

Commonwealth Health Partnerships 2015



The Commonwealth

Commonwealth Health Partnerships 2015

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Commonwealth Health Partnerships 2015

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Contents

Foreword	7	Optimising adolescent sexual and reproductive health in the SADC region	53
<i>Commonwealth Secretary-General Kamallesh Sharma</i>		<i>Trisha Ramraj, Darshini Govindasamy, Cathy Mathews and Ameena Goga</i>	
Modernising our health systems: Catering for an ageing population.....	8	Building resilience in health systems in Africa.....	57
<i>Joanna Nurse</i>		<i>Lord Paul Boateng</i>	
Overview		Ebola: A watershed for health systems and development?	60
Universal health coverage and ageing.....	9	<i>Hossinatu Mary Kanu, Senesie Margao and Jill Iliffe</i>	
<i>David Evans</i>		Establishing vaccine infrastructure: Learning from the polio endgame	66
Universal health coverage and healthy ageing		<i>Judith Diment</i>	
Healthy ageing is vital to sustainable development	14	Health impact assessments: Communities and extractive industries in Africa	69
<i>K. Srinath Reddy and Manu Raj Mathur</i>		<i>Filipe Silva, Mark Dival, Francesca Viliani and Salim Vohra</i>	
Social determinants and healthy ageing.....	17	Non-communicable diseases and disabilities	
<i>Ruth Bell and Michael Marmot</i>		Linking productive ageing to NCD prevention and control.....	74
The right to health: From legal principle to post-2015 indicators	21	<i>George Alleyne</i>	
<i>Devi Sridhar and Go4Health co-researchers</i>		Ageing and mental health: Addressing the impact on health care.....	78
Palliative care: Planning for an ageing world.....	26	<i>Chee Ng, Brigid Ryan and Edmond Chiu</i>	
<i>Liz Grant</i>		Dementia in low- and middle-income countries: The case for community care	82
Challenges of ageing and good health: Views from Malaysia	29	<i>Caroline Kim and Soumitra Pathare</i>	
<i>Shila Kaur</i>		Disability-inclusive development in the Pacific: A regional approach	85
Planning for an ageing population: The WHO perspective.....	32	<i>Pacific Islands Forum Secretariat</i>	
<i>Shin Young-soo</i>		Global challenge of hearing impairment: Breaking the silence	89
Against isolation in old age: Towards a new view of social protection and rights	35	<i>Daksha Patel, Andrew Smith and Hannah Kuper</i>	
<i>Kimberley Brownlee</i>		NCDs, disability and ageing: Interrelated challenges in the post-2015 era	91
Growing old together: Policy and public health responses to ageing	38	<i>Alzheimer's Disease International, Handicap International and NCD Alliance</i>	
<i>John Beard and co-collaborators, Lancet Series on Ageing (2014)</i>		Non-communicable diseases: Children and adolescents.....	95
Ageing and disease burdens: Our present and future	42	<i>NCD Child</i>	
<i>Martin Prince and co-collaborators, Lancet Series on Ageing (2014)</i>			
Universal health coverage and communicable diseases			
Health care systems and antimicrobial resistance	48		
<i>Laura J. Shallcross and Dame Sally C. Davies</i>			
Closing every gap: The AIDS response	51		
<i>Michel Sidibé</i>			

Leadership, resourcing and governance

Rwanda's quest for universal health coverage.....	100
<i>Agnes Binagwaho</i>	
The role of social protection in Africa.....	103
<i>Mary Amuyunzu-Nyamongo, Alice Sinkeet and Brenda Maina</i>	
Universal health coverage and the elderly: Basic principles.....	107
<i>S. Arulraj, R. V. Asokan and R. Hewapathirana</i>	
Models of governance for the health sector	111
<i>Jenny M. Lewis</i>	
Essential ingredients for UHC:	
Political and technical leadership.....	115
<i>Amanda Folsom</i>	
Universal health coverage in Singapore: An ethical reflection	118
<i>Calvin Wai Loon Ho</i>	
The post-2015 challenge: A short report on the Singapore Ministerial Meeting	122
<i>Derrick Heng and Kelvin Bryan Tan</i>	
Health workforce migration: The case of UK and New Zealand.....	124
<i>Robin Gauld and Simon Horsburgh</i>	
Solidarity, equity and rights-based approaches to health provision	128
<i>Su-ming Khoo</i>	

Commonwealth member countries

Antigua and Barbuda.....	132
Australia.....	135
The Bahamas	139
Bangladesh	142
Barbados.....	145
Belize	148
Botswana.....	151
Brunei Darussalam	155
Cameroon.....	158
Canada	161
Republic of Cyprus.....	165
Dominica.....	168
Fiji	171
Ghana.....	174
Grenada.....	178
Guyana	181
India.....	184
Jamaica.....	187
Kenya.....	190
Kiribati	193
Lesotho.....	196

Malawi.....	199
Malaysia.....	203
Maldives.....	206
Malta	209
Mauritius.....	212
Mozambique.....	215
Namibia	219
Nauru.....	222
New Zealand.....	225
Nigeria	229
Pakistan	234
Papua New Guinea	237
Rwanda.....	240
St Kitts and Nevis.....	243
Saint Lucia	246
St Vincent and the Grenadines	249
Samoa.....	252
Seychelles.....	255
Sierra Leone	258
Singapore.....	261
Solomon Islands.....	264
South Africa.....	267
Sri Lanka	270
Swaziland.....	273
Tonga.....	276
Trinidad and Tobago	279
Tuvalu	282
Uganda.....	285
United Kingdom	288
United Republic of Tanzania.....	292
Vanuatu	295
Zambia.....	298

Reference

Key indicators on the Millennium Development Goals – Health	302
Key indicators on the Millennium Development Goals – General	303
Health systems.....	304
Over 60s	305
Mortality by cause of death among children aged under five years.....	306
Mortality by cause of death among all age groups	307
Human and economic development	308
Child mortality	309
Maternal mortality	310
Life expectancy and HIV/AIDS	311
Access to qualified health personnel.....	312
Expenditure on health.....	313
Definitions, sources and clarifications of the Millennium Development Goals.....	314
Acronyms and abbreviations	317
Acknowledgements	319
Project partners.....	320

Introduction



The Commonwealth

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Vision

To be an outstanding leader in health and other public infrastructure development, while meeting the needs of the client and the community.

Mission

We are committed to excellence in design and implementation of high quality, efficient and cost-effective solutions. We aim to respond accurately to the transformation of health care, education, housing and infrastructure delivery by developing outstanding facilities.

Sakhiwo Infrastructure & Health Solutions is a multi-skilled consultancy company.

We specialise in strategic health planning, health briefs, facility planning, architectural design, project and construction management, health technology, consultancy and advisory services related to hospital infrastructure development, commissioning and health facility maintenance management.

Sakhiwo acts as an implementing agent/multi-disciplinary development agency for hospitals and health facilities and has pulled together some of the best expertise in South Africa for the establishment of Sakhiwo Infrastructure and Health Solutions.

CURRENT PROJECTS

South Africa

- Cecilia Makiwane Hospital
- Lilitha College of Nursing
- Frere Hospital, new Oncology and ICU
- Sipepetu District Hospital
- Thabazimbi District Hospital
- Letaba Regional Hospital

Zimbabwe

- The Avenues Woman and Child Hospital
- Selborne Hospital

Mozambique

- Nampula General Hospital
- Maputo Central Hospital

The Gambia

- Horizons Private Clinic (TA for AfDB)

Namibia

- Otjiwarongo Referral Hospital
- Ondangwa District Hospital
- Khomas District Hospital
- Katutura Hospital
- Windhoek Central Hospital



Foreword

Kamalesh Sharma, Commonwealth Secretary-General

This is a watershed year for development. As we measure progress made towards the Millennium Development Goals over the past 15 years, planning is already underway towards creating the architecture of a new global development framework.

In her 2015 Commonwealth Lecture, the administrator of the UN Development Programme, Helen Clark, referred to the proposed configuration of the new agenda, with goals grouped under the headings of dignity, people, planet, prosperity, partnerships and justice. She described these as the six essential elements of an agenda for human and sustainable development that would enable nations to grow and develop in inclusive ways within the boundaries set by nature.

Public health has the greatest impact on the dignity of people individually and in community, and is a core component in bringing about social, economic and environmental development. It is the highest collective priority for all member states of the Commonwealth. Our citizens inevitably raise their expectations of health care systems in terms of quality and access, and our Commonwealth Charter recognises the necessity of access to affordable health care, and emphasises the importance of promoting health and well-being in combating communicable and non-communicable diseases. To achieve substantive and sustainable transformation globally there needs to be progress on health indicators in all societies.

In this year when we celebrate 'A Young Commonwealth', we are also aware that longer life expectancies mean we need to pay greater attention to aspects of ageing and good health. Citizens of all ages and backgrounds should be able to enjoy active and fulfilling lives, with the opportunity to share equitably in social, economic and technological advancements.

This publication brings together valuable insights from a wide range of Commonwealth perspectives on the provision of universal health coverage in the context of a post-2015 sustainable development framework. Consideration is given to a broad spectrum of health issues that concern Commonwealth citizens, and where mutual support and collective action by our member states can make a difference.

Our co-operation and collaboration on these, as on many other areas of shared concern, achieve impact and bring change at



both local and global level, thanks to the personal links and institutional networks that are such distinctive features of the Commonwealth connection. Important and highly commendable aspects of this work have been carried forward for many years by our Commonwealth family of organisations for health professionals. By bringing together expert analysis of health systems in our member states with data on health outcomes, *Commonwealth Health Partnerships 2015* helps us to understand the context within which we strive to make progress, and inspires us afresh to utilise the immense potential and goodwill of the Commonwealth to bring transformative change in the lives of our citizens.

Modernising our health systems: Catering for an ageing population

Joanna Nurse, Director, Health and Education Section, Commonwealth Secretariat

Commonwealth Health Partnerships 2015 illustrates the multiple public health challenges we face across the Commonwealth and presents the case for a sustainable way forward. Although the Commonwealth has more than one billion young people, it also has an increasingly ageing population. This reflects the many improvements made by public health initiatives in reducing communicable diseases, however, as the population ages, we see a transition to increasing rates of non-communicable diseases. This is most marked in high- and middle-income countries, especially in some of our small island states; however, many parts of Africa and Asia experience a double burden, with high rates of both communicable and non-communicable diseases.

As health needs change, our health systems need to adapt and modernise to reflect those changes. The post-2015 Sustainable Development Goals advocate universal health coverage (UHC) – to ensure equitable access to health services in order to improve health and support wider development outcomes. The vision for UHC is one that is supported globally and by the Commonwealth. However, the challenges for achieving this are multiple and complex – estimates show that the majority of countries, even high-income countries, cannot currently afford to implement UHC. This is further compounded by the increasing health care costs from an ageing population, as well as a lack of capacity in terms of human resources for health.

We need to learn from the earlier successes of implementing universal education, which started its ambition at increasing attendance within primary schools, and is currently scaling this up to cover basic education and enhanced quality. Although we now have robust policy support for financing UHC, we need to start the process of supporting countries in developing sustainable policies for its implementation.

The Commonwealth Secretariat, over the coming years, plans to develop policy frameworks and to build capacity to enable countries to strengthen their policies for UHC. In particular, the Commonwealth Secretariat will develop economic tools to provide countries with a framework to consider the most cost-effective approach to shape services, with a balance between prevention and promotion, as well as primary, secondary and tertiary health

care. The aim of this framework is to enable the development of sustainable policy for UHC and to support planners in identifying areas that have a high health and cost impact, and approaches that are cost effective and bring good returns on investment. To complement this, assessment and planning tools will be developed to ensure priorities, services and workforce development reflect country-specific needs, rather than becoming supply driven. The health profiles included in this publication, along with the concurrent work on burden of disease being developed as part of the Health Hub, will provide Commonwealth member countries with data to help inform planning to shape policy for UHC.

We also need to take advantage of working across sectors within the Commonwealth Secretariat, as well as with partners, in order to enhance our impact on addressing inequalities and the wider determinants of health. For example, many countries, especially those making rapid progress in development, are experiencing poor levels of urban air quality, which has a considerable impact on heart and respiratory disease. The Commonwealth will endeavour to support healthy cross-sector policy development in order to create healthy environments and communities that promote healthy living across the life course, including the needs of an increasingly ageing population.

In doing so, the ambition of strengthening policy for UHC will enable countries to create communities, services, and the capacity for improved health and well-being across the Commonwealth in a sustainable way. Additionally, in order to ensure robust health security, comprehensive UHC also needs to include the strengthening of health protection services, so that we continue to address challenges from communicable diseases, as well as the increasing threats from climate change and natural disasters.

By sharing evidence and good practice, and strengthening networks and regional responses via the Health Hub, we can scale up our response to building capacity for policy on UHC, including addressing non-communicable diseases. Moreover, the benefits of a healthy population support higher levels of educational outcomes, improve resilience, reduce crime and disorder, enhance productivity, and improve social and economic development.

Overview

Universal health coverage and ageing

David Evans

A recent *Lancet* series on ageing showed that, globally, people aged 65 years and more will outnumber children younger than five years within the next five years for the first time ever (Suzman et al., 2015; see page 38 and page 42 of this volume). The rate at which populations are ageing is also rising – the proportion of people aged 60 years or more increased by only two per cent (from eight per cent to ten per cent) over the last 60 years, but will increase by another 12 per cent in the next 40 years (Bloom et al., 2015). At that point two billion people will be aged 60 or over compared to 800 million now (ibid).

This remarkable ageing of the world's population extends to all countries.

These global developments reflect substantial falls in infant and child mortality rates, linked to reductions in communicable diseases (Mathers et al., 2015) and improvements in overall living standards. However, since the 1970s there have also been clear signs that life expectancy at age 60 has been increasing as well, particularly in high-income countries, due to declines in non-communicable disease mortality during old age. The increase in life expectancy for the elderly shows no signs of declining: people will continue to live longer and, without increases in fertility, the proportion of elderly people in the world will continue to grow.

What is universal health coverage and how far has the world come?

Since the publication of the World Health Report 2010, titled *Health Systems Financing: The Path to Universal Coverage*, there has been a growing political consensus globally that universal health coverage (UHC) is an important guiding principal and goal for health-system development. This consensus has resulted in resolutions in the World Health Assembly¹, World Health Organisation (WHO) Regional Committees² and the UN General Assembly³. Between 2012 and 2013 a series of international declarations and conferences emphasised the importance of UHC to countries⁴, and there was even the first ever international UHC day on 12 September 2014 supported by a global coalition of more than 500 health and development agencies. All of this was influential in ensuring that UHC is accepted as one of the targets of the health goal in the proposed Sustainable Development Goals (SDGs). If this is endorsed during the 2015 session of the UN General Assembly, this will give added momentum to countries seeking to move closer to UHC over the next 15 years.

To do this requires that health services of good quality be available to serve population needs across the lifespan and all levels of care

(WHO, 2013a). Essential medicines and health technologies need to be available, with motivated health workers in the right numbers in the right places (Sousa et al., 2013; Tangcharoensathien and Evans, 2013). Data and evidence to inform decision-making in a timely manner must be available, and good systems of governance must be in place to set the direction and rules of the game, and ensure the desired outcomes are achieved.

Sufficient funds for health must be available and these funds need to be raised largely through forms of prepayment rather than using direct out-of-pocket payments, with subsequent pooling of funds to spread risks across the population (WHO, 2010). The available resources also need to be used as efficiently and equitably as possible, and with avoidance of waste and corruption.

A growing number of countries in all regions have made political commitment to UHC more explicit in their national policies over the last five years to meet these challenges. Many have made intensive efforts to raise more money for health, to reduce direct out-of-pocket payments, and/or to improve efficiency and equity in the way resources are used. As a result, there have been steady reductions in the extent to which countries have relied on out-of-pocket payments to fund their health systems throughout much of the developing world, although the results of a joint WHO/World Bank update on the number of people suffering financial catastrophe in the world due to out-of-pocket health payments will not be available until later in the year.⁵ The last estimate was that 150 million people suffer financial catastrophe each year and 100 million are pushed into poverty simply because they get sick, use health services and have to pay out of pocket (Xu et al., 2007).

At the same time, coverage of some of the most essential health services has increased substantially, particularly those targeting the health-related Millennium Development Goals (MDGs). Although they have not all been fully achieved, the UN reports remarkable progress – 3.3 million deaths from malaria averted in 2000–12, 22 million deaths from TB averted since 1995 and 2.3 billion people gaining access to an improved drinking water source, for example (UN, 2014).

Despite this, a great deal remains to be done. Even for services aimed at non-communicable diseases (NCDs), and maternal and child health, the focus of the current MDGs, coverage remains less than ideal, with substantial inequalities within and across countries.⁶

Population ageing and UHC

Moving towards UHC is a dynamic process. The options for addressing people's health needs are continually expanding as new

From the keynote paper 'Universal health coverage with an emphasis on aging' for the Commonwealth Health Ministers Meeting, 17 May 2015, Geneva.



Riccardo Mayer / Shutterstock.com

The UN reports that 2.3 billion people have gained access to drinking water as a result of the Millennium Development Goals

health technologies and medical products become available. People also tend to demand more and better services as they get richer, so demand rises as well as supply. Mostly these innovations come at higher cost. Population increases add to the pressures countries face to meet these demands.

Ageing and the resulting epidemiological transition from communicable to non-communicable diseases and injuries exacerbate these tendencies. Low-income countries must now address the continued problems associated with the health MDGs

Universal health coverage

UHC is now widely understood as the ambition to ensure that *all* people obtain the health services they need (promotion, prevention, treatment, rehabilitation and palliation) without suffering financial catastrophe or being impoverished because of the need to pay out of pocket at the time they receive them (WHO, 2010).

Some countries will move faster than others and some are already closer to this ideal than others. However, it is a process of progressive realisation in which all countries, richer and poorer, can take steps to increase the number of people covered, expand the health services they obtain and/or strengthen the financial protection people receive, or at least ensure that they do not move backwards (ibid).

as well as the increased burden of NCDs and injuries. The member states of the UN have recognised this by agreeing that five of the 13 targets under the health goal in the SDGs focus on NCDs and injuries, something they will further discuss and then vote on in the 2015 session of the United Nations General Assembly.

To do this, low- and middle-income countries (LMICs) will need to focus their service delivery systems more heavily on NCDs and on integrated health services that address the multiple morbidities in older people. There is general agreement that much of the disability in older age is preventable or at least deferrable through a mix of health and social policies (Beard and Bloom, 2015; Mathers et al., 2015).

This is important in all countries, but it is particularly important to address cost-effective means of health promotion and disease prevention in low-income settings before their still-developing health and health financing systems are overwhelmed by the burden of treating older people with NCDs and associated disabilities.

Countries seeking to move more rapidly towards UHC or maintain their current achievements will face continuing demands to raise additional financial resources. They do this in the face of a slowdown in development assistance generally, and development assistance for health since the financial crisis hit the richer countries in 2009. Many have moved away from the target of 0.7 per cent of gross national income to be spent on development assistance.

Indeed, even though aid disbursements for health have not yet fallen, commitments – or promises made by donors for future disbursements – have suggested a greater need for aid-recipient countries to rely on domestic sources of funding (Elovainio and Evans, 2013).

At the same time, the ageing population will be making increased demands on forms of social security and pensions, putting extra pressure on finances and tax revenues (Bloom et al., 2015). Interestingly, this is something low-income countries with large informal sectors have struggled with for some time (Tangcharoensathien et al., 2011).

The good news is that the recent high rates of growth in LMICs offer considerable fiscal space for expanding spending on health and these growth rates are projected to continue – for example, the International Monetary Fund suggests that Sub-Saharan African economies will grow at a real rate of around five per cent in each of the next two years and emerging countries in much of Asia at more than six per cent (IMF, 2015). In addition, there are options for all countries to raise more funds for health if they wish. One of these options involves taxes or levies on products that are harmful to health, such as tobacco, alcohol and perhaps sugars, salt and trans fats (WHO, 2010). These are frequently advocated by the WHO and ministries of health because they provide a win-win situation: they raise additional funds for health but at the same time reduce consumption of products that are harmful to health, thereby contributing to the necessary decline in communicable diseases and disability later in life.

The health sector, however, cannot alone address the problems posed for progress towards UHC by ageing and NCDs. Multi-sectoral strategies and policies are required rapidly, even in the countries where communicable diseases, and child and maternal health issues still predominate. Flexible policies on retirement will allow people who are willing and able to work longer. Social protection policies that reduce social deprivation in childhood and young-adult years will reduce health costs later in life. In some countries improving the efficiency of current government revenue collection and reducing waste and inefficiency can go a long way to raising additional funds. Many countries are already expanding their revenue-raising options in ways that ensure that everyone who can afford to contribute does so. This type of action can complement steps to increase the attention paid to NCDs and injuries in health systems and, importantly, to promotion and prevention, which will reduce and delay the onset of costly diseases and disability.

Conclusions

UHC has become widely accepted as a goal for health-systems development globally and, as such, is reflected as one of the proposed health targets in the current draft of the SDGs. The unprecedented rate of population ageing and the associated epidemic of NCDs and injuries pose numerous problems for countries wishing to move closer to UHC as well as for countries that are already close to achieving it. Sustaining these achievements will be difficult unless there is a concerted, multisectoral approach involving a much greater attention to health promotion and prevention in health as well as

accompanying changes to employment laws and practices, and to ways in which revenue is raised.

Endnotes

- 1 Resolution 64/9.
- 2 Sixty-fifth World Health Assembly: Progress reports. Report by the Secretariat, A65/26, 29 March 2012.
- 3 Resolution A/67/L36.
- 4 Examples: the Bangkok Statement; Kigali Ministerial Statement on Universal Health Coverage and Long Term Harmonization of Social Health Protection in the East African Community; Mexico City Political Declaration on Universal Health Coverage; Tunis Declaration all in 2012. In 2013: Turkey Ministerial Conference on Universal Health Coverage; the WHO/World Bank Ministerial-level Meeting on Universal Health Coverage and the Global Conference on Universal Health Coverage for Inclusive and Sustainable Growth held in Japan in 2013.
- 5 For the health expenditure database for all WHO member states, see: www.who.int/nha [Accessed 17 April 2015].
- 6 For example, coverage with DTP3 immunisation has achieved perhaps the greatest success, but remains at 70 per cent in the WHO's African region and 75 per cent in the South-East Asian region (WHO, 2014). Coverage with a broad mix of services targeting maternal and child health averaged around 65 per cent in countries covered by demographic and health, or multiple indicator cluster surveys. In the lowest wealth quintile, fewer than 50 per cent of women and children received the health services they needed compared to around 77 per cent in the highest wealth quintile (WHO, 2013b).

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Universal health coverage and healthy ageing



The Commonwealth

Healthy ageing is vital to sustainable development

K. Srinath Reddy and Manu Raj Mathur

One of the defining features of the 21st century will be the large number of persons described as 'elderly' (over 60 years) and 'very elderly' (over 80 years) who will be living across the world. It is estimated that the number of elderly persons presently alive exceeds the cumulative number of all elderly persons throughout preceding human history. Between 1950 and 2050 the world population will have increased three-fold, but the population of elderly people will have risen nine-fold and that of the very elderly 28-fold. Such has been the dramatic rise in longevity over the last century. Falling age-standardised mortality rates are increasing the life expectancy and, along with declining fertility rates, are increasing the proportion of the aged in most countries (Mathers et al., 2015).

While the phenomenon of ageing was previously most evident in wealthy countries, low- and middle-income countries (LMICs) are experiencing it at a faster pace than the high-income countries did in the 20th century (UNDESA, 2012). In China, the population of the elderly presently constitutes 15.2 per cent of the population, totalling 210 million. In India, which has a much younger

population, there are more than 90 million elderly people. By 2050, two billion people will be aged over 60, and 80 per cent of older people will live in LMICs. Chile, China and Iran will have a greater proportion of older people than the USA. By 2050, 400 million people will be over 80 years globally – 100 million in China alone. All societies need, therefore, to design a framework of inclusive and sustainable development to productively and equitably accommodate this new demographic reality in the economy and ethos of the 21st century.

In this century, both physiological and economic realities are directing us to re-examine the antiquated definitions of 'ageing' and 'old-age dependency ratios' (OADR), and explore the concept of 'prospective life expectancy' as the basis for developing a dynamic definition of ageing (Basten, 2013). We no longer see ageing as a cataclysmic change that occurs on a pre-determined calendar date and abruptly guillotines productivity at an arbitrary age of 60 or 65 years (dates set in the labour market economies a century ago). Instead, we view it as a multi-dimensional construct that integrates lengthening life with extended functionality. As 70



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Most people hope to age gracefully, retain their autonomy and not become a burden to family members

becomes the new 60 – in terms of physical and cognitive fitness, and anticipated further life expectancy – there is need for a profound reimagining of ageing and retirement.

Healthy ageing

This calls for a 'life course approach' that recognises that 'healthy ageing' is a legacy of many factors operating since conception and birth, across all the years of life that precede the ageing threshold. Unhealthy ageing is the result of cumulative inequities and behavioural indiscretions experienced over one's lifetime. The continuity of the biological thread connects the nutritional exposure of the mother (preconception period and pregnancy) and of the child to health in later life. The epigenetic effects of early life nutrition are now known to cast a long shadow on adult life, through susceptibility to cardiovascular disease, diabetes and cancers. The Millennium Development Goals of improved maternal and child health are thus linked to the potential for healthy ageing, a relationship that reinforces the integrative nature of sustainable development.

At the same time, we have also recognised that human biology, and hence health or illness, is profoundly affected by the social environment. Non-communicable diseases now constitute the dominant public health challenge of the 21st century and are propelled by social determinants that condition risk behaviours, which in turn alter biologic risk factors. Heart diseases, stroke, diabetes, cancers and chronic respiratory diseases are growing as a global threat, due to confluence of developmental and demographic transitions. Alongside the disabling effects of these non-communicable diseases, which extend their presence and perils from preceding adult life to the elderly years, the rise of mental illness in this age group poses a major threat to the quality of life (Prince et al., 2015). Alzheimer's disease, vascular dementia, depression and a variety of neuropsychiatric disorders affect the elderly and call for an effective and empathetic response from the health system and the social environment.

The imperative of the post-2015 sustainable development agenda is to minimise the influence of factors that impede the progress to healthy and active ageing by acting to promote good health at all stages of life, and create a positive legacy that benefits health in the later years. The health of the elderly does pose some distinct problems, such as a higher frequency of multiple co-morbidities, greater physical frailty and instability in advanced years, and impaired vision, hearing and memory. However, healthy living and

supportive health systems in earlier years can help people to cross the ageing threshold with a substantial credit balance of good health. Timely interventions can prevent or greatly limit disability and maintain functionality.

It is an elemental desire of the elderly to age with grace, retaining their autonomy and remaining connected with a world that still values them, and to finally ease out of life without unduly prolonging their suffering through reflexive use of unfeeling and often unhelpful medical technologies. As one enters the 'golden years', there is increasing need for attention to structure (biological integrity of body parts and their co-ordination), function (physical and mental ability to carry on with daily living with minimal dependence on others) and participation (social engagement with family, friends and an external world that grows less familiar by the day). While healthy living in earlier years can make the elderly fit and functioning rather than frail and feeble, the reality of multiple physical and mental impairments falls to the lot of many as they age.

A change of focus

There is a need for a re-configuration of health systems, a re-focus from mere disease management to health promotion and risk reduction. Even in clinical care settings, recognition of multi-

Key messages

- Barriers to healthy and active ageing must be removed
- Opportunities must be created for productive participation of the aged in all domains of human activity
- Society must not only use these assets but also invest in them because of the high returns in social and even economic development
- Needs of health care, social security and physical safety of the elderly must be recognised, along with gender- and poverty-related specificities, for effective multi-sectoral responses
- There is a need for 'all of society' engagement, with wide-ranging partnerships, to accomplish the above objectives

Action pathways

Transform mindsets

- Change the prevailing dogmas on 'ageing' and 'retirement' to accommodate contemporary concepts on fitness and productive potential
- Promote awareness and understanding of the 'life-course approach' to healthy ageing
- Counter the negative cultural stereotypes that generate inter-generational animosity and promote positive images that create harmony

Transform institutional and regulatory frameworks

- Create robust pension plans to provide financial security
- Implement UHC with sensitivity to the needs of the elderly
- Provide a safe physical environment through prescribed building standards, age-friendly urban design and transport systems
- Legislate the social and economic rights of the elderly

Transform support systems

- Provide an enabling social and economic environment that supports healthy and happy ageing through health-promoting influences across the life course (nutrition, formal and informal education for lifelong learning, productive work, financial security, clean environment)
- Promote informed individual choices related to health, work and life transitions
- Create dependable support systems to provide appropriate, empowering and empathetic health care in home or institutional settings

morbidity and prioritising the restoration of functionality should lead to new professional approaches that provide patient-centred, multi-disciplinary, integrated care. Geriatricians who can provide multi-system evaluation and integrated care would have to play a greater role than disease- or organ-specific specialist care providers. From dental care and visual or hearing aids to nutrition counselling, the special needs of the elderly need attention from the health system. At the same time, allied health professionals like physiotherapists, mental health counsellors and elderly care providers would be needed in larger numbers. Non-physician case managers, who are trained to provide care for multiple chronic conditions, have been shown to be effective in providing integrated and continuous personalised care in the long term (Sutherland and Hayter, 2009). Physical rehabilitation has to be assisted by a variety of assistance devices and supportive services. Advances in technology should be appropriately utilised to reduce physical dependence, improve mobility and reduce social isolation. Innovations in systems of care delivery must improve both independent and assisted living.

Universal health coverage (UHC) becomes especially important in adequately addressing the health needs of the elderly, who not only access health care more often but also become financially vulnerable if they are no longer generating an income. Quite often insurance schemes do not provide coverage to persons with pre-existing health conditions or do so at unaffordable premiums. The elderly, who often fall into this category, need health care that is tax funded or heavily subsidised through government-sponsored social insurance schemes. Access to essential drugs, diagnostics and technologies too needs to be an integral part of the UHC framework.

At the same time, we need to change societal attitudes, from considering the elderly as non-productive dependents to regarding them as mature adults who can still contribute as mentors, through shared expertise and experience. That will make them feel relevant and valued, protecting their mental health and motivating them to preserve their physical health. Their productive participation and social security can be promoted by extended retirement ages and secure pension plans. The elderly should not experience active discrimination (social exclusion), apathetic neglect (social isolation) or disability-induced non-participation (social withdrawal). Elderly abuse, which is an extremely deplorable form of mistreatment, must be curbed both through strong legal safeguards and public education (Daichman et al., 2002).

The need for strong social support systems is reinforced by the ‘feminisation of ageing’, which is now being witnessed even in large Asian countries like India and China. Women survive longer than men and are more numerous among the elderly and especially among the very elderly. Widowhood and abandonment by families, superimposed on lack of assured income, can render many women extremely vulnerable. Lack of kinship support is a growing problem for nuclear families resulting from urbanisation and migration of younger members of the family. Participation in social networks and group physical activities must be encouraged to protect physical and mental health, even as social security measures are provided.

Health and well-being at all ages

The proposed health goal among the Sustainable Development Goals (SDGs) to be adopted by the United Nations this year is ‘health and well-being at all ages’. This goal, as well as the targets

that address health priorities across the life course along with the needed health system responses, are highly relevant to an ageing world population. Other SDGs related to poverty, gender, food security, education, conflict mitigation, environment and urbanisation also impact on the health and well-being of the elderly. The framework of sustainable development must, therefore, envision and enable the full and fulfilling lives that mature adults aspire to lead in the coming decades. The right to lead such a life with dignity must be encased in the safe shell of social solidarity and nurtured by the values of inter-generational equity and inclusive development. Ultimately, how well the most vulnerable segments of the human family fare, at both ends of the age spectrum, will be a test for our civilisation in this century.

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Social determinants and healthy ageing

Ruth Bell and Michael Marmot

Healthy ageing is arguably the most highly valued aspect of human development. It means living longer, free from illness and disabilities that limit the activities of daily life. Societies need to adapt in order to enable all older people to live healthy and fulfilling lives for longer.

In policy debates about ageing populations, attention is often rightly given to addressing the increasing health care needs of older populations. Two related issues are worthy of policy attention. Firstly, that while more people are reaching ages 60 or 65 (ages most commonly used in research and discussions of ageing) in good health, this is unequally distributed within and between countries. In England, for example, the English Longitudinal Study of Ageing found that professional and managerial classes have fewer illnesses in their 70s than routine and manual classes do in their mid-50s (McMunn et al., 2003).

The second and related issue is that attention must be given to the wider social determinants of health (the economic, social, environmental, political and cultural factors that affect health across the life course) and their impact at older ages.

The linked agendas of health inequities and ageing are common to all Commonwealth countries, but the national contexts are very different. Measurement and monitoring of health outcomes and the social determinants of health, disaggregated according to dimensions of inequity, within each country are therefore key to the development of contextually appropriate policies to enable everyone to live long, healthy and fulfilling lives.

Living longer in the Commonwealth

Life expectancy at birth is the most widely available measure of ageing that can be compared across countries. Increases in life expectancy documented over the last 60 years are cause for celebration. Figure 1 shows average life expectancy data from 1950 projected to 2050 for five Commonwealth countries: the UK, a high-income country; South Africa, an upper-middle-income country; India, a lower-middle-income country; and Kenya and Bangladesh, two low-income countries.¹

Life expectancy at birth in the UK has increased by 11 years since the 1950s. In the same period life expectancy has increased by



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Healthy lifestyles throughout the life course increase the chances of experiencing good health in older years

approximately 30 years in India and around 27 years in Bangladesh, one of the world’s poorest countries. Progress in life expectancy in Kenya stagnated from the late 1980s and suffered a reversal in the later 1990s, attributed in part to deaths from HIV/AIDS. Life expectancy in South Africa declined even more severely between 1990–95 and 2005–10. It is currently predicted that life expectancy for Kenya and South Africa will increase by one to two years every five years until 2050.

For the current period 2010–15 there is a 19-year difference in life expectancy at birth between Kenya and the UK. This is a sizeable gap to close. Figure 1 shows that considerable progress is possible in relatively short periods of time, not least because it has happened in other countries.

Life expectancy increase rates

Life expectancy has increased at a faster rate in many developing countries than in high-income countries. Figure 1, comparing the UK and Bangladesh, illustrates this point. The proportion of older people (for this purpose, 60 years and over) is growing in developed and developing countries. Indeed, the older population globally is currently growing at a faster rate (1.9 per cent per annum) than the total population (1.2 per cent per annum). The growth of the global older population is expected to accelerate to 2.8 per cent per annum by 2025–30 – 3.5 times faster than the total population growth rate (0.8 per cent; UNDESA, 2012).

While the proportion of older people is higher in high-income countries, the actual numbers of older people are greater in less-developed regions overall and their numbers will continue to rise, and rise faster than in more developed countries. In India, for example, while only 5.1 per cent of the population was over 65 years in 2010, this equates to around 61.5 million people. The total population of the UK was about 62 million in 2010, with 16.6 per cent, or 10.3 million people, aged over 65 years.

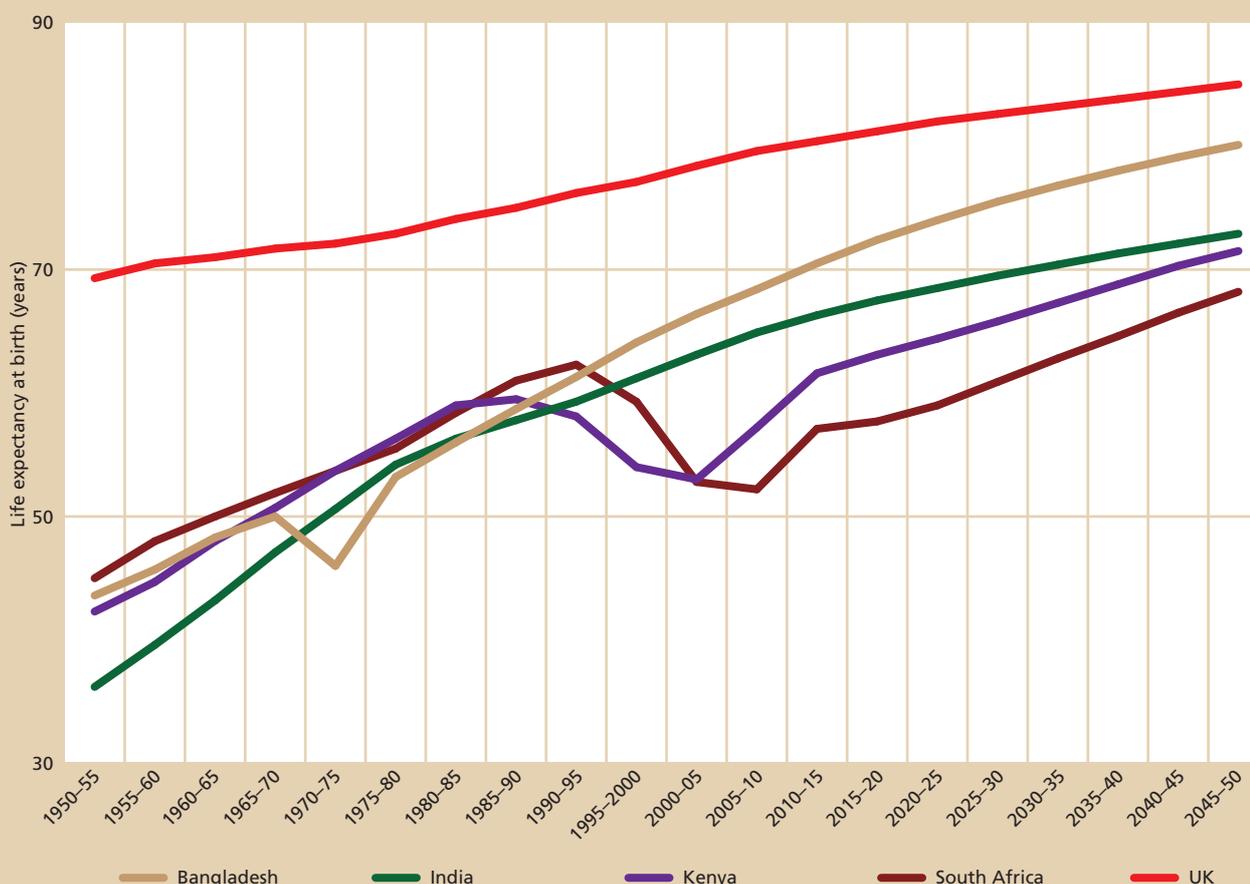
Commonwealth countries already have sizable populations of older people and these figures are growing. The number of older people is higher in developing countries, which have less well-established and formalised social protection systems in place to support older populations than high-income countries. Instead, older people in developing countries depend to a much greater extent on informal social protection and support provided by families.

Tackling health inequities

Where data is available to reveal the distribution of health within countries we see inequalities in life expectancy. The WHO Commission on Social Determinants of Health (CSDH) reporting in 2008 cited a 28-year difference in life expectancy for men between Calton (54 years), a deprived area of Glasgow, and Lenzie (82 years), a wealthy suburb only eight miles away (CSDH, 2008).

In Cape Town, South Africa, the poor and overcrowded township of Khayelitsha, whose residents are predominantly black, has the

Figure 1 Life expectancy estimates and projections



Source: UNDESA, 2012

highest mortality rate from all causes. Meanwhile, the Southern district, a leafy, spacious suburb of predominantly wealthy, white English speakers, has the lowest mortality rate from all causes. Notably, in all districts of Cape Town, non-communicable diseases account for a higher proportion of deaths than communicable diseases, including HIV/AIDS. Deaths from injuries exceed deaths from HIV/AIDS.

It is not just poor health for the poor; where there is data, we see a gradient in health from the top to the bottom of the social hierarchy. Inequities in health are also evident by gender, race and ethnicity, between indigenous groups and the population as a whole, and by area of residence (e.g. urban/rural). Reducing in-country health inequalities would accelerate progress in average life expectancy gains in Commonwealth countries.

Strategies

Health inequities arise from inequalities in the conditions in which people are born, grow, live, work and age, and the underlying unequal distribution of power, money and resources that drive these inequalities (CSDH, 2008). Social disadvantage in early life affects health at older ages. The CSDH took the position that health inequalities that are avoidable by reasonable means are inequitable, and that addressing these inequities in health is a matter of social justice. The CSDH recommended holistic action across government and society on the economic, political, environmental and cultural determinants of health, which together comprise the social determinants of health (SDH).

Countries and local regions around the world are taking action on SDH, but progress remains highly variable (Marmot, 2012). The phrase ‘do something, do more, do better’ used by the WHO European Review of Social Determinants and the Health Divide (WHO/Europe, 2013) applies equally to Commonwealth countries. By this we mean that where there is very little coherent strategic action on SDH – do something; where some action is happening – do more; where policies and interventions are in place – do better.

Measurement and monitoring can drive equity

Measurement and monitoring can drive equity. Typically, though, there is an information paradox – less data is available and analysed where the need for action on SDH is greater. Yet everywhere policy-makers need good quality information on health and social determinants of health. There is a need to measure what matters: civil registration (including births and deaths as a minimum), access to health care, communicable and non-communicable disease rates, and causes of death. There is also the need to measure and monitor social determinants of health.

Where action on SDH is implemented – for example to increase access to quality education, a key determinant of health – there is a need to know the impact of action, in this example of education, whether inequalities in educational attainment are being reduced as a result, and not just how many more children are enrolling in school, important though this information is.

Context matters

Inequalities are at the heart of the current global development discourse. The proposed post-2015 Sustainable Development Goals include equality-focused targets for poverty and hunger, health, education and lifelong learning, gender, water and sanitation, economic growth, employment and decent work, cities and human settlements, justice and society, as well as a specific goal to reduce inequality within and among countries (UN, 2014).

Inequalities in wealth and income are a prominent feature of the economic landscape in countries around the world. Where there is lack or inadequate public provision of services and social protection systems, inequalities in income and wealth all too often translate into unequal access to nutritious food, clean water and sanitation, quality education, secure employment opportunities, health care and decent housing. These social inequalities drive inequities in healthy ageing. Those groups whose wealth and incomes fail to keep pace with others in society are at risk from becoming excluded from the social and health benefits that increasing national prosperity brings. They are also at greater risk from environmental disasters, extreme weather conditions and global financial crises.

Policy implications

Countries at all stages of development need to adapt to the demographic transition: to have policies in place to ensure that the needs of older people are met, that their human rights are respected, and that they are enabled to live fulfilling lives and participate in society.

Staying healthy at older ages depends on the conditions experienced across the life course as well as present living conditions, and access to good quality health care and preventive services. Reviews of the social determinants of health advocate coherent, integrated action across the life course to prevent the accumulation of disadvantage that leads to inequalities in healthy ageing (CSDH, 2008; Marmot Review Team, 2010; IHE, 2013).

It is a matter of human rights and social justice that all countries develop policies that support current and future cohorts of older people. It is also a matter of universal enlightened self-interest – everyone is ageing and many of us hope to reach older ages and enjoy good health. The cost in human lives of doing nothing to reduce health inequities is enormous – in the UK, 2.6 million years of life are potentially lost to health inequities (Marmot Review Team, 2010). The economic costs of health inequities are potentially large, but depend on the country context. It has been estimated that in the UK illnesses associated with health inequities account for productivity losses of £31 billion to £33 billion per year, lost taxes and higher welfare payments in the range of £20 billion to £32 billion per year, and additional National Health Service costs well in excess of £5.5 billion per year (ibid).

As governments around the world consider what universal health coverage means in their own national contexts, the health and well-being of present and future generations of their older citizens must be integral to their plans. Financial barriers to access to health care for older people need to be addressed. Early preventive action to delay the onset of mental and physical disabilities associated with ageing should be a planning priority in order to enable older people to live healthy, active and independent lives for longer.

Endnotes

- 1 World Bank, 2015. See http://data.worldbank.org/about/country-and-lending-groups#OECD_members [Accessed 1 April 2015].

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The right to health: From legal principle to post-2015 indicators

Devi Sridhar and Go4Health co-researchers

Universal health coverage (UHC) is widely considered to be a key component for the post-2015 health goal. In this article, we complement the World Health Organisation (WHO)/World Bank approach by grounding UHC in the right to health framework, which is a valuable starting point to develop measurable and achievable indicators of both process and outcome that can inform the ongoing post-2015 global negotiations and implementation, as well as national debates on how to integrate UHC into domestic policies. Based on the International Covenant (ICESCR) and the General Comment of the Committee on Economic, Social and Cultural Rights, which has the responsibility for interpreting and monitoring the ICESCR, we have identified six key legal principles that should underpin UHC based on the right to health: minimum core obligation, progressive realisation, cost-effectiveness, shared responsibility, non-discrimination and equality, participatory decision-making and prioritising vulnerable or marginalised groups.

Yet, while these principles are widely accepted, they are criticised for not being specific enough to operate as post-2015 indicators for reaching the target of UHC. In this article we propose measurable and achievable indicators for UHC based on the right to health that can be used to inform the ongoing negotiations on Sustainable Development Goals. However, we have identified three major challenges that face any exercise setting indicators post-2015: data availability as an essential criterion, the universality of targets and the adaptation of global goals to local populations.

Six principles derived from the right to health

Our indicators of UHC are based on six principles pertaining to the right to health, as specified in General Comment 14 of the Committee on Economic, Social and Cultural Rights, which is tasked with monitoring compliance with the International Covenant on Economic, Social and Cultural Rights (UN CESCR, 2000). This approach means that we can draw on a body of jurisprudence and authoritative interpretation of international human rights law that identifies the rights of individuals and the obligations of those who should secure their rights.

The first principle is that all states, no matter how poor, should offer a minimum core level of provision that should include 'at least the following obligations: (a) to ensure the right of access to health

facilities, goods and services on a non-discriminatory basis, especially for vulnerable or marginalised groups; ... (d) to provide essential drugs, as from time to time defined under the WHO Action Programme on Essential Drugs; (e) to ensure equitable distribution of all health facilities, goods and services; (f) to adopt and implement a national public health strategy and plan of action, on the basis of epidemiological evidence, addressing the health concerns of the whole population' (ibid: pp. 15–16).

The second principle is progressive realisation of the right to health. This requires countries to move forward towards the right to health and, by implication, not to adopt measures that are regressive. In addition, each state should make progress 'to the maximum of its available resources' (ibid: p. 17). This implies an explicit comparison of what is being provided and what resources are available. If states claim they cannot provide health care to a level seen elsewhere, they are obliged to demonstrate why. And if states are able to move beyond their core obligations, they have a legal obligation to do so: core obligations constitute a universal floor, not a ceiling.

The third principle is that interventions should be cost-effective to maximise the benefit from available resources, derived from non-discrimination. 'Expensive curative health services, which are often accessible only to a small, privileged fraction of the population, rather than primary and preventive health care benefiting a far larger part of the population', have been qualified as '[i]nappropriate health resource allocation [that] can lead to discrimination that may not be overt' by the Committee on Economic, Social and Cultural Rights (ibid: pp. 7–8).

The fourth principle is that of shared responsibility among states. Article 2(1) of the ICESCR prescribes that states 'take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of [their] available resources' and, when the committee elaborated states' core obligations arising from the right to health, it explicitly referred to international assistance: 'For the avoidance of any doubt, the Committee wishes to emphasise that it is particularly incumbent on States, parties and other actors in a position to assist, to provide "international assistance and co-operation, especially economic and technical", which enable developing countries to fulfil their core and other obligations' (ibid: p. 16). Thus, there is an obligation on rich states to prioritise health care in their international assistance programmes.

The fifth principle is the imperative for participatory decision-making, the second derived from non-discrimination. National public health

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From an article for the International Journal of Health Services (forthcoming May 2015). Adapted by kind permission. This analysis was undertaken as part of Go4Health, a research project funded by the European Union's Seventh Framework Program, grant HEALTH-F1-2012-305240, and by the Australian government's NH&MRC-European Union Collaborative Research Grants, grant 1055138. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.



The needs of vulnerable and marginalised people must be addressed without discrimination

strategies and plans of action that states are required to adopt and implement 'shall be devised, and periodically reviewed, on the basis of a participatory and transparent process', according to the committee (ibid: p. 16). Thus, 'the health concerns of the whole population' should not simply be assessed from epidemiological data but should incorporate people's expressed priorities.

The sixth is that the needs of vulnerable or marginalised groups should be addressed explicitly, the last derived from non-discrimination. This stems from the statement by the committee that 'the process by which the strategy and plan of action are devised, as well as their content, shall give particular attention to all vulnerable or marginalised groups' (ibid: p. 16). Participation in the process of developing and monitoring national plans must specifically include marginalised populations in a meaningful way. Where particular health concerns disproportionately affect vulnerable or marginalised populations, it may be incumbent on the state to include interventions within its benefit package, even where the interventions needed are not considered cost-effective overall.

UHC indicators rooted in the right to health

The European Commission has set out criteria for any proposed post-2015 goals. They should be measurable, achievable and sustainable, and should consider the constraints of developing countries for improving health outcomes themselves (Go4Health,

2013). Bill Gates has also argued that the goals should be measurable, demonstrating tangible change in health status, but also operational, focused on extreme poverty and based in global consensus.¹ There is a consensus on the right to health, as shown by the accession of all countries except South Sudan joining at least one treaty recognising it (Gostin and Sridhar, 2014). We now propose ten indicators that capture the achievement of the principles that flow from the right to health but that can also be operationalised to generate measureable, achievable, sustainable indicators.

The first is the existence of a legal mandate for UHC in each country. This may take different forms, depending on the country's legal system, but its presence is easily determined. Thus, it may be incorporated in the constitution (as in South Africa), it may be established in national legislation, or it may exist because the country is one where the ratification of an international convention has direct effect in domestic law. These different instruments could be recorded in a proposed global health law repository (Attaran et al., 2012). The existence of a legal basis is an important requirement for UHC with empirical evidence illustrating that countries with such a mandate spend more on public health services (Stuckler et al., 2010).

The next three are the extent of coverage measured on three dimensions of depth (which services are covered), breadth (who is covered) and height (what proportion of the costs are covered). The challenge then becomes how to operationalise these three

dimensions. Currently available data on coverage of specific services refers largely to maternal and child health, such as antenatal care, delivery care and immunisation. This provides a starting point, but needs to be extended to other key areas of health care, such as non-communicable diseases, so as to include the main contributors to the burden of disease in a particular country. Breadth is arguably the simplest to measure, for example by asking in household surveys whether respondents consider that they are included in some insurance scheme or equivalent (although with the caveat that those least likely to be covered are least likely to be included in surveys, such as illegal migrants). This should also take account of equity, for example by capturing differences in coverage by wealth, gender or income quintile. This should also consider other markers of marginalisation, such as having a disability or being a member of an indigenous population. Height is also relatively straightforward and can be measured as a reduction in the share of out-of-pocket payments for health care below a fixed percentage, using data from the World Bank's living standards measurement surveys and similar household surveys.

The fifth indicator is the commitment of adequate resources to deliver UHC. There is emerging evidence showing that the ability to deliver UHC is associated with the ability to raise direct taxation

(paper submitted). Accordingly, we propose the achievement of a fixed percentage of gross national product on health care, and not as in the Abuja Declaration², a percentage of government spending. We have considered, but rejected, the idea that the percentage should vary, from a low figure in the poorest countries to a higher one in the richest, as this would accentuate inequalities.

The sixth indicator relates to cost-effectiveness. Policy-makers at national and sub-national levels have limited resources and must choose among many interventions that target different diseases and vulnerable populations (Chopra et al., 2012). A possible indicator could be the use of expensive branded drugs when cheaper alternatives are available or the ratio of complex to basic items of equipment. However, cost-effectiveness of mortality reduction for the entire population does not necessarily mean that it will also be 'equitable', as these are two separate dimensions. Deaths can be reduced in a highly cost-effective way when investments are targeting the wealthiest quintiles, just as when they are targeting the poorest. An appropriate indicator might be the number of deaths or disability-adjusted life years (DALYs) averted per cost of intervention scale-up in the poorest quintile of the population.

Figure 1 Ten indicators for UHC based on the right to health

Indicator	Underlying legal principle	Data source
The existence of a legal mandate for UHC in the country	Minimum core obligation/progressive realisation	Global health law repository
The extent of coverage in terms of depth (which services are covered)	Minimum core obligation/progressive realisation	Household survey data
The extent of coverage in terms of breadth (who is insured) with attention to equity	Minimum core obligation/progressive realisation	Household survey data
The extent of coverage in terms of height (what proportion of costs are covered) with focus on reduction in share of out-of-pocket payments for health care	Minimum core obligation/progressive realisation	World Bank's living standards measurement surveys/household survey data
The commitment of adequate resources to deliver UHC with focus on percentage of gross national product on health care	Minimum core obligation/progressive realisation	World Bank statistics
Cost-effectiveness with attention to equity	Cost-effectiveness/non-discrimination	Data on use of branded/generic drugs or high-tech/basic equipment
International assistance as a percentage of GDP	Shared responsibility	OECD-DAC database
Existence of an international development policy explicitly including specific provisions to promote and protect the right to health	Shared responsibility	
SARA on participatory decision-making	Participatory decision-making/non-discrimination	Extended SARA
SARA on prioritisation of marginalised groups	Attention to vulnerable and marginalised groups/non-discrimination	Extended SARA

The next two indicators relate to financial and non-financial dimensions of shared responsibility. The first is international assistance as a percentage of GDP, using the widely accepted target of 0.7 per cent of GDP. The second is the existence of an international development policy explicitly including specific provisions to promote and protect the right to health.

We have finally considered the challenging issue of developing indicators for participatory decision-making, non-discrimination and prioritisation of marginalised groups. Rifkin, for example, notes that trying to capture these dimensions by indicators approved at the UN level may be meaningless or even counterproductive (Draper et al., 2010). Her main argument is that as soon as indicators are accepted, we are likely to see some tokenistic application of principles, which is likely to distract from the real issue, which is political willingness. The most feasible proposal is by O'Neill et al. (2013): to conduct 'service availability and readiness' assessments (SARA) as a baseline for UHC and to be updated regularly as a way of monitoring progress. These underpin the ninth indicator, on participatory decision-making, and the tenth, on non-discrimination and the prioritisation of marginalised groups, adapted to the reality of each country.

Challenges in indicator development

Three major challenges face any exercise to set indicators post-2015: data availability, the universality of targets and the adaptation of global goals to local populations.

Few developing countries have adequate data and there is growing recognition of the need for serious investment in data and sustainable information systems. These challenges should not be underestimated; they question the extent to which progress made towards transformative goals can be measured. Measurability will

inevitably influence which targets and goals can be considered, thus potentially limiting the ambitious and transformative nature of the goals.

Second, universal goals may not capture the priorities of all countries. Spending time and money collecting data for indicators that are not relevant in specific contexts could lead to a neglect of problems associated with specific marginalised groups. In addition, developed countries have resisted universal goals given the political implications they have for their own domestic policies, in contrast to the MDGs, which were applied to low- and middle-income countries.

Third, while some indicators might be universally relevant, such as maternal and child mortality, or life expectancy, others, such as mortality from malaria, are highly contingent. The choice of indicators may, therefore, directly affect people's health, meaning that peoples have the right to participate in deciding what the indicators are. While this should include decisions at the UN level, as a practical and normative matter, to enable the most meaningful participation, it should also occur nationally (or even locally). Further, if the participation is to be meaningful nationally (or locally), then the results of the participation must have the possibility of having an impact, in this case, on affecting the nature of the indicator.

In this article we have explicitly avoided setting specific targets to be achieved in terms of the individual indicators. Instead, we noted the principles that underpin any target-setting exercise. Targets should be specific, measurable, accurate, realistic and time bound. The process of determining targets will inevitably involve political considerations, but it is also important that it is informed by technical ones. In some cases, the process is straightforward. Thus, we note that the target for the percentage of GDP spent on health proposed by the Sustainable Development Solutions Network is five per cent³. However, we also recognise that in the poorest countries this sum will be inadequate to provide UHC and will need to be supplemented by additional funds from development assistance. Crucially, we emphasise that whatever figure is chosen should be a minimum, not a maximum. A mid-term target might reasonably be to halve the gap between the existing level of expenditure and the target. In other areas there is a need for modeling to determine feasible but challenging targets based on the starting conditions, effectiveness of policies to achieve the targets and the time lags that apply.

Despite these challenges, for UHC to continue to gain momentum in the mainstream post-2015 agenda, attention must be given to the development of indicators that are universally accepted, implementable and based on an agreed legal framework. It is only through law and the right to health that individuals and populations can claim entitlements to health services, and that corresponding governmental obligations can be established and enforced (Gostin, 2014). A crucial next step is to build on the WHO/World Bank report and make UHC, as an expression of health rights, susceptible to measurement.

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Universal health coverage

On 12 December 2012 UHC received unequivocal endorsement from the UN General Assembly (including the USA) with the approval of a resolution on UHC that confirmed the 'intrinsic role of health in achieving international sustainable development goals'.¹

Yet, despite UHC's growing prominence in the post-2015 agenda, there is no single agreed definition of what it is and there is ongoing discussion about what indicators might measure progress towards it (O'Connell et al., 2013). While the 2005 World Health Assembly's definition of its achievement as 'access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access' (WHO, 2005) captures key elements and the World Health Report 2010 identified the three dimensions of who, what and which proportion of the costs are covered (WHO, 2010), neither are easily operationalised for routine use. A notable exception is the 2014 WHO/World Bank report, which attempts to fill this gap by discussing possible targets and indicators from the three dimensions related to service delivery and financial protection (WHO/WB, 2014).

Endnotes

- i UN General Assembly, 2012. Adopting consensus text, the General Assembly encourages member states to plan and pursue the transition of national health care systems towards universal coverage. See www.un.org/News/Press/docs/2012/ga11326.doc.htm.
- 1 See Bill and Melinda Gates Foundation annual letter 2013: www.gatesfoundation.org/Who-We-Are/Resources-and-Media/Annual-Letters-List/Annual-Letter-2013.
- 2 See www.un.org/ga/aids/pdf/abuja_declaration.pdf.
- 3 See <http://unsdsn.org/resources/publications/health-in-the-framework-of-sustainable-development/>.

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Palliative care: Planning for an ageing world

Liz Grant

A commitment to investing in those who are at their most vulnerable, those entering into life and those leaving life, is indicative of how nations value their people. It is a recognition that humanity is in and of itself valuable, not because of the potential of human beings to create wealth, or to contribute to knowledge or material production, but simply because of the intrinsic nature of human beings living relationally and in relationships within family, community and society.

To honour the promise and the vision of universal health coverage (UHC), care systems need to be in place for everyone regardless of gender, race, citizenship, wealth, physical or mental ability, and also age. The concern of UHC for adequate geographical spread must be accompanied by a concern for adequate lifespan spread and this means ensuring appropriate, accessible and available coverage for those coming towards the end of their lives. Palliative care, therefore, is an essential but unrecognised component of UHC.

As an integrated approach to care taken by all practitioners and health care providers regardless of clinical specialty or seniority, with appropriate resources including a skilled workforce and analgesia, palliative care is far broader than the care given in the last few weeks or days of life. Optimal palliative care starts early, as illnesses transition from curable to chronic deteriorating illnesses. It seeks to understand and reduce total pain; it is responsive to the cyclical nature of most illnesses, which rarely develop in straight lines of decline but in peaks and troughs of wellness and illness. It is proactive in interpreting care needs and reactive in responding appropriately, and it is hopeful: recognising that hope is not the promise of immortality, but the assurance of support. Such care is rarely seen in any health system and is frequently absent both in fragile systems, where efforts are focused on fire fighting disease with limited human and physical resources, and in highly technical health systems, where efforts are placed on aggressive treatment regimens to prevent death.

Why is palliative care so important for the ageing?

Those who are ageing have more complex health needs, more multi-morbidity and more treatment needs, and therefore have particular palliative care needs. The care they need is multi-dimensional, not silo-disease focused but patient centred, as few will die of only one illness as captured in Figure 1. Yet the focus of palliative care in the countries where it is available has traditionally been directed towards a single disease, namely cancer.

Studies documenting the palliative care trajectories of those living with cancer, heart failure and liver failure show patterns of triggers that can provide indications of when to increase service provision. The physical trajectory of decline is mirrored by psychological and

social trajectories of increased anxiety and fearfulness for the future. Hospital admissions following exacerbations of symptoms provide clear markers, with the sense of exhaustion and frustration often coming days after discharge, when the bustle of activity has dissipated and the patient is left coping, recognising that their illness has peaked and then settled, leaving them a little less well and with a little lower functionality than they had before.

For many older people, a complex collation of illnesses muddies the traditional trajectories and calls for much more sensitivity and awareness of change. For the frail elderly, who don't have exacerbations of illness yet are cognisant of a gradual decline in functionality, identifying their need for palliative care and the delivery of such care is much more difficult. Three sets of narratives among the frail elderly who required palliative care have been identified (WHO, 2014): the stable narrative, where the elderly person is able to hold onto their sense of self in the face of impending death; the regressive narrative, where there is a loosening grip on the self; and the tragic narrative, where the self is lost. An important feature of good comprehensive palliative care is its ability to strengthen the individual's sense of identity and value, thus allowing those coming towards the end of their life to remain constant to themselves rather than feel that they are losing their self to a disease or a stage. 'Clear physical illness offers explanation and legitimisation of the physical and social position but also fosters a bridge between the old and new self. One can be "me with cancer", "me with arthritis", "me with kidney failure", yet the degenerating body of old age and frailty becomes "me" – but with what?' (Lloyd, 2015).

With the passing of the resolution on palliative care at the 67th World Health Assembly in 2014, the advocacy for appropriate palliative care for all is now firmly on the global health agenda. The resolution called on member states 'to develop, strengthen and implement palliative care policies'; to 'support palliative care initiatives including education and training, quality improvement and availability of medicines essential for the provision of palliative care' to 'ensure access to essential medications'; and to 'foster partnerships between government and civil society to increase access', in order to develop and implement services that reach all (ibid).

Data emerging on the palliative care needs of older populations as part of a larger programmatic investment in palliative care integration into health systems in four countries – Kenya, Rwanda, Zambia and Uganda¹ – has identified four key issues that palliative care needs to address:

Suffering. Older patients experience particular physical, emotional and spiritual pain. Analgesia for physical pain is largely missing from the limited battery of drugs available in many low-income

countries and few investments have been made in therapeutic interventions to understand, interpret and intervene in the non-physical pain that is experienced as older patients approach death. Fear and uncertainty among practitioners about the correct dosage of analgesia, fear of addiction to drugs, and anxiety that drugs will work in different and more powerful and dangerous ways in an older population means that patients are refused effective pain relief. Religious beliefs that patients should have a clear mind, uncontaminated by drugs, as they die or that bearing pain patiently is redemptive have shaped pain management among older patients.

Fearfulness. Fear stemming from uncertainty about what is happening. Few older people are given clear information about what is happening to them despite the inevitability of death and their awareness of its approach. Cutting off this vital information exchange leaves patients feeling burdensome and a failure to their families; creates uncertainty about whether to accept or reject treatments; and generates anxiety about the right time to prepare to say goodbye, to give their blessing to those they leave behind, to make amends and draw to a close the things that matter.

Poverty. Dying is costly and unacknowledged dying even costlier. Cultural norms and community expectations that one will care for family are often significantly stronger in low-income countries than in high-income countries, though this is also changing with the shift in globalised living. Many patients and their families become poorer because of the cost of illness and the expectations of the patient, family, community and health provider that demand constant seeking and paying for cures. In a study carried out in

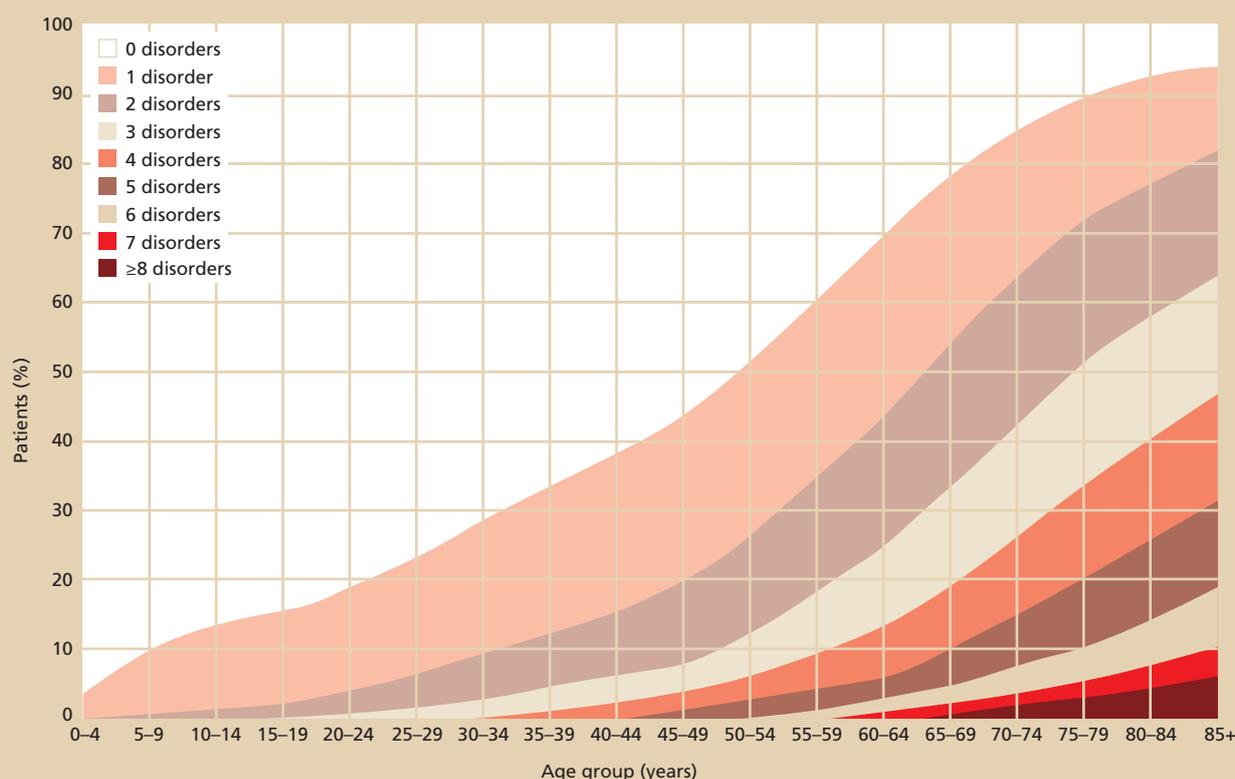
East Africa, families in Kenya, Uganda and Malawi, when asked about their care patterns, explained that they no longer had any money in the household because they had been forever seeking cures and never finding them. Lack of conversations with health providers about the likelihood of illness leading to death meant that families felt they had to show that they had done all they could to keep the person alive; for many what was important was the visibility of effort.

Neglect. The opposite of families seeking curative treatments even though death was inevitable was the failure to look for any care at all. The undocumented global burden of the neglect of the ageing, as social networks, kinship groupings and extended family systems become more disparate, is particularly acute when elderly people require palliative care. Older people suffering from dementia are the least likely to receive palliative care in high-income countries, and a range of reports on dementia care have identified that too often people are receiving undignified treatment and are dying in pain (Gott and Ingleton, 2011). Identification of older people who would benefit from palliative care is challenging in low-income settings, where cost sharing and out-of-pocket expenditure for health determine family priorities in seeking care.

Rebuilding the palliative care service

To build an integrated and comprehensive palliative care service that is responsive to the needs of the elderly requires a seamless and managed system with an emphasis on enhanced communication, and more determined case finding. Integration is the buzzword for all health systems, but Gott and Ingleton (2011),

Figure 1 Number of chronic disorders by age group



Source: Barnett et al., 2012

when describing the dearth of palliative care services for the elderly, note that disintegrated services, practice and policy seem to dominate as older people do not fit neatly into traditional palliative care frameworks. Palliative care for the elderly also requires volunteers and non-government organisations, such as home-based care teams or third-sector providers. It must be recognised that, while some older people may be living with or supported by family networks, there are many older people who do not have such relational supports and are living instead in isolation. Research from Australia shows that elderly people who did not access community care services died six years earlier on average than those who did (AIHW, 2015).

Services to deliver palliative care need to sit within a national health framework. Without policies, it is difficult to establish and maintain palliative care services that are fully integrated in a way that ensures older people entering the service through an acute exacerbation of illness, for example, or following a fall can be rapidly identified and treated as a matter of course, rather than as exceptions. Policies should support the distribution of resources, education, staff and services within the health budget; recognise and register patient preferences and decision-making about end-of-life care; govern and legislate for appropriate pain control through opioid management without restrictions of use for vulnerable or elderly patients; facilitate the palliative curriculum in national health-worker training for all medical, nursing and pharmacy trainees; and establish and support a legal framework for the protection of the widow/er (IOM, 2014).

Conclusion

There are many lessons to be gleaned from the ways in which older people speak about death. A Kenyan elder, nearing the end of his own life, captured the communal view when he explained, 'death belongs to us, death is a path we all must tread' (Murray et al., 2003). And yet, in contrast to such insights, health workers often fear that the introduction of these conversations will be interpreted by patients or their families as a marker of the end of care, and a sign of medical failure. And the closer an older person gets to death, those conversations may be inhibited further by the impending sense of loss, grief, fear of the unknown and by religious or superstitious beliefs on the part of carers. In many cultures, the time of death is seen to be in the hands of the divine. An old farmer in the Meru district of Kenya talking about death explained that the god of the mountain would make this call.

But, from the point of view of UHC commitments, investing in palliative care for older people can inform the way that death and dying are constructed and configured. Older people, supported by good palliative care, can demonstrate that preparing to live with death in mind doesn't diminish life but rather *optimises* it. Death is the natural conclusion to life. Care to live (and leave) life well is a basic human right.

Endnotes

- 1 See <http://thetblogging.blogspot.co.uk/2013/02/strengthening-palliative-care-in-5.html> [Accessed 7 April 2015].

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Challenges of ageing and good health: Views from Malaysia

Shila Kaur

Ask an older person in Malaysia whether she/he would prefer to stay in an aged care facility/residential community/‘old folks’ home’ or at home with family, the answer almost certainly will be: at home. The situation is generally no different throughout Asia. In most Asian countries, co-residing with an older relatives and providing aged care is part of the cultural tradition. The challenge for policy-makers is to find a balance between maintaining this tradition and grappling with rapidly changing social values – brought about by urbanisation, changing patterns of families into nuclear types, higher education, the changing role of women from caregivers to wage earners, better employment prospects, higher incomes and upward mobility – that increasingly gravitate towards expensive formal aged care programmes and facilities.

In Malaysia, where state-provided protection for older people is lacking, the risk of crashing into poverty at the end of the stipulated working life is very real for a number of reasons. For a start, people live longer – life expectancy is 71.7 and 76.5 years for men and women, respectively – and require higher levels of medical care. Due to rapidly changing social conditions, extended family structures and traditional community supports are breaking

down, leaving more old people to fend for themselves. By the year 2020, about ten per cent of the population will be over 60 years of age. There is an urgent need to look at policy frameworks that cater to the needs of older people.

Various frameworks for ageing exist throughout the world, covering aspects such as longevity, physical health, activities of daily living, autonomy, psychological well-being, social relationships, work participation, financial security, housing, transport, safety, leisure activities, quality of life, age discrimination and attitudes. Current policies in almost all Asian countries, where they exist, focus on older persons remaining integrated in society. Singapore, which, according to World Bank data, has the highest proportion of older residents and the fastest ageing population in South-East Asia, is using a redistributive tax model, wherein the rich pay more through wealth and asset taxes to fund health care and elder care services.

Malaysia has had a number of national policies for older people, the first of which was the National Social Welfare Policy (1990). This policy focused on families and communities as principal



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Most older people in Malaysia would prefer to be looked after by family members than live in a residential community

Love on Wheels

Malaysia urgently needs nursing homes with varying levels of care as well as improved facilities for the disabled and mobile services for older people. The first effort to provide mobile services to old people above 60 years of age was initiated by a private company, Love on Wheels Healthcare Services (LOWHS), in 2013. Through its KASIH (Kasih Atas Sumbangan Ikhlas dan Hemat) project, the elderly are able to recover in the comfort of their own homes, while also being able to access nursing and rehabilitation services. LOWHS expects to roll out its services to major cities in Malaysia over the next few years.

caregivers. This policy later evolved into the National Policy for the Elderly (1995), which aimed to 'create a society of elderly people who are contented and possess a high sense of self worth and dignity, by optimising their self potential and ensuring they enjoy every opportunity as well as care and protection from members of their family, society and nation'.

However, in view of increased societal pressures and changing cultural norms and values, it is time for Malaysia to revisit its policies and prepare to meet the demand for quality comprehensive aged care services. According to the Ministry of Health, Malaysia, the Aged Healthcare Act, which was expected to be tabled at the end of 2014, will serve as a guideline for the provision of services and facilities for the aged care industry. To date, there has been no public announcement on the status of this act.

Within the Asia-Pacific region, Australia provides a good policy model. Australia's ageing policy focuses on consolidating and taking forward reforms to guarantee choice and access to quality aged care services, while relying on the role of informal support from the community. There are indications, however, that this is changing towards person-centred approaches that promote independence.

What is becoming increasingly clear is that, when designing country-specific policies and programmes for older populations, policy-makers must use a comprehensive public health approach that considers the health status, participation and levels of independence among older people of the same age; an approach that is needs-based as opposed to one-size-fits-all, where the functional capabilities and aspirations of older people are the main considerations. Admittedly, such an approach is complex and challenging, and for developing countries with limited resources, the challenges are multiplied further. Health systems could therefore be redesigned to provide aged care services that enable older people to stay at home and 'age in place'. If these services can be seamlessly linked with social and long-term care, then the aged will be assured of continuity of services from community to the institution.

Health issues of the aged in Malaysia

Like many other countries in the Asia-Pacific region, the major causes of death and disability in the ageing population in Malaysia are non-communicable diseases (NCDs). Older people are commonly affected by multiple chronic NCDs, such as

hypertension, type two diabetes, coronary heart disease, stroke and dementia. Visual impairment and blindness is high in this age group, making it imperative that ophthalmic and optometric services are part of comprehensive health care for the aged. There is also an increasing pattern of orthopaedic diseases in this population and functional impairment is common. According to the Third National Health and Morbidity Survey 2006 report, the greatest impact of reduced functional independence in the elderly is on mobility, self care, housework and access to public places. A high prevalence of chronic pain that interfered with daily activities was also reported.

Psychological health problems are also prevalent among older people in Malaysia. Depression often co-exists with other chronic illnesses, and health care providers can play a key role in detection and management at the primary care level.

Viewpoint – Datuk Dr T. Devaraj

Developing countries face a bigger problem in caring for the aged compared to developed countries. Developed countries grew rich before becoming old, while we are growing old before becoming rich. Developing countries are only now benefiting from socio-economic and medical changes of the last 50 years. By the year 2030 we will have a population over 60 years of age exceeding those under five years of age. We have to prepare for this certainty.

What do old people want? Old people want their physical needs to be met and they want to be healthy until the end.

Take the example of Australia, where there is support for the aged patient after an episode of hospitalisation. Home visits are made by allied health care personnel. We do not have this continuity of care in Malaysia due to stretched human and financial resources in the public health sector.

But what must be made clear in everybody's mind is that aged care cannot be just the responsibility of the individual/family, or the state alone; both have roles to play. In Australia, independence is a cultural trait. The government says, 'Stand on your own feet until you need help'.

One of the challenges policy-makers must overcome is lumping all old people into one monolithic structure. Aged-care policy should be based on the functionality of the old person and not on chronological age. Health care must be seamless. We have in fact been doing this in the rural health service in Malaysia for many years through the maternity and child care services, where health care professionals visit the houses of patients. This can be easily extended to include others with health care needs including the aged, or in other words domiciliary care. But this will have to be done through a combined effort by a health care team and the community.

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Challenges of aged care in the Malaysian health care system

For many people in Malaysia, the first point of contact in the public health care sector is the primary health care provider. The primary health care system, both public and private, focuses on the care of acute, episodic illnesses. This means that older patients only seek treatment when symptoms develop, while complex and multiple chronic conditions of older people are sidelined. Preventive and other specialised programmes for older people in the community have only been implemented sporadically. The main impediment remains the shortage of a trained primary care workforce, such as trained family medicine specialists and allied health personnel. There is an urgent need for multidisciplinary primary care teams to manage long-term care and treat complex health problems in the aged community.

The main challenge for the provision of comprehensive, co-ordinated and continuous care for the aged with multiple chronic conditions and complex health care needs is a fragmented primary health care system. Malaysia does not as yet have a universal funding mechanism, which means that there is still inequitable access to health care for many segments of society. The public primary care sector is often over-burdened and highly subsidised, especially for vulnerable groups such as older patients. The costs of health care in the private sector for older patients with multiple and complex conditions are often prohibitive, and out-of-pocket payments can be debilitating. The current fee-for-service payment to private general practitioners by private health insurance companies and employers places limits on the type of health care services that are available. For segments of society such as the aged, who often require longer consultations and home visits, private health insurance schemes are virtually inaccessible. Often, comprehensive care packages such as these are not even covered by private health insurance.

Conclusion

In designing a more responsive health care system that takes into consideration the needs of the aged, useful lessons can be learned from the health care systems of other Commonwealth member countries. These include conducting annual health checks for older populations in primary care. There is also a need to set up community-based aged care assessment teams to assess the elderly

who may require special assistance, since many are homebound. Comprehensive service packages for preventive care, self-management support, chronic disease care and rehabilitative care for older people should be developed under Malaysia's proposed health care restructuring, funded by the national health financing scheme. As well as this, older patients and their families must also have access to adequate information and the skills to manage their health problems. Patient self-management has been shown to reduce severity of symptoms and is cost effective. Patients and families must therefore be empowered with skills to manage their health to enable them to work in partnership with their health care providers.

There are also advances in information and communications technology, medical diagnostics and interventions that are promising. Devices that can be worn on the body to continuously monitor physical activity may assist in assessing the functional capacities of the aged, and older people can access IT applications that measure physical health indicators, such as blood pressure, ECG, urine sugar and so on, remotely.

Data collection systems in most public hospitals in Malaysia are outdated and inefficient. Efficient clinical information systems that use electronic medical records would ensure long-term, co-ordinated care of older people in the community. In addition, integration of evidence-based guidelines into patient care will be fundamental to translating evidence into practice. There is also a need to develop a collaborative network with community resources.

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Planning for an ageing population: The WHO perspective

Shin Young-soo

The proportion of older people in the population is increasing in every country in the World Health Organization (WHO) Western Pacific region. Member states have made significant strides in preventing and managing ill health, and promoting healthy behaviours and access to better health services. Overall, population ageing speaks to the success of public health efforts in the region.

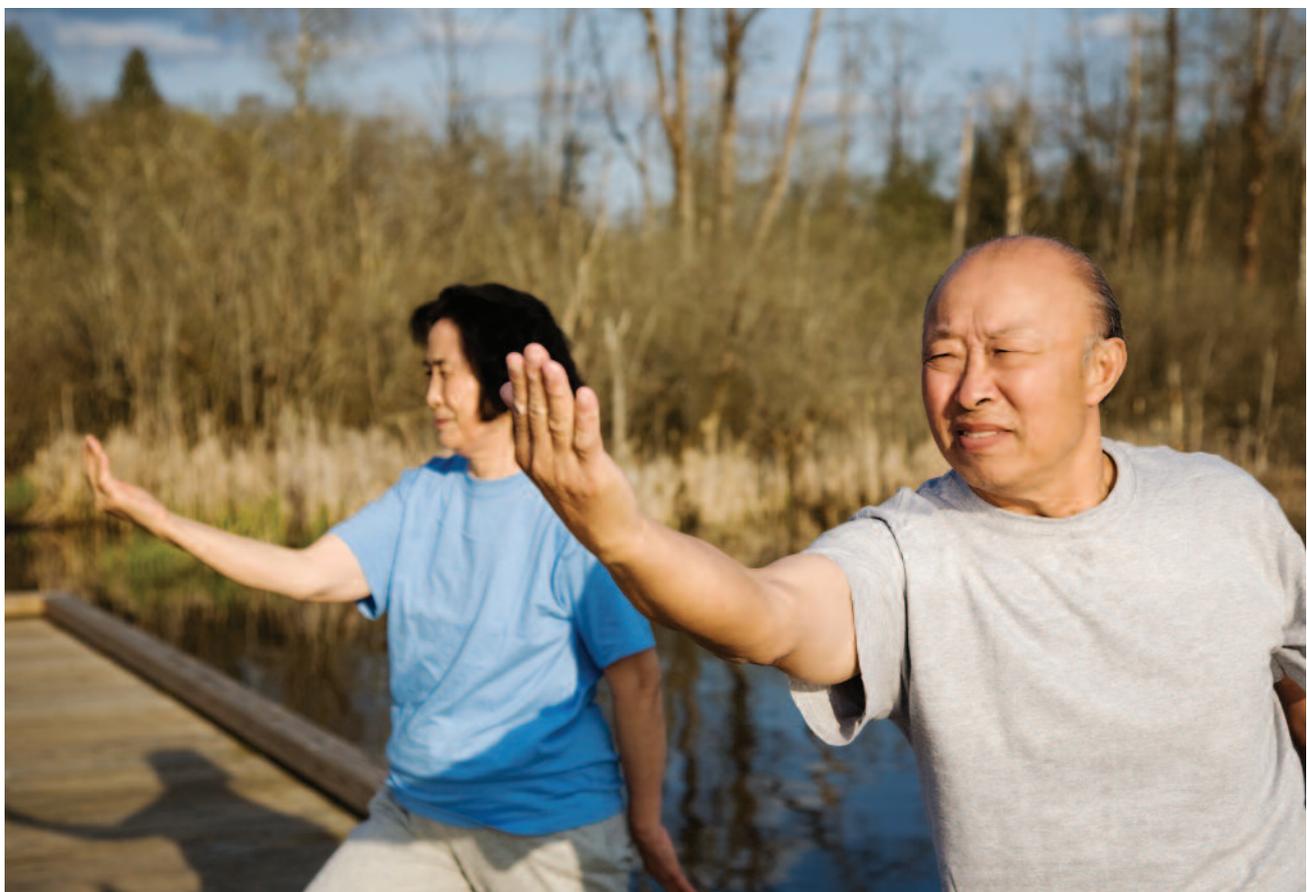
At the same time, population ageing poses complex challenges for social and health systems – and for society as a whole. The enormity of these challenges is sometimes reflected in the portrayal of population ageing through terms such as ‘tsunami’ – a disastrous phenomenon entailing huge costs for governments, communities and families. While this is not literally the case, older people do represent a steadily growing population group with specific needs that must be considered in health policy.

Governments must be prepared to deal with the rapid ageing of populations. They also need to recognise that this rapid

demographic change is happening alongside another massive shift in which non-communicable and chronic health conditions are dominating the burden of ill health in the Western Pacific region. As a result, countries must rethink how health services are designed and delivered in order to establish a continuum of care, from health promotion and disease prevention to treatment and rehabilitation.

Population ageing is both inevitable and predictable. In 2010 the region had more than 235 million people – more than 13 per cent of the population – of 60 years of age or older. This proportion will nearly double between 1995 and 2025.

The proportion of older people will grow even faster in developing countries, giving them less time to prepare and take action. For example, the number of people in Fiji aged 60 years and above is projected to nearly double in 20 years, from about 7.9 per cent in 2010 to 14.6 per cent in 2030.



Arek Malang / Shutterstock.com

Remaining fit and active can help older people prevent disease and can promote independence

Adaptable solutions

Older people are not a homogenous group. Interventions must therefore be adapted to their varying needs, functional trajectories and life circumstances. Lessons learnt in public health and human rights caution against a one-size-fits-all approach, and point to the importance of meeting the needs of all older people. These lessons are especially relevant in the context of universal health coverage (UHC).

Some countries in the region have been confronting the challenges of ageing and health for decades. Japan, for instance, is the most 'silver' country in the world. More than 20 years ago in Japan, the number of people aged 60 years and older surpassed the number of those younger than 14. Now countries like Japan and the Republic of Korea provide a wealth of experience that can guide other countries.

For its part, the WHO engages in technical collaboration, policy advocacy and dialogue with countries on the efforts needed to move towards UHC in the context of population ageing. The global momentum building around the goal of UHC provides a fresh platform for policy and action to meet the health needs of older people.

UHC means ensuring that all people – regardless of their age, sex, wealth or place of residence – have access to needed services of sufficient quality without experiencing financial hardship. In moving towards UHC, countries have the opportunity to take a whole-of-system approach to develop people-centred health services through both individual- and population-based interventions, and also to mobilise other sectors to take needed action on the social determinants of health and reduce health inequities.

Comprehensive national policies

The WHO urges countries to develop comprehensive national policies that respond to population ageing, with an emphasis on several essential areas of action.

First, we must build age-friendly environments through intersectoral action. Such environments support health and well-being, and empower older people to remain active and productive. For example, policies can ensure access to open and green spaces for physical activity or affordable and nutritious foods. While calls for intersectoral action in health are not new, ageing and health is an area in which collaboration with other sectors is critical.

For this reason, countries in the Western Pacific region, including Cambodia, the Lao People's Democratic Republic and Mongolia, have created institutional mechanisms on ageing with participation from different government ministries and partners. Such mechanisms can support and promote healthy ageing through action across sectors.

The broader agenda on ageing and health cannot be addressed by the health sector alone. Ministries of health have an important leadership function in fostering whole-of-government and whole-of-society approaches that promote health and well-being for people of all ages, including older adults.

The WHO-supported Global Network of Age-Friendly Cities and Communities brings together a steadily growing number of cities and communities that share a commitment to becoming more age-

friendly. In the Western Pacific region, 18 cities and communities in Australia, China, Japan and the Republic of Korea have now joined this network, helping to strengthen learning on how to meet the needs of older people.

Healthy Cities have also gained momentum in the Western Pacific region, with initiatives such as the Alliance for Healthy Cities. These cities are increasingly interested in and ready to incorporate age-friendliness within their ambit.

Second, action is also needed to promote healthy ageing across the life course to prevent diseases and maintain independence among older people. Older people comprise a large share of those with non-communicable diseases. Although these diseases remain the leading cause of disability, morbidity and mortality in the Western Pacific region, a significant share of them are preventable. The WHO advocates a life-course approach to healthy ageing, recognising that good health in older age depends largely on living conditions and exposure to risk factors earlier in life. Appropriate policies and programmes can enable people to exercise more, eat better and not take up or quit smoking, significantly lowering the risk of ill health.

At the same time, health promotion and disease prevention activities must fit the needs and circumstances of older people, enabling them to stay healthier longer. Specific attention is required to prevent or delay functional decline, including action on frailty and dementia. Improving older people's health literacy enables them to take better care of themselves and better adapt to changing capacities as they grow older. Community-based mechanisms, including older people's associations, hold promise as models for supporting and mobilising older people as well as strengthening their participation in society and policy-making.

The WHO Western Pacific region

The Western Pacific region comprises 37 countries and territories:

American Samoa	Nauru*
Australia*	New Caledonia
Brunei Darussalam*	New Zealand*
Cambodia	Niue
China	Northern Mariana Islands,
Cook Islands	Commonwealth of the
Fiji*	Palau
French Polynesia	Papua New Guinea*
Guam	Philippines
Hong Kong	Pitcairn Islands
Japan	Republic of Korea
Kiribati*	Samoa*
Lao People's Democratic Republic	Singapore*
Macao	Solomon Islands*
Malaysia*	Tokelau
Marshall Islands	Tonga*
Micronesia, Federated States of	Tuvalu*
Mongolia	Vanuatu*
	Vietnam
	Wallis and Futuna

* Commonwealth member countries

Third, countries must reorient their health systems to respond better to the needs of older people – a large and complex agenda. Many older people require health and social support services due to reduced mobility, increased frailty or other physical or mental health conditions. At present, health systems and services are largely oriented and resourced to treat acute episodes of ill health, whereas older people typically require services such as secondary prevention, screening and early diagnosis, as well as ongoing management of chronic health conditions, and cognitive and functional decline. The health needs of older people must be incorporated into national health plans and policies, including policy frameworks and strategies focusing on UHC.

The continuum of care

Integrated, people-centred models of service delivery are needed to ensure the continuum of care, from promotion and prevention to primary and specialist care, rehabilitation, palliation and end-of-life care. Effective care of older people will require teamwork and effective co-ordination between health and social care services; between families, communities, health facilities and social support agencies; between insurance and financing mechanisms; and, crucially, between general and specialised health professionals.

Population ageing is likely to increase the demand for health workers, both specialists in gerontology and geriatrics as well as generalists equipped with the skills and competencies to meet the needs of older people. Hospitals can become more age-friendly through changes to the physical environment, for example, in access to wards and other facilities, and through changes to service delivery that address the preferences of older people and enable their rehabilitation, participation and independence. Transitional care options, including step-down care, will be needed to facilitate older people's movement along the care continuum.

Increased demands for health services by older people will place a strain on health financing and social security systems. Like the system as a whole, financing mechanisms must be refocused and their coverage expanded to meet these health costs. Technology, including innovations in e-health and m-health, holds promise in potentially helping increase efficiency, while improving access among vulnerable groups of older people.

Lastly, to better guide action on ageing and health, the evidence base on ageing must be strengthened. Reliable information drives sound policy-making. More and better information is needed in many countries on issues such as the health status and needs of older people, their access to services, and the quality of the care they receive. Research and analysis on ageing should break down and analyse information by factors such as age, sex, income and rural or urban location in order to understand the health needs of everyone. Appropriate information must be available to policy-makers to facilitate evidence-informed policy dialogue and

decision-making. The WHO has undertaken policy-focused analysis to inform technical collaboration on ageing and health in countries of the Western Pacific region.

The way forward

Moving forward will require political commitment, advocacy and strengthened partnerships. Ageing and health is a complex and challenging field. There is no magic remedy, however, societies and governments have shown a growing awareness and willingness to take action.

Member states showed such interest when they endorsed the WHO *Regional framework for action on ageing and health in the Western Pacific (2014–19)*, which has provided a strong basis to catalyse action. The regional framework endorses the four broad areas of action described in this article, recognising the importance for older people of retaining their health and living in environments that promote their active participation. In this way, their experience, skills and wisdom will continue to be great resources in their communities. Partnerships for public policies will be essential, including through mechanisms that recognise the contributions of older people themselves.

The WHO is committed to using our convening power to bring together various partners on ageing and health, and work on strengthening the health systems response to ageing in the context of UHC.

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Against isolation in old age: Towards a new view of social protection and rights

Kimberley Brownlee

Humans are social beings. We need to live near and with other people in order to survive and flourish (Baumeister et al., 1995). We need to have close connections when we're very young, as we age and when we're incapacitated. We also need to have meaningful opportunities to have close connections when we're adults.

The evidence from psychology and neuroscience is that social isolation is highly detrimental to our health. Psychology studies indicate that chronic acute loneliness, understood as perceived social isolation, generates the same threat response as pain, thirst, hunger or fear. It is an anxiety-inducing experience that triggers physiological reactions known as the 'fight or flight' response. Neurological studies associate chronic loneliness with numerous health risks including obesity, disturbed sleep, increased vascular resistance, elevated blood pressure, diminished immunity, reduction in independent living, alcoholism, depression, suicidal behaviour, the progression of Alzheimer's disease and mortality in older adults (Harris et al., 2013; Ladd et al., 2013; Brownlee, 2013).

This empirical evidence is corroborated by anecdotal evidence from people who've endured extended periods of isolation, and who report that it is one of the worst forms of suffering they've experienced (Bauer, 2012; Gawande, 2009).

The health outcomes evidence is also complemented by philosophical traditions that value personal autonomy and relate it to family, community and national well-being. If we value personal autonomy, we must value the social connections that are indispensable to it. The reverse also holds: if we value collective life, we must value the preconditions for it in individual rights.

Social connection is a need that applies throughout the course of our lives, but in this article I focus particularly on older people, who are often at greater risk of social isolation.

From needs to rights

Debates about human rights often downplay the social needs that we have independently of our economic conditions. It is true that some of the rights frameworks relevant to the elderly, such as the UN Convention on the Rights of Persons with Disabilities (UNCPRD), make provisions for 'participation in social and cultural life', 'family life' and so forth, and that this vision is latent in other protections, such as those against physical immobility or inappropriate institutionalisation, as well as in the positive aim of achieving the 'highest attainable standard of health'. However, it remains the case that rights agreements and scholarly debates alike lack explicit reference to what is, perhaps, the most fundamental social human right: the human right against social deprivation (Brownlee, 2013). Here, social deprivation refers not to economic deprivation (poverty), but instead to genuine, interpersonal *social*

deprivation understood as a persisting lack of minimally adequate access to decent human contact. This right is not just a right against being coercively denied social contact in solitary confinement or isolated medical quarantine – it's also a right against being *incidentally* denied social contact when we're unable to seek social contact without help.

For healthy adults, the right against social deprivation secures only minimally adequate opportunities to access decent human contact. But, for people who are utterly dependent on others to meet their social needs, such as babies, young children (cf. Liao, 2006) and severely impaired people, including many elderly people, the right is richer; it secures positive access to decent human contact.

The human right against social deprivation isn't just a right to access the social contact we need, it's also a right to *contribute* socially. We have a deep interest in being able to offer our care and company to other people in ways they need and value. We wish to spend time with our families. We wish to have a social circle that respects us. We wish to share our knowledge, to give and receive trust, to know other people's stories and to share in their concerns. In general, we do not wish to contribute socially only indirectly by, for example, giving money to good social causes. Rather, we wish to contribute directly by being dependable and depended upon.

In order to participate in the world of social connections, we need some basic social resources, including: the *abilities* to offer and receive social connections; enough decent social *opportunities* to forge and sustain social connections; and actual social *connections* that our society neither severs nor overlooks. We also need some recognition that we're able, in principle, to contribute socially even when we're physically dependent or cognitively impaired.

If we are not taken seriously as social contributors and supported in our efforts to lead social lives, then we are victims of a distinctively social kind of wrong, which we can call *social contribution injustice*. I am proposing a technically new term here, but a range of rights instruments are concerned with participation by way of contribution, from the UN Convention on the Rights of the Child (to which all Commonwealth countries are signatories) to the broadest reaching 'rights to development'. When, for example, Commonwealth health ministers tackle mental health as a sector and range of target populations needing to move 'towards economic and social inclusion', this contribution angle, as well as receipt of medical services, is at issue. The longstanding Commonwealth commitment to women in political and business leadership responds to related insights; as well as a loss of social capital, gender inequality is an affront to women's rights both to consume and to contribute in an economy of goods and political ideas.

Social injustice

Social injustice not only wrongs its victims in the present moment, it also threatens their future prospects for social inclusion. A neglected person who is unable to form social ties without help not only lacks the chance to lead a social life right now, but also faces the risk that their social abilities will erode over time and render them less able to live socially. This denies them the chance to offer and receive reciprocal forms of social care, such as caring for those who raised them as they age, and caring for their own children and grandchildren. Concerns about these kinds of irreversible losses are reflected in UNCRPD provisions for early identification and medical intervention as well as for ‘services designed to minimise and prevent further disabilities, including among children and older persons’.

When our society lets people suffer chronic, unwanted loneliness, it shows that it does not take these people seriously as social contributors; it does not regard them as able to contribute socially in ways that the society should seek to access. If it did value them as social contributors, then political and social efforts would be made to ensure that other people could benefit from their social resources.

Elderly people are particularly vulnerable to social injustice since they face a high risk of experiencing periods of chronic, unwanted loneliness as well as the detrimental health effects that go with it.

Further, people are often prejudiced about the elderly, not taking them seriously as social contributors, especially when they require physical care or are unable to communicate effectively with language.

But, of course, the physical impairments that can prevent someone from accessing social settings without help do not invariably come with diminished cognitive and emotional ability. Moreover, even when physical, cognitive and emotional impairments go together, this need not eliminate a person’s social contribution potential. For instance, in allowing themselves to be cared for physically, an impaired person gives someone else a chance to show kindness, to cultivate empathy, to learn how to care and to be important to their well-being. These are substantial social contributions. To make them, a person needs some cognitive and emotional competence so that there can be mutual investment and a joint narrative between the person and physical caregiver, but the thresholds are often different from what we might imagine. An example of such social contribution might be elderly people allowing people with Asperger’s syndrome or autism to contribute to their physical care programme and thereby improve the carers’ skills in social relations.

Public policy

Public and private institutions can do a lot to meet or to deprive us of our social needs.

Consider, for example, home visits to elderly people by nurses and health visitors. These visits are often the first things to be cut when budgets are tight and, when budgets aren’t tight, these services are often given insufficient resources, particularly in the private sector due to excessive profit extraction and mark-ups on home health visits. Moreover, even when social connection services are adequately funded, they can often be provided in ways that are not conducive to meeting people’s social needs. For instance, when

a different person makes the home visit each week, the recipient of the visit has no continuity in their social interactions. They are forever starting over socially and share no collective memory, no joint narrative and no degree of mutual investment with the people who make these one-off visits. More generally, there is no acknowledgement here of the elderly person’s ability to offer reciprocal, interdependent social care to the visitors.¹

Some of the operational realities of institutional programmes are unavoidable due to personnel changes and policy changes, amongst other things. Therefore, it’s necessary that much of our meaningful social contact comes through personal or private connections. Here too, however, the state can do a lot either to meet our social needs or to deprive us of them since it can enhance or hinder us in our efforts as individuals to forge and sustain social connections with each other.

The state hinders us if it locates the local hospitals, prisons and retirement homes at a distance from the local community as well as when it routinely prioritises initiatives other than social connections. It hinders us if it disregards barriers to intimate association, such as long working hours, inadequate maternity and paternity leave, and inadequate childcare support. It hinders us if it makes public transportation difficult for the elderly to access, and if it requires people to pay out-of-pocket for services that, in theory, are covered under a free and universal system in the relevant respects.

By contrast, the state serves us as social beings when it guarantees an adequate level of basic social welfare, attends to the social dimensions of city planning and sets up appropriate venues for ambient sociability, such as playgrounds, parks and public squares, thereby forging interpersonal associations. Venues for ambient sociability also offer one way to further integration among different groups of people, where *integration* is understood as the full participation of socially significant groups on terms of equality in all domains of life (Anderson, 2010). Universal health care is an expression of these same things – integration, participation, equality, rights-based thinking. Other ways to further integration include spatial integration of neighbourhoods, housing and schools. Additionally, the state can facilitate independent but integrated living. Some European programmes now assist elderly people to set up independent, apartment-style living arrangements with five or six roommates, supported by cleaning and nursing services.

In these and other ways, our societies can remedy some of the wrongs of social injustice and give proper attention to our fundamental needs as creatures that must live in close proximity with other human beings in order to live well.

Endnote

1 For a discussion of interdependency and post-dependency, see Dartington, 2012.

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Growing old together: Policy and public health responses to ageing

John Beard and co-collaborators, *Lancet Series on Ageing* (2014)

Health in an ageing world: What do we know?

Richard Suzman, John Beard, Ties Boerma and Somnath Chatterji

Health systems need to find effective strategies to extend health care and to respond to the needs of older adults (aged 60 years and older). As the international momentum towards universal health coverage (UHC) increases, the specific needs of older adults, who often have many chronic health conditions, will have to be addressed by health systems. Health care for older adults that is effective, safe, efficient and responsive, without imposing an unbearable financial burden on individuals, will be central to achieving the goal of UHC. Furthermore, in the post-2015 development agenda, the goal of ensuring healthy lives and promoting well-being for everyone at all ages cannot be achieved without paying attention to the health of older adults. With an increasingly large proportion of this population living in low- and middle-income countries (LMICs), this will have implications worldwide.

Although most data comes from high-income countries and a few middle-income countries, the major progress in reducing deaths from avoidable causes in older adults in countries with scarce resources is a reason to be optimistic. With increased international commitment, sound policies and strengthening of health systems, marked gains in life expectancy in older adults could be feasible in all countries.

Because a substantial proportion of older adults will have poor health and be in need of long-term care, this will not only strain health systems but will also have economic implications. However, several responses are possible. These range from prevention of chronic disease through population-level public health responses to individual-level lifestyle changes. Effective treatment of chronic diseases to reduce disability; an extension of basic packages of cost-effective interventions to match the needs of older adults with appropriate technologies; a reduction of reliance on institutional care; training of appropriate human resources; and modification of policies so as to encourage older adults to remain part of the workforce for longer are all necessary.

Ageing populations are typified by marked heterogeneity in functioning. This heterogeneity might have resulted from the cumulative effect of health inequities during an older person's life course. This situation presents challenges to decision-makers, who

must avoid reinforcing these inequities while developing policy that responds to an enormous diversity of needs. These challenges are compounded by evidence gaps in many fields, and persistent approaches to care and research that view older people as generic vessels of single-organ diseases that are best managed independently. Unless health systems change the selective underuse of interventions that are known to be effective in older adults, the burden on health systems is set to reach unmanageable proportions. Primary care systems need to be age-friendly.

In LMICs, partly because the epidemiological and demographic transitions have been recent and more rapid, the knowledge base is thin. However, a burgeoning body of multidisciplinary international research from a range of LMICs supported by the US National Institute on Aging, such as the WHO Study on global AGEing and adult health (SAGE), has begun gradually to increase our understanding.

Towards a comprehensive public health response

John Beard and David E. Bloom

Several factors make development of a policy on ageing difficult. First, the changes that constitute and affect ageing are complex. These alterations only loosely correspond to chronological age, which changes at a steady rate, whereas the variations in functioning linked with ageing are neither smooth nor well defined. As a consequence, great inter-individual functional variability is a hallmark of older populations; thus, policies to meet the needs of older people should consider many different subpopulations. For example, although some older people might wish to continue to participate in social and occupational activities to a similar extent to younger people, less healthy individuals in the same age group might need substantial health and social care, and have little capacity for social engagement. Encompassing such diversity in a simple policy framework is difficult.

Second, this diversity is not random. Roughly 25 per cent of the heterogeneity in health and function in older age is genetically determined (Brooks-Wilson, 2013), with the remainder strongly affected by the cumulative effect of health behaviours and inequities across the life course (González-González et al., 2014). Thus, someone born into a poor family with limited access to education, or in a marginalised cultural group, is likely to have poor health in older age and earlier mortality. Recent findings suggest that there might even be an association between the ability to

The Lancet Series on Ageing (November 2014) highlighted a neglected area in the health sector and in social and economic-policy development. The six papers address issues related to mortality, morbidity and disability, well-being and potential health-system responses. Adapted by kind permission. For full references and further information see: www.thelancet.com/series/ageing [Accessed 1 April 2015].

build financial security in older age and decision-making that maintains healthy behaviours (Gubler and Pierce, 2014).

Policy-makers need to ensure that their interventions do not reinforce these inequities. For example, a common policy response to increasing life expectancy has been to raise the age at which pensions can be accessed. However, there are widespread barriers to employment at older ages, including negative attitudes of some employers and restricted access to training in new technologies. If these barriers are not addressed, increasing the pension eligibility age might remove a crucial financial safety net. Ensuring both economic sustainability and health equity will be a formidable challenge in the development of a public health response to population ageing.

A more comprehensive understanding of population ageing starts with research. Although life expectancy in older age is increasing in almost all countries, the quality of these additional years remains unclear. Are people are living longer and healthier lives or simply experiencing extended periods of morbidity?

Several major longitudinal studies now underway will help to fill these knowledge gaps. However, the methods of obtaining and interpreting information about ageing and health also need to be reconsidered; many established mechanisms for development and assessment of clinical interventions have not been adapted to population ageing. Despite being the most frequent users of many drugs (and facing drug interactions), older people are generally excluded from clinical trials – yet the evidence we extrapolate from younger populations may not be directly applicable to their physiologies.

Regardless of how effectively non-communicable diseases can be prevented or delayed, many older people will inevitably be affected.

At the same time, the importance of non-communicable diseases in older age should not obscure other health issues. Although our understanding of the burden of communicable disease in older age is poor, these disorders clearly remain an important cause of morbidity and mortality in older populations, particularly in LMICs.

Communicable diseases

Outdated perceptions of behaviour in older age could limit both disease surveillance and response. For example, older people, particularly those who are unmarried, might not be regarded as sexually active and are often excluded from HIV screening programmes or advice on safe sex practices. At the same time, individuals with HIV are living longer, increasing the likelihood that a sexually active older person will face exposure to HIV via a potential sexual partner. Older individuals with HIV infection also need specific clinical management. For services addressing the prevention and treatment of HIV and other infectious diseases to have maximum effect, they will need to adapt to changing demography.

Although vaccination can reduce the burden of infectious disease across the life course, immune function, particularly T-cell activity, declines with age. These changes mean that the capacity to respond to new infections and vaccinations decreases in later life (immunosenescence).

Social determinants

Population ageing is not taking place in isolation. Other broad social changes are transforming society and these are interacting with ageing to affect social and intergenerational dynamics. Understanding the interplay between these trends is crucial if policy-makers are to make the best decisions to promote the health and well-being of older people.

Foremost among these factors is the changing situation of older people in society. However, in many parts of the world, policy often seems to assume a division of the life course into a series of stages that is based on chronological age and social roles – typically student, working age and retirement – that have little physiological basis. This rigid framework prevents the flexible types of participation that older people are increasingly seeking and is exacerbated by ageist stereotypes of frailty and mental diminution. Effective health, social and economic policy needs to acknowledge the changing aspirations of older people rather than reinforce outdated stereotypes.

Provision of care and support by families to older people with substantial functional decline is becoming more difficult because of changing household structures. This challenge is exacerbated by the increasing proportion of older people compared with younger family members, and by internal and external migration of younger generations. This change in balance is even evident in Sub-Saharan Africa, where the HIV epidemic has removed potential support for nearly a million older people who would have been normally forthcoming from younger generations (see page 41).

Changing gender norms add a further layer of complexity to this debate. In most cultures, traditional carer roles are assigned to women. This role limits their capacity to engage in the formal workforce, which places them at greater risk of poverty, abuse and poor health in older age, while reducing their access to quality health care, social care services and pensions. The increasing participation of women in the workforce will help overcome this inequitable burden and will have great benefits for socioeconomic development, but it will also challenge traditional familial roles and restrict families' capacity to provide informal care at the same time that demand for it is growing.

Conclusion

An effective public health response to population ageing must take into account the diversity in the health, social and economic circumstances of older people; the disparities in the resources that

Technologies

Advances in information and communications technology, assistive devices, medical diagnostics and interventions offer much promise. For example, the advent of wearable devices that can continuously monitor physical activity may rapidly transform our understanding of functional trajectories and their determinants. However, if the benefits of technological advances are to be fully realised, designers must also better understand the changing needs and opportunities of older age. A greater focus on how these innovations might meet the specific needs of older people in LMICs is also needed.

are available to them; concurrent social trends; changing aspirations; and knowledge gaps. How can such a response be achieved? First, health needs to be viewed in a way that is relevant to all older people. In view of the likelihood of comorbidity and the centrality of geriatric syndromes in older age, a conceptual framework that focuses on functioning rather than disease would probably be most relevant. Public health policy for ageing could then be designed to maximise levels and trajectories of functioning in older age, and the ability of older people to do the things that are important to them regardless of their functional capacity.

To optimise trajectories of functioning, health systems could be redesigned to better provide co-ordinated and informed geriatric services that enable older people, as much as possible, to age in place (for example, at home or in the community). Ideally, these services would be linked with social and long-term care to provide a continuum of care from early detection through to treatment, rehabilitation, provision of assistive devices and palliative care.

Although few LMICs have established such a continuum of care, there is an opportunity for existing health services to be adapted to better meet the unique needs of older people. These adaptations might include basic geriatric training for all health staff, or practical steps such as reducing queuing time for frail older people. Diagonal approaches – an integration of vertical models that focus on a disease and horizontal models that focus on health care delivery systems – might also be considered to meet emerging needs (for example, control of hypertension) by building on existing services (such as chronic HIV care).

In all settings, greater attention will need to be given to building and supporting an appropriately trained workforce, including both formal and informal carers. Relying on international health worker migration is problematic since it can simply shift shortages from

more to less developed countries. Strategies to retain older health workers, and perhaps to recruit and train older people as new health workers, will therefore be important. For those entering the workforce, a greater emphasis on geriatrics in core medical training curricula, along with a rethinking of the culture of many clinical services that treat older people as generic vessels of single-organ disease, is essential.

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Older people's health in Sub-Saharan Africa

Little consideration has been given to issues of old age in Sub-Saharan Africa, which remains the world's poorest and youngest region. Development and health agendas for that region, including those being discussed in relation to targets to succeed the Millennium Development Goals, understandably centre on how to increase the capacity of and opportunities for the region's young people. Yet strong arguments exist for why the health of older people (aged 60 years and older) should not be overlooked. Not least is the substantial size of these populations – already double the number of older adults in northern Europe – which is expected to grow faster than anywhere else, increasing from 46 million in 2015 to 157 million by 2050 (Unicef, 2007). Furthermore, life expectancy at 60 years in Sub-Saharan Africa is 16 years for women and 14 years for men, suggesting that, for those who survive early life, a long old age is already a reality.

However, perhaps the most important reason to consider the older population in present plans for increased human and economic well-being in Sub-Saharan Africa is that, contrary to common assumptions, older Africans play roles that are crucial to achievement of this well-being. Within families, older people are often carers or guardians of younger kin. They directly shape younger generations' access to health, education and other capabilities, and thus their future human capital. The extent of older people's caregiving is increasingly recognised in the context of HIV/AIDS – more than 60 per cent of orphaned children in Namibia and Zimbabwe, for example, are looked after by their grandmothers (Unicef, 2007). This care function is also important in everyday settings of poverty or labour-related parental absence – in the urban slums of Nairobi, Kenya, for instance, more than 30 per cent of older women and 20 per cent of older men (aged 60 years or older) care for one or more non-biological child (African Population and Health Research Center, Centre for Research on Ageing, University of Southampton).

Beyond the family, older African people have key economic roles. In most Sub-Saharan African countries, older people largely remain in the labour force, particularly in smallholder agriculture, which encompasses the bulk of food production, and must be revitalised if nutrition security and sufficient job opportunities are to be ensured for younger generations. As a result of selective rural–urban outmigration, incapacity or uninterest of younger adults in farming, older people constitute a substantial share of smallholders. In Kenya, for example, the average age of a farmer is estimated to be 60 years (Olwande and Mathenge, 2011). Similarly, preliminary analyses of national survey data from Malawi and Kenya show close to 20 per cent of decision-makers on smallholder land use in both countries to be aged 60 years and older (African Population and Health Research Center). The extent to which older African people can execute their social and economic functions effectively depends heavily on their physical and mental capacity. Conversely, if their health deteriorates to a point at which they themselves need care, the responsibility is likely to fall on female younger kin, whose own health, and employment and education opportunities, can be affected. Impaired health in older age in Sub-

Saharan Africa thus affects not only older individuals, but families, communities and prospects for development more broadly.

Evidence of heterogeneity in health and function within older populations, and the importance of modifiable factors in shaping it, underscore the importance of health-promoting interventions to enable successful ageing in the region (Gureje et al., 2014). Yet, a large proportion of, or even most, older Africans lack the requisite care – results of the WHO Study on Adult Health and Ageing in Ghana, for example, showed 96 per cent of those with hypertension to have no adequate treatment for the disorder.

Despite having worse health than younger age groups, older people in Sub-Saharan Africa have been observed to use health services substantially less than younger people do (McIntyre, 2004). This disparity points to possible age-based inequalities in access to health care that need attention in addition to the widely considered axes of inequities in health (economic status, sex, ethnic origin, or rural or urban residence).

Barriers to health care faced by older African people include absence of an escort or high costs of transport to health providers, and private sector fees for medicines or treatment. Older patients use commercial providers because of the unavailability, perceived poor quality or age insensitivity of services in government facilities (Aboderin and Kizito, 2010). These providers, in a bid to achieve the health Millennium Development Goals, typically remain focused on services for infectious diseases, children and reproductive-age adults. The supply-side difficulties are exacerbated by important demand-side factors. Such obstacles include resource allocation norms within poor families, which can prioritise the needs of the young at the expense of the old, and older adults' often little appreciation of the value of, or need for, management of asymptomatic chronic disease.

In view of the direct importance of older African people's physical and mental health for the achievement of core development goals, their burden of ill health and likely inequitable access to necessary care provide compelling economic and social grounds for action.

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Isabella A. G. Aboderin and John Beard

Ageing and disease burdens: Our present and future

Martin Prince and co-collaborators, *Lancet Series on Ageing* (2014)

In low- and middle-income countries (LMICs), the epidemiological transition will result in growing exposure to cardiovascular risk factors in older people, particularly in those who are poor; an increase in the incidence and prevalence of cardiovascular diseases; and a surge in health inequalities. Addressing this issue should be a global health priority. In high-income countries (HICs), socioeconomic gradients, once established, tend to become entrenched, with poor people and people with lower levels of education failing to benefit from subsequent improvements in public health. Hence, there are two crucial and related public health challenges for LMICs: can we improve the health of successive cohorts of older people as life expectancy increases (compression of morbidity), and can this be achieved equitably?

Overview and risk exposures

In LMICs, the age-specific prevalence of dementia (Llibre Rodriguez et al., 2008) and depression (Guerra et al., 2009) is similar to that in HICs, with numbers increasing particularly rapidly given the pace of population ageing. Impact on disability (Sousa et al., 2009), needs for care and carer strain (Honyashiki et al., 2011) is



There is a lot of scope for intervention to promote health and prevent disease in older people

considerable. Dementia is the leading contributor to disability for older people in LMICs, while depression is fifth after stroke, limb impairment and arthritis (Sousa et al., 2009). Nevertheless, older people with cognitive and mental disorders are underserved by public health services. The diagnosis and treatment gap for dementia in LMICs exceeds 90 per cent (Prince, Bryce and Ferri, 2011), much higher than the 40–60 per cent in HICs that lack access to evidence-based treatment and care. While depression, alongside physical illness, predicts use of health care services, dementia is inversely correlated (Albanese et al., 2011).

Informed policy-making and planning necessitates an understanding of the present and probable future distribution of morbidity and its effect on mortality, disability and dependence.¹ Several effects need to be considered: demographic and epidemiological transitions, and secular changes in the effectiveness and coverage of disease control measures. Effects will vary between disorders and regions.

However, a globalisation of risk behaviours – including diets rich in saturated fats, increase of tobacco use and underactivity, with consequent obesity – partly causes the rapid increase in burden of chronic diseases in low- and middle-income regions. After the transition, in HICs, cardiovascular risk factors and diseases are typically associated with economic disadvantage and low levels of education, but the opposite trend is often true for LMICs.

The profile of lifestyle-related risk factors is much the same across the most burdensome disorders for older people. Dyslipidaemia, hypertension, diabetes, smoking and obesity are the major modifiable risk factors for cardiovascular diseases. Smoking is also the main modifiable risk factor for cataract- and age-related macular degeneration, COPD and lung cancer in old age. A review (Barnes and Yaff, 2011) of risk factors for Alzheimer's disease identified consistent evidence from cohort studies to accord with a causal role for smoking, physical inactivity, midlife hypertension, obesity and diabetes.

Cardiovascular diseases

The profile of cardiovascular diseases develops gradually with the epidemiological transition. As mortality decreases, nutrition improves and infections are controlled, and hypertension, ischaemic heart disease and stroke become more prevalent. As HICs advance into the so-called age of delayed degenerative diseases, age-adjusted mortality due to cardiovascular diseases decrease with effective primary and secondary prevention and better acute hospital management.

This article draws extensively on a Lancet Series on Ageing (2014) article 'The burden of disease in older people and implications for health policy and practice' co-written with Fan Wu, MD; Yanfei Guo, MD; Luis M. Gutierrez Robledo, PhD; Martin O'Donnell, PhD; Richard Sullivan, MD; and Salim Yusuf, DPhil. Adapted by kind permission. For full references and further information see www.thelancet.com/series/ageing [Accessed 1 April 2015].

A growing urgency exists to tackle cardiovascular diseases in LMICs through effective prevention and treatment, guided and monitored by robust estimates of disease prevalence and burden. These interventions mainly include drug therapy, which, although not costly, is not always available. Tobacco control is probably the most cost-effective prevention strategy, alongside combination drug therapy (statin, diuretic, β blocker and aspirin) for at-risk individuals, which include a high proportion of older people. In 2005, 62 million people were estimated to be survivors of stroke worldwide (Strong et al., 2007). Many survivors are likely to be disabled; in LMICs, stroke was the second leading contributor (after dementia) to disability and dependence in older people.

Actions suggested for stroke prevention are the same as those for ischaemic heart disease. In the WHO-CHOICE modelling exercise for African and southeast Asian regions, acute treatments for stroke and organised stroke unit care were associated with slight benefits and were not cost effective. Greater yields would be obtained through secondary prevention methods.

Cancer

Cancer is a leading cause of mortality, accounting for 9.9 million deaths yearly, of which 5.4 million (54 per cent) occur in people aged 60 years and older. For four types of cancer, most of the disability-adjusted life year (DALY) global burden is in older people: prostate (89 per cent), oesophagus (52 per cent), colon and rectum (57 per cent), and trachea, bronchus and lung (57 per cent). The high background prevalence of multimorbidity in older people leads to inadequate diagnosis of symptoms.

Rapidly ageing middle-income countries (MICs) face the daunting challenge of addressing the emerging cancer burden in the older population, alongside a growing disease burden from other non-communicable diseases and other pre-transition traditional diseases. In view of the scarce evidence for the cost-effectiveness of cancer control and treatment programmes in LMICs, policy-makers have been advised to 'start small, scale smart' (Brown et al., 2006), gaining knowledge from pilot programmes, carefully monitored for efficiency, performance and effectiveness. Surgical treatment for treatable cancers, such as breast, cervical and colorectal cancer, is likely to be cost effective, as might be adjuvant therapy with conventional radiation and drugs.

Diabetes

Diabetes mellitus accounted for 22.6 million DALYs in older people in 2010, with 80 per cent of the burden arising in low- and middle-income regions. Burden in older people is forecast to increase by 96 per cent from 2004 to 2030.

Diabetes is treated with diet, biguanide, sulphonylurea drugs or insulin. The WHO-CHOICE modelling exercise identified intensive glycaemic control (glycosylated haemoglobin less than seven per cent) combined with retinopathy screening and photocoagulation as highly cost effective for the African and south-east Asian subregions. The detection and control of diabetes in older people is suboptimum.

Chronic obstructive pulmonary disease

Chronic obstructive pulmonary disease (COPD) accounted for 43.3 million DALYs in older people in 2010, 86 per cent of the burden arising in low- and middle-income regions. The global burden has



Henk Badenhorst / iStock.com

Musculoskeletal disorders accounted for 43.3 million disability-adjusted life years in older people in 2010

been forecast to increase by 89 per cent from 2004 to 2030. The projected large increase in population burden is to be driven, mainly, by population ageing. Smoking is the most important risk factor, according to some estimates, for 90 per cent of the costs of illness (Feenstra et al., 2001). However, there is a substantial prevalence of COPD in non-smokers and other risk factors, such as exposure to biomass fuels and tuberculosis, might be important, particularly in LMICs.

In LMICs, treatment recommendations have historically been complicated by the high costs and low availability of imported drugs.

Visual impairment

Visual impairment (blindness or low vision) accounted for 10.4 million DALYs among older people in 2010, 86 per cent of the burden arising in low- and middle-income regions. The prevalence of cataracts is strongly age-associated. In most world regions, adults aged 80 years and older either have a cataract or have had cataract surgery. However, prevalence in older people aged 60–64 years seems to be higher in Asian studies than in other regions (Vashist, 2011). The prevalence of unoperated cataracts in people aged 60 years and older was 57.8 per cent (north India site) and 52.9 per cent (south India site) in two large population-based studies. Smoking cessation is the main viable strategy at present for cataract prevention, although several studies from India suggest



Quick Shot / Shutterstock.com

In most low- and middle-income countries, specialist resources for dementia are scarce or non-existent

that use of biomass fuels might also be an important risk factor (Fletcher, 2010).

In countries where visual impairment is highly prevalent, cataracts in older people from rural areas are an important underlying factor.

Cataract surgery coverage is generally low, although very variable between studies, with rural populations and women being particularly underserved. The cost-effectiveness of screening for and correcting refractive errors with glasses in older people has not been specifically examined.

Musculoskeletal disorders

Musculoskeletal disorders accounted for 43.3 million DALYs in older people in 2010, 66 per cent of the burden arising in low- and middle-income regions.

Lower-back pain is a syndrome based mainly on self-reported symptoms, with many underlying pathological changes, including mechanical causes (muscle and joint strain, disc degeneration or prolapse, or osteoarthritic and osteoporotic bone disease), with inflammatory back pain accounting for up to a third of cases. Psychosocial factors, such as stress, anxiety, depression, job dissatisfaction and low social support, predispose patients to chronicity. The WHO Scientific Group on Rheumatic Diseases estimated in 2003 that ten to 20 per cent of the world's population aged 60 years or older have significant clinical problems attributed to osteoarthritis (Woolf and Pfleger, 2003). Prevalence increases

sharply with age, since osteoarthritis is remorselessly progressive and cumulative.

The outlook for chronic lower-back pain is poor and treatment outcomes have not improved, despite increased use of surgical and other invasive techniques.

Dementia

Numbers of people with dementia worldwide will increase sharply driven by global patterns of population ageing, from 44.4 million in 2013 to 75.6 million in 2030 and 135.5 million in 2050 (ADI, 2013). Proportionate increases over the next 20 years are predicted to be much steeper in LMICs than HICs. Currently, 58 per cent of people with dementia worldwide live in LMICs, a figure that's expected to rise to 71 per cent by 2050. The total estimated worldwide costs of dementia were US\$604 billion in 2010, equivalent to one per cent of the world's gross domestic product (Wimo et al., 2013). In low-income countries (LICs), informal care costs predominate (58 per cent of all costs in LICs and 65 per cent of all costs in MICs, compared with 40 per cent in HICs).

The progressive course of dementia cannot be altered, but symptomatic treatments and support are helpful. Earlier diagnosis allows those affected to participate in advanced care planning while they still have capacity to do so; education, training and support for carers is effective in reducing carer strain and psychological morbidity, and, in HICs, in delaying or avoiding

transition into care homes. Such interventions may be more effective early in the disease course. Support groups for people with dementia, acetylcholinesterase inhibitors and cognitive stimulation to improve cognitive function, and behavioural interventions for depression are effective interventions in early-stage dementia (Prince, Bryce and Ferri, 2011). While early diagnosis and intervention is likely to be cost-effective in HICs, assuming delayed or averted transfer into costly institutional care settings, the cost-effectiveness of scaling up diagnosis and care in LMICs is unknown. However, the psychological and economic strain on caregivers is substantial and compensatory benefits practically non-existent.

There are considerable challenges in achieving acceptable levels of coverage and access to care. Currently, people with dementia receive a diagnosis late in the disease course, if at all; around half of those affected are not diagnosed in HICs, the proportion falling to below ten per cent in LMICs where awareness is even lower (Ibid).

Since dementia is very often comorbid with depression and physical impairments (including undernutrition, reduced mobility, pain, hearing and vision problems, and incontinence), horizontally structured comprehensive assessment and intervention targeting frailty and dependence is likely to be the best and simplest approach to increase coverage of care for older people with dementia and mood disorders. The World Health Organization Department of Ageing and Lifecourse is currently developing a novel intervention approach (WHO-COPE)² comprising:

- a) Community case finding of frail dependent older adults by community health workers (CHWs)
- b) Structured comprehensive home-based assessment of mental, cognitive and physical impairments, care arrangements and carer strain
- c) Evidence-based interventions for low mood, confusion, behaviour disturbance, undernutrition, reduced mobility, incontinence, low vision and hearing problems

Conclusion: Equity in health care

The worldwide epidemic of chronic disease is, to a large and increasing extent, concentrated in older people and people living in LMICs. The association between biological age, morbidity and loss of function underpins the link between population ageing and increasing burden; however, this association is neither constant nor immutable, leaving much scope for intervention to promote health and prevent disease in older people. The fitness for purpose of health services and systems for older adults and their complex, interacting, chronic medical and social difficulties is open to question.

Multimorbidity increases sharply with age, and therefore care coordination is essential. 'Frailty' provides an attractive theoretical framework within which practitioners can devise holistic assessment and treatment of older people with complex comorbidities in a structured way (Lacas and Rockwood, 2012). Packages of care for people with dementia (and other priority mental and neurological disorders, including depression) have been developed by WHO as part of their Mental Health Gap Action Plan³. As yet, these have not been taken up, implemented or evaluated for older people. Such single-condition, vertical

programmes may have limited appeal to policy-makers, who struggle to provide equitable access even to basic age-appropriate medical care for frail and dependent older people.

The Madrid International Plan of Action on Ageing called for the elimination of social and economic inequalities in access to health care and the development of health care and long-term care to meet the needs of older people. To achieve these needs, age discrimination should be countered and the challenges posed by multimorbidity and frailty addressed.

Endnotes

- 1 Seismic shifts in the burden of disease between WHO 2004 estimates (WHO, 2008) and the IHME 2010 estimates (Murray et al., 2010) have been neither highlighted nor explained. Findings from the original *Lancet* Series on Ageing (2014) review on which this article is based show that, in older people for whom the discrepancies were most striking, the burden of dementia has been cut by half and that of visual impairment by two-thirds, while the burden of musculoskeletal disorders has nearly quadrupled. This result is due to changes in disability weights rather than in the estimates of the frequency of these disorders. Disability weights will be affected by choice of respondents used to measure them, the information provided about the health states and the way that the questions are framed. WHO global burden of disease weights (WHO, 2004) were measured through a consensus of international experts, whereas the Institute for Health Metrics and Evaluation (IHME) weights portrayed judgements of the general public (Salomon et al., 2012). IHME weights link to relative health rather than relative disability, and the extent to which the IHME global burden of disease notion of health loss maps on to conventional notions of disability and dependence is open to question.
- 2 See www.who.int/ageing/about/who_activities/en/index1.html [Accessed 13 April 2014].
- 3 See www.who.int/mental_health/mhgap [Accessed 13 April 2014].

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Universal health coverage and communicable diseases



The Commonwealth

Health care systems and antimicrobial resistance

Laura J. Shallcross and Dame Sally C. Davies

Our health care systems are facing new and extreme challenges in the face of an ageing global population. The combination of better health care, disease prevention and declining fertility has led to a worldwide doubling of people aged 60 years or above since 1980.¹ By 2050 an estimated 30 per cent of the population in high-income countries will be aged 80 years or more (Christensen et al., 2009). This is good news: we have made enormous advances in health care across the globe. But our success brings major challenges in terms of how we deliver and configure health care services in the future.

Ageing is almost always accompanied by chronic and multiple diseases, physical frailty and disability. More than half of all elderly people are diagnosed with at least two chronic diseases (Marengoni et al., 2011), and the risk of multiple diseases increases with age and social deprivation. The elderly are disproportionately affected by antimicrobial resistance (AMR), largely because of intersecting factors that combine to increase their susceptibility to infection (Adam et al., 2013; Miller et al., 2007). Elderly patients have more age-related chronic ill health, such as heart and respiratory disease, kidney disease and diabetes, and patients with these conditions are more likely to develop infection. If they are admitted to hospital they tend to have lengthier hospital stays compared to younger people because they have complex health and social care needs (Shrivastava et al., 2013). This increases their exposure to drug-resistant infections; it also increases the likelihood they will be treated with an antibiotic, further increasing their future risk of drug-resistant infection. When they attend hospital, the elderly are more frequently dehydrated or malnourished compared to younger people, making it more likely that they will be treated with intravenous drugs or fluids, using a percutaneous device that will then act as a potential route for infections to enter the bloodstream. For all of these reasons, elderly patients experience a heavy burden of drug-resistant and health care-acquired infections, such as *Clostridium difficile* (CDI) and Methicillin-resistant *Staphylococcus aureus* (MRSA).² For CDI and MRSA in particular, infection is often attributed to poor standards of infection control or treatment with specific antibiotics in hospital.³ In short, we may be able to reduce the number of these infections by improving how we deliver health care and preventing people from being admitted to hospital in the first place.

Towards universal health coverage

If we want to make an impact on AMR we must work towards universal health coverage (UHC) so all patients have access to affordable health care.⁴ For elderly populations in particular we need to improve the provision of efficient, well-run preventative and long-term condition management services in the community that are linked through to specialist services in hospital. This means

preventing infection, including good hygiene and, in particular, separating potable water from sewage and implementing infection control, such as scrupulous hand hygiene. In primary care we must improve the uptake of vaccinations and promote judicious use of antibiotics to halt the emergence of resistance. This would be much easier if we had rapid diagnostic technology. Antibiotics should not be available over the counter or via the internet, but only on prescription from a health practitioner who follows guidance informed by local laboratory surveillance, with the exception of remote areas where this approach would prevent access.

In our hospitals we need robust and reliable systems to diagnose infection, with laboratories that undertake regular quality assurance. This must be supported by health information systems that feed into population surveillance at local, regional, national and international levels, so that surveillance is embedded into health care systems to directly inform antibiotic treatment guidelines. Antibiotic conservation and stewardship should be an integral part of prescribing, and in practice this requires effective leadership across all clinical specialties, including veterinary and agriculture. There must be a robust system of quality assurance, from audit through to systems for medicines management, to ensure drug supply and quality (and exclude falsified and counterfeit medicines), and improve prescribing quality. This will help to protect the lifespan of new and existing drugs. All of these efforts would be greatly helped by electronic medical records and, in particular, electronic prescribing.

None of these aims will be realised without a skilled workforce. Everybody working in health care and veterinary services should receive training in infection prevention, with specialist training in stewardship for those who prescribe antibiotics. Within our hospitals, agriculture and communities we need motivated individuals to act as 'antibiotic champions' to promote good practice and drive up prescribing quality. The current levels of investment in infrastructure and resources to tackle AMR are inadequate in most parts of the world, with a clear need for training and capacity-building. The costs of remedying this are both significant and long term, and are likely to present a barrier to action, particularly in low-income countries.

Recently, Public Health England (PHE) led the development of an innovative Commonwealth laboratory twinning programme in which high-income countries partner with low- or middle-income countries. This will support Commonwealth countries' response to AMR for their own populations and contribute to wider regional and national efforts. In the future, twinning may extend from laboratory capacity-building to epidemiological partnering, strengthening disease surveillance and sharing wider expertise. Through this programme, PHE partnered with the Caribbean Public Health Agency (CARPHA) to deliver a two-day AMR workshop for



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Factors such as complex health needs mean that the elderly are especially affected by antimicrobial resistance

CARPHA member states and territories in December 2014. The workshop was further supported by the Department of Health, UK Science and Innovation Network and the International Association of National Public Health Institutes. The Public Health Agency of Canada, Pan American Health Organization and World Health Organization supported planning and participated at the event. The workshop provided a forum for CARPHA, its membership and international partners to work together to identify key steps that the region needs to take to tackle AMR. These types of initiatives need to be encouraged to promote international collaboration and shared learning, and develop professional networks.

International collaboration

The threat of AMR is grave, but it is shared by all countries. The challenges faced by different countries vary, but some priorities for action are common to all. The only way we can tackle AMR is through collaboration at international, national and regional levels, working across professional boundaries towards a common goal. The recent World Health Assembly resolution on AMR started this collaboration, but there is still much work to be done.⁵ The resolution, ratified in 2014, mandates the development of a World Health Organization (WHO) Global Action plan (GAP) on AMR, which will be launched later this year.⁶ The GAP provides a flexible framework for countries to develop national plans that address the priority AMR issues in their individual countries, recognising that countries will be at different stages. Implementation is being

facilitated by the USA-led Global Health Security Agenda, which provides support for countries to build their health systems, working towards the goals of the GAP.

Robust and effective health care systems underpin the global response to AMR. We must all work towards UHC, to strengthen our health care systems and develop the infrastructure and workforce to improve the prevention, surveillance and treatment of infections. But this is only part of the solution. We need to invest in drug development to generate new antibiotics, and we must fundamentally change how we view and use antibiotics as members of the public, as patients and as health professionals.

Our global organisations are starting to rise to the challenge, with the WHO developing a global action plan and supporting countries in developing their own national plans. We must keep AMR high on the political agenda because without concerted action, we risk losing the many benefits of modern medicine that have been made possible by antimicrobial agents in the last 70 years.

Endnotes

- 1 See www.who.int/world-health-day/2012/toolkit/background/en/ [Accessed 12 April 2015].
- 2 Public Health England, Annual epidemiological commentary 2013–14. See www.gov.uk/government/uploads/system/uploads/attachment_data/file/330529/HCAI_mandatory_surveillance_annual_epidemiological_commentary_2013_14.pdf [Accessed 12 April 2015].

- 3 See NHS England, guidance on the reporting and monitoring arrangements and post-infection review process for MRSA bloodstream infections from April 2014: www.england.nhs.uk/wp-content/uploads/2014/04/mrsa-pir-guid-april14.pdf; and NHS Choices, Clostridium difficile – Causes 2014: www.nhs.uk/Conditions/Clostridium-difficile/Pages/Causes.aspx [All accessed 12 April 2015].
- 4 World Health Organization 2015, universal health coverage: www.who.int/universal_health_coverage/en/ [Accessed 12 April 2015].
- 5 World Health Assembly on Antimicrobial resistance, 2014: http://apps.who.int/gb/ebwha/pdf_files/WHA67/A67_R25-en.pdf [Accessed 12 April 2015].
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Closing every gap: The AIDS response

Michel Sidibé

The AIDS response has been one of the most successful public health initiatives of the last 50 years. It unites science, communities, activists and policy-makers around a common cause. It unifies efforts to address a virus that has biomedical, social, legal and political ramifications. AIDS has always been about closing gaps: between stakeholders; between the general public and people on the margins; and between rich and poor countries.

Today, almost 14 million people are receiving lifesaving HIV medicines. The number continues to increase by thousands every day and we are on track to provide antiretroviral therapy to 15 million people during 2015. In addition, we will have avoided 1.4 million deaths, prevented 500,000 HIV infections among children and protected seven million children from becoming orphans. This achievement will be our stepping-stone to reaching universal access and demonstrate that HIV treatment is a sound health and development investment that provides tangible returns.

Universal access – to HIV services, to health care, to human rights – is essential, because whenever people are excluded, everyone loses. We will only achieve our goals if we ensure that we leave no one behind. To achieve this, universal health coverage (UHC) must actively address key social determinants of health: how people live, how they work, how they access and use services and resources.

The AIDS response has successfully connected these divergent elements to deliver results for people, and provides important lessons as we strive to achieve UHC. One of those lessons is the critical importance of identifying and addressing the gaps in our programming and achievements to date. The recent UNAIDS Gap Report¹ provided us with important lessons about the causes and solutions for people being left behind, using the best possible data. The report identifies a number of 'gaps' that are also instructive lessons for broader reflections on UHC and which I will briefly address below.

Closing the investment gap

In 2013 US\$19.1 billion was available from all sources for the AIDS response, but the estimated annual need in 2015 is between \$22 billion and \$24 billion. Domestic investments from low- and middle-income countries (LMICs) accounted for around half of all HIV-related spending in 2013. Although this increase in domestic investment is a strong step in the right direction, we must also find innovative ways to diversify financing and find new ways of working.

Today, 15 LMICs account for nearly 75 per cent of all people living with HIV. By strategically focusing HIV treatment and other proven prevention tools on key geographic settings and populations where rates of transmission and unmet need for HIV services are high, we can significantly reduce the rate of new infections and HIV-related deaths.

UNAIDS has supported a paradigm shift by focusing not just on dollars but on shared responsibility and global solidarity, which takes us beyond simply raising and investing resources. It emphasised the critical importance of countries holding themselves and all related stakeholders (national and international) accountable to deliver on the commitments made for their AIDS response.

We have seen tangible programmatic results in both Africa and the Caribbean from this shift. As a result, UNAIDS is now working with countries to develop financial sustainability transition plans that will not only take AIDS out of isolation, but also feature the lessons and resources of the AIDS response in ways that inform and influence in the broader health reform landscape.

Closing the gaps in health and human rights

Ensuring that no one is left behind necessitates closing the inequity gap between the people who can access services and the people who can't; the people who are protected by our legal and social frameworks, and the people who are excluded. A key lesson from the AIDS response for our reflections on UHC is the importance of placing people at the centre of our approach. Global health and our concerns for UHC cannot only be focused on systems or pills – we must see these as tools to foster and promote human dignity.

Our recent Gap Report highlights the multiple drivers of the epidemic that produce and perpetuate disparities and inequities in access and in coverage. Gender inequalities in particular – violence against women and girls, early marriage, lack of sexual and reproductive health services – cause women and girls to be disproportionately affected by HIV. Other drivers, like food insecurity and conflict, further block access to lifesaving services.

The lessons of the AIDS response remind us that if we are to ensure universal coverage of services, human rights must be at the heart of health. It will be impossible to end AIDS – or achieve UHC – without respect for human rights and human dignity. This means ending discrimination and stigma, revisiting harmful or unhelpful laws and pushing for inclusiveness so that services and resources are available to all, ensuring that no one is left behind.

Data and common sense support this conclusion: greater social security, gender equality and improved economic opportunities are strongly linked to HIV treatment compliance, reduced mortality, and lower rates of HIV acquisition and transmission.

Left behind and overlooked

Three decades of the AIDS response has highlighted vulnerable communities – predominantly LGBT (lesbian, gay, bisexual and transgender) people, sex workers, drug users, young people, and

women and girls. The Gap Report also calls attention to a community rarely considered in programmes aimed at the vulnerable – people aged 50 and over. In this group we can find tangible examples of the issues and lessons we have discussed above.

The ageing of the world's population is one of the most significant demographic trends today. As the number of people living with HIV who are aged 50 or over continues to grow, the demand and need for long-term access to HIV and other health services will also grow. There are 4.2 million people aged 50 and over living with HIV today. They currently make up ten per cent of the adult population living with HIV in LMICs, but their needs are often underserved, overlooked or neglected.

The ageing of the HIV epidemic is mainly due to three factors. First, antiretroviral therapy has been successful in prolonging the lives of people living with HIV in high-income countries. Second, the life expectancy of a person living with HIV who achieves and maintains viral suppression on antiretroviral therapy is now similar to that of a person who has not acquired HIV. Finally, the trend of decreasing HIV incidence among younger adults is shifting the proportion of disease burden to older age groups. However, few HIV strategies in LMICs have caught up with this trend and many countries are failing to address this increasingly significant dimension of the HIV epidemic.

A large proportion of this group continues to be physically and sexually active. People aged 50 years and over exhibit many of the risk behaviours of younger people. There are indications that people 50 years and over may know less about HIV compared with younger people, as shown in surveys done in nine sites in West, East and Southern Africa. Awareness was especially low among older women. Data shows that the majority of people aged 50 and over with multiple partners do not use condoms. Sexually active women aged 50 and over are at high risk of acquiring HIV, owing to biological changes associated with menopause.

People aged 50 and over need specialised care for HIV and other chronic conditions, and are more likely than their younger counterparts to remain on antiretroviral therapy, but treatment adherence can suffer if the person living with HIV is experiencing several chronic conditions simultaneously or facing poverty and food insecurity. In countries with a high HIV prevalence, the high figure of AIDS-related deaths tends to mask the nation's potential burden of non-communicable diseases among older people since large proportions of this population do not survive long enough for non-AIDS-related illnesses to manifest.

HIV testing and treatment services need to address the distinct needs and realities of people aged 50 and over who are living with HIV. The timely detection and initiation of antiretroviral therapy is especially important, since the immune systems of older people tend to recover more slowly compared with those of younger people. In order to respond to the varied needs of people aged 50 and over, knowledge about the efficacy of and modifications to treatment regimens in different age groups must improve. At the moment, research and data are sparse. A greater understanding is required around issues related to the body's ageing process, and how the presence of other illnesses may affect HIV-related treatment.

As far as possible, all health services should be integrated to facilitate easy access and be supported by linkages to the community. As we move forward and the absolute number of people who are aged 50 and over who are living with HIV continues to grow, data collection systems need to improve and services need to adapt and evolve. Further efforts are required to integrate antiretroviral therapy effectively within care systems for other chronic diseases. HIV services for older people should be managed alongside concurrent health considerations, such as diabetes, heart disease and hypertension. HIV responses need to account for the sexual rights and evolving family and economic contexts of older people and provide prevention, testing, treatment, care and support services that are accessible and that meet their specific needs.

Increasingly, health and social services for older people should be informed by – and, in some cases, integrated with – broader initiatives to combat inequality and to end extreme poverty. Community-based services and, in particular, the provision of services and support through community- and faith-based organisations will be key to the scale up of social services for older people living with HIV. Health care providers must be trained to respond to the specific needs and challenges of this population. Special attention must be given to providing psychological and medical support as well as concrete social protection for people over 50.

Social protection instruments, such as non-contributory pensions, and health and disability insurance, have been shown to dramatically improve the welfare of older people who are living with HIV or caring for children and grandchildren who are affected by HIV. For the urban and rural poor, even small, predictable payments enable them to buy food, pay transportation costs and contribute to their families' expenses.

The Gap Report demonstrates that closing the gaps and leaving no one behind will require research and innovation, combined with protective laws that promote freedom and equality for all people. It will also require increased commitment from the global community – alongside the countries most affected – to maximise the remarkable returns on AIDS investments we have witnessed over the last decade to improve health care and social protection for all.

Endnotes

- 1 See www.unaids.org/en/resources/campaigns/2014/2014-gapreport/gapreport [Accessed 15 April 2015].

MICHEL SIDIBÉ was appointed Executive Director of UNAIDS and Under-Secretary-General of the United Nations in 2009.

Under his leadership, UNAIDS works to ensure that no one is left behind in the response to HIV and that everyone in need has access to lifesaving HIV services.

Sidibé has spent more than 30 years in public service. He has been awarded honorary doctorates from Tuskegee University and Clark University, as well as an honorary professorship by Stellenbosch University. In 2012 he was named one of the 50 most influential Africans by the Africa Report and one of 50 personalities of the year by the French newspaper *Le Monde* in 2009.

Optimising adolescent sexual and reproductive health in the SADC region

Trisha Ramraj, Darshini Govindasamy, Cathy Mathews and Ameena Goga

A 50-year global review (1955–2004) conducted in 2011 showed stark differences between reductions in child mortality compared with adolescent mortality: between 1995 and 2004, adolescent mortality was significantly higher than child mortality; additionally, all-cause mortality decreased by 85–93 per cent in one–four-year-olds, 80–87 per cent in five–nine-year-olds, but only 68–78 per cent in ten- to 14-year-olds, with Sub-Saharan Africa (SSA) having the worst adolescent health profile (Viner et al., 2011). In 2012 the global mortality rate and disability-adjusted life years (DALYs) among all adolescents was 110.7 and 21,949 per 100,000 people, respectively, with the African region accounting for the highest rates of both (282.5 and 38,297 per 100,000 people, respectively; WHO, 2014). HIV/AIDS, lower respiratory infection, meningitis, diarrhoeal diseases and road injury were among the top five causes of adolescent death and DALYs in Africa (ibid). This highlights the urgent need to provide appropriate adolescent-centred health services that care for physical, mental and social health.

Adolescence, a phase characterised by psychosocial, physiological, mental and biological change among ten- to 19-year-olds, poses unique challenges and increases vulnerability to risky behaviours. Adolescent health should be viewed from a life-course perspective: childhood health impacts on adolescent health outcomes; health outcomes and behaviours initiated during adolescence impact on adulthood and on the health of the next generation. The link between health outcomes and behaviours during adolescence and its two contiguous life phases, childhood and adulthood, should therefore influence the design of health programmes and policies (WHO, 2014).

The sexual and reproductive health (SRH) strategy for the Southern African Development Community (SADC) region (2006–15) identifies adolescent health as one of four main focal areas. It emphasises that adolescent vulnerability in the region is due to transitional issues (including the need to exercise independence and develop self-identity), poor parental and community support,



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Adolescents often struggle to access confidential sexual and reproductive health services

and poor access to health services. The overwhelming need to emphasise adolescent SRH in the SADC stems from the morbidity and mortality profile and underlying associated factors, which include high adolescent pregnancy rates, high adolescent mortality rates, unmet need for family planning, child marriage, lack of youth-friendly services and inadequate training of health care workers (HCWs). This article summarises the risk factors for poor adolescent SRH in SADC and provides key recommendations for optimal adolescent health.

Risk factors for poor adolescent SRH

Gender power inequities: Inequities contribute to early, unprotected sex and teenage pregnancy. Research from South Africa (SA) showed that adolescent girls who were prone to physical violence were at a higher risk of an unwanted pregnancy (Global Health Action, 2014).

Child marriage: SSA has the highest percentage of married 15–19-year-olds with percentages in SADC ranging from four per cent in Swaziland and South Africa to 43 per cent in Mozambique (SAGPA, 2014). Child marriage contravenes international law and the Convention the Rights of the Child (CRC, 2003). Most countries in the SADC have set the minimum age for female marriage at 18 but some, including the Democratic Republic of Congo and Zimbabwe, have set it at 15 and 16, respectively (UNFPA, 2012).

Mismatch between legislation/regulations and popular practice:

In countries like Zambia and Botswana, the permissible age for medical procedure consent (18 and 21 years, respectively) is greater than the median age of females becoming sexually active (17 and 17.5 years, respectively); this legislation hinders adolescent access to key SRH services. In Seychelles, girls over the age of 15 years can consent to sexual intercourse, but it is illegal to provide contraception to a minor (SAGPA, 2014). Sexually active adolescents often settle on using condoms because they are unaware of other methods. Research from SA and Zimbabwe shows that only four to 16 per cent of HCWs provide other methods of contraception to adolescents (Morse et al., 2013).

Unsafe abortions: The risk of adolescent maternal death is exacerbated by unsafe abortions. Since abortion is legal in only two SADC countries (South Africa and Zambia), women with unwanted pregnancies are forced to access this service illegally in other countries, risking post-abortion complications and death. In Seychelles, where abortion can only be performed to save the life of the woman, women under 20 years of age are more likely (86 per cent) to access unsafe abortions (SAGPA, 2014).

Accessibility of adolescent-friendly services for SRH:

Adolescents who attempt to access SRH services, including antenatal maternal care, HIV testing, services to prevent mother-to-child HIV transmission (PMTCT) and antiretroviral treatment, risk

Priorities for improving adolescent SRH

- 1. Recognise adolescents as a unique population** (separate from children and adults)
- 2. Review adolescent-related policies and laws to reduce mismatch between regulations and current behaviour.** Policies and laws that prohibit adolescents from accessing SRH services should be discouraged. Laws on child marriage, termination of pregnancy and the minimum age to access basic services, such as contraception and treatment for STIs, should be reviewed. Policies should encourage pregnant adolescents or adolescent mothers to continue with their education and subsequently seek employment – this requires coherence between the health and education sectors of government
- 3. Intensify interventions that improve the position of women in society and the environment in which adolescents live.** Adolescent behaviour change will not be sustained if their environment does not promote healthy behaviours. Interventions should target (i) adolescent males and females; (ii) other significant people in the adolescent's environment (partners, parents, teachers, health and social service workers); (iii) organisations (schools, health services); (iv) social structures; and (v) the legal environment
- 4. Invest in parent education or orientation to improve family functioning, resilience and communication.** All of these things are developmentally essential for optimal adolescent health. Community and faith-based organisations provide a simple platform to accomplish this in the SADC region, even though these have traditionally not been involved in adolescent health. A positive relationship between adolescents and their

families, peers and communities has been shown to be protective and promote positive adolescent health outcomes (Viner et al., 2012)

- 5. Develop adolescent-friendly care within the health system.** Each encounter with an adolescent is an opportunity to reduce their personal risk of early pregnancy or poor health outcome. Such care should provide adolescents with the motivation, skills, services and commodities of proven efficacy (condoms, contraception, antiretroviral drugs, HIV tests) to protect themselves
- 6. Expand adolescent health information to schools.** Including SRH education as part of the school curriculum has been shown to decrease sexual risk and encourage sexual health among adolescents (Bearinger et al., 2007). SRH education should also be offered as a package that includes information on HIV, STIs, contraception and unintended pregnancy
- 7. Implement and evaluate innovative ways to distribute contraception and other health information to adolescents.** These include mobile outreach programmes or task-shifting contraceptive provision to community-based providers. A review by Koon et al. suggests that the use of generalist or specialist adolescent community health workers could facilitate engagement with adolescents and promote uptake of adolescent health messages. The adoption of a youth peer provider model in Latin America, where youth peer providers under the age of 20 years are trained to provide condoms, oral contraceptive pills, emergency contraception, injectable contraceptives and SRH health information to their peers has had a high success rate (Tebbetts et al., 2013)

either being denied access because of their age, misinformed, threatened or not treated in confidence (SAGPA, 2014). HIV-infected adolescent mothers are less likely to receive the recommended PMTCT regimen than adult mothers (76.7 per cent vs 81.2 per cent), and infants born to adolescent mothers are more likely to be HIV-infected than those born to adults (Horwood et al., 2013). Mathews et al. (2009) showed that, although adolescents had better access to HIV testing at adolescent-friendly clinics, their overall experience at the clinic (HCW attitude and confidentiality) was poor. Research done by Geary et al. (2015) corroborates these findings and highlights several service provision gaps during HCW–adolescent consultations: sexual history was not taken; counselling and testing for HIV/sexually transmitted infections (STIs) was not offered; condom usage was not demonstrated; HCWs' attitudes were negative; and implementation of national family planning guidelines was sub-optimal.

Unsafe sexual behaviour: Age of sexual debut, number of partners and condom use influences acquisition of STIs. Research among adolescent males in Malawi and Lesotho found increased risk of early sexual debut (less than 15 years), compared to females. Furthermore, males aged 15–24 years in Lesotho, Madagascar and Mozambique were more likely to have multiple partners. Adolescent females in most SSA countries report lower use of condoms compared to males, raising questions around gender inequality, sexual violence and coercion (UNFPA, 2012).

Early sexual debut with limited family planning availability resulting in teenage pregnancy: Of the 16 million annual births to adolescent girls globally, 95 per cent occur in developing countries (WHO, 2011). The adolescent birth rates in SADC countries are amongst the highest in SSA. The Democratic Republic of the Congo, Swaziland, Zambia, Tanzania and Madagascar are within the top 20 SADC countries with the highest prevalence of early childbearing (Unicef, 2012). Early pregnancy is associated with negative pregnancy outcomes for mother and infant: in developing countries, adolescents below 15 years of age are five times more likely (and two times in the 15–19 age group) to die during childbirth compared to women aged 20 years and over (UNFPA, 2012).

Next steps

Kågesten et al. (2014), in a review on the impact of adolescent-focused interventions, 1998–2013, found only ten publications and concluded that the long-term impacts of adolescent health programmes, including SRH services, are not known. Research in Mongolia found that the most important determinant of youth-friendly service success was adolescent acceptability/privacy of the health service (Sovd et al., 2006). Research in South Africa found that, despite scale up of youth-friendly services, implementation was less than optimal, resulting in no significant impact of youth-friendly services on utilisation (Geary et al., 2014). Notwithstanding this, Sutton et al. (2014) highlighted the importance of the following:

- Parents' education
- Health care provider education
- Parent–child interaction
- In-school and out-of-school adolescent programmes
- The use of popular media to promote adolescent health

We recommend that SADC countries prioritise seven areas to improve adolescent SRH in the region (see Box: 'Priorities for improving adolescent SRH'). We also propose that mobile/outreach health services should play a bigger role in adolescent health care. This should be supplemented by an essential fixed service run by respectful, friendly health care providers.

Conclusion

Adolescent health is a global priority (WHO, 2014). Adolescent health services should focus on SRH as part of a comprehensive life-course approach with emphasis on risky behaviours to prevent injuries, maintain physical and mental health, and prevent chronic non-communicable adult diseases. Fixed and mobile adolescent services by formal and community health care providers should be explored for acceptability and impact. The demand for adolescent health services should be created by advocacy within communities and through community or faith-based organisations.

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Building resilience in health systems in Africa

Lord Paul Boateng

Despite the continent's wealth of natural and human resources, the Ebola crisis has challenged the 'Africa rising' narrative. If we are to show the world the great promise and potential of our beloved continent, we must learn the lessons from this terrible human tragedy. Chief among these is the importance of strong and resilient health systems that can withstand the shock of an epidemic such as Ebola and continue to provide basic health services (Kieny and Dovlo, 2015).

On 29 November 2014 I chaired a high-level breakfast meeting hosted by the Planet Earth Institute (PEI), an international charity and non-governmental organisation (NGO) of which I am a trustee. We were joined by a number of African ambassadors and leading academics, amongst them Professor Peter Piot, one of the co-discoverers of the Ebola virus in 1976 in what was then Zaire. The theme for discussion that day was 'Scientific development and resilience to health crisis in Africa: Ebola in focus'. As the spread of this disease mercifully shows signs of slowing, there are a few more important agendas that must be pursued.

It's perhaps unsurprising that Ebola was able to spread so rapidly in Sierra Leone, Guinea and Liberia, given that these nations were struggling to rebuild their social and economic infrastructures, which had been weakened by years of civil conflict (WHO, 2014). What made the situation worse, however, was that these countries had to divert all their resources towards containing the epidemic, disrupting the provision of basic health services (Boozary et al., 2014), from neonatal care and vaccination to treatment for persistent killers in Africa, such as malaria, tuberculosis and HIV/AIDS.

Fragility in health systems

More worryingly still, a new report from Save the Children (2015) shows that almost 30 more countries around the world have dangerously fragile health systems, placing them at risk of devastation by a similar epidemic. This is just one of the reasons why the Planet Earth Institute is championing resilient health systems as one of our priorities for 2015.

The Save the Children report argues that years of under-funding across Africa have meant that countries lack the resources, staff and training needed to implement effective daily health care and infection control measures. For example, 46 per cent of African countries have been unable to adopt the recommendation of the International Taskforce on Innovation Financing to spend at least US\$44 per person per year on health (Sambo and Kirigia, 2014).

The hesitation and lack of co-ordination in the international communities response to the Ebola crisis suggest that the first priority is to re-evaluate regional disease surveillance systems in West Africa. Such systems have already been established in other

parts of the world, such as East Africa, South-East Europe, Southern Africa and Asia (Save the Children, 2015).

But a more urgent long-term requirement is to build a workforce of trained health care professionals who can respond to future disease outbreaks while providing basic health care (Boozary et al., 2014). Before Ebola struck, Liberia had only 50 doctors for a population of 4.3 million people (Save the Children, 2015). This shocking statistic speaks of the chronic disinvestment in science in Africa, something the Planet Earth Institute is campaigning to redress. Not only does Africa have the world's lowest tertiary enrolment rate – of seven per cent compared to a world average of 30 per cent (British Council, 2014) – but science is often further underrepresented and overlooked by students, with only around one in ten choosing STEM (science, technology, engineering and mathematics) subjects at university (WB, 2014). Even fewer have the opportunity to study medicine.

Workforce at community level

More doctors are needed, but resilient health systems can't rely on them alone. Successful integration and prevention efforts related to viruses such as Ebola and also non-communicable diseases, such as type two diabetes, require a comprehensive strategy that includes developing a network of competent health managers at sub-national level and strengthening community health worker (CHW) capacity (House of Commons IDC, 2014). The Global Health Workforce Alliance estimates that more than seven million additional health workers are required to deliver basic services (WHO, 2013). This number could rise as high as 13 million by 2035 in line with projected population growth.

The Ebola outbreak

The Ebola pandemic has left a trail of human and financial devastation in its wake. So far, there have been more than 20,000 cases reported and a death toll of more than 9,000. As of 22 February 2015 there had been 837 new reported cases among health care professionals in Guinea, Sierra Leone and Liberia, the worst affected countries, and 490 deaths – an unprecedented number that has further weakened already fragile health care systems (Save the Children, 2015).

Ebola has also fractured the economies of these three West African countries, with the World Bank estimating that they will lose at least US\$1.6 billion in forgone economic growth in 2015 as a result of the epidemic (WB, 2015). What's more, the Center for Global Development predicts that continued negative economic impact on the region could be in the range of \$30 billion to \$35 billion over just two years – a consequence of eroded consumer and investor confidence.

As CHWs are often trusted members of a community, they can play a key role in promoting awareness about diseases and disseminating accurate information. They also provide an important link between formal health structures and primary care provision in communities, assisting in tracking patients and encouraging communities to take part in preventative activities (Lehman and Sanders, 2007). Furthermore, empowered with new technologies and as part of intensified primary health care strategies, CHWs could prove instrumental in gathering the necessary data to help detect, track and contain diseases such as Ebola. They could also give policy-makers accurate information about public health priorities, providing them with a rich window into the lives of the people they serve. This need is particularly strong in rural areas, extending to all age groups and requiring inter-generational solidarity in health care (ibid).

CHWs will undoubtedly be a vital link to communities that are currently beyond the reach of formal health systems (FHC, 2014). However, they should not be seen as a simple cure for all of the problems within Africa's numerous health systems, nor can we expect them to fulfil the roles of properly trained and specialist health care professionals (HoC IDC, 2014).

African commitments to UHC

As the world looks to expand access to health services through continued refinement of the post-2015 Sustainable Development Goals (SDGs), a concept that must feature prominently is universal health coverage (UHC). The 58th World Health Assembly defined UHC as 'access of all population to key promotive, preventative, curative, rehabilitative and palliative health interventions at an affordable cost, thereby achieving equity in access' (WHO, 2005). In this regard, UHC can be considered a practical expression of the right to health care (Ooms et al., 2014).

In the last few years, the global UHC movement has gained increased momentum. While we must acknowledge that not every African nation's health care requirements are the same, the 2009 Ouagadougou Declaration on Primary Care and Health Systems in Africa proposed a set of useful generic interventions that countries could adopt to strengthen health service delivery (WHO, 2008).

Health as a fundamental human right

In line with United Nations Universal Declaration of Human Rights, the WHO constitution states that attaining the highest standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief or economic or social condition (WHO, 2006). Disinvestment in quality health care runs contrary to this, as well as to intra-national obligations.

In the Abuja Declaration of 2001 (WHO, 2011), all African countries pledged to increase spending on health to at least 15 per cent of their total government expenditure. In 2012, more than a decade later, only seven African countries had achieved this target, with the majority of countries spending less than ten per cent. As we've seen, this under-funding can have a catastrophic effect on national health systems.

Since then, the World Health Assembly and the United Nations General Assembly have called on countries to 'urgently and significantly scale up efforts to accelerate the transition towards universal access to affordable and quality health care services' (WB, 2014). Today, some 30 middle-income countries are implementing programmes that aim to advance the transition to UHC, while many low- and middle-income countries are considering launching similar initiatives.

In Africa, the 2014 Luanda Commitment on UHC has refocused the need to implement strategies recommended by the Ouagadougou Declaration. All 54 African Union member states pledged to establish the structures and processes required to achieve UHC by 2025, with positive results already being yielded in some African countries following domestic investment in health systems. Rwanda, which has the highest proportion of government expenditure allocated to health on the continent, has seen significant improvements in health outcomes (HoC IDC, 2014). For example, life expectancy has increased from 48 to 58 in the last ten years, deaths of children under five have halved in five years and malaria-related deaths have been reduced by around two-thirds. While figures such as these are encouraging, they still demonstrate that Africa has a long way to go.

UHC is certainly an attractive concept. However, public health has to be an economic priority and we cannot ignore challenges related to health financing. An effective health finance system raises sufficient funds to ensure people can use services and are not impoverished by paying for them (HoC IDC, 2014). As of 2011, on average in the African region, government expenditure on health as a percentage of total government expenditure was 9.7 per cent, compared to 15.2 per cent globally. More worryingly still, approximately 56.5 per cent of private expenditure on health was from household out-of-pocket spending (Sambo and Kirigia, 2014). The fact that these payments form more than 50 per cent of private spending on health in 38 (83 per cent) African countries means that millions of people are exposed to financial catastrophe and impoverishment (Sambo and Kirigia, 2014).

Conclusion

The Malaria Consortium has argued that 'long-term sustainable change will never be achieved without increased support for countries to develop their own sources of health financing', with Health Action Poverty advocating a focus on enabling developing countries to collect taxes and tackle tax evasion as urgent priorities (HoC IDC, 2014).

However, while increasing revenue collection is necessary, it is not sufficient for greater domestic spending on health. This will require a combination of approaches, including innovative financing, such as taxing tobacco, alcohol, foreign exchange transactions and mobile phone use (TIIFHS, 2009), and better leveraging of the private sector (Sambo and Kirigia, 2014). It also requires facilitating the effective participation of corporate companies in contributing to strengthening health systems and driving greater efficiency in the allocation of health resources.

Regarding this latter point and in line with the emphasis on achieving UHC, the Department for International Development (DFID) in the UK has argued that, while outcomes can be improved rapidly in the short-term through disease-specific 'vertical'

intervention, focus on broader health system strengthening is essential if long-term efficiency, sustainability and, ultimately, self-sufficiency are to be realised (HoC IDC, 2014). This means that an increasingly system-centric focus is required. Somewhat paradoxically, it was the Ebola outbreak and the resultant devastation that has demonstrated this so acutely.

I am reminded of something President of Ghana John Dramani Mahama said during his speech to the 69th General Assembly of the United Nations in September 2014: 'True progress relies on neither victory nor defeat, but on persistence, on perseverance.' As West Africa and the wider continent emerge from this dark and terrible catastrophe, we must indeed persevere. Then and only then can we show the world that Africa is indeed rising.

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Ebola: A watershed for health systems and development?

Hossinatu Mary Kanu, Senesie Margao and Jill Iliffe

At the end of December 2013 a two-year-old child living in the remote village of Meliandou, Guinea, died from a 'mysterious disease'. In March 2014 the Ministry of Health in Guinea reported concerns about the spread of this 'mysterious illness', which was eventually diagnosed and reported on the website of the World Health Organization (WHO) Regional Office for Africa on 23 March as Ebola Virus Disease (EVD). By that time, the end of week 11 of the epidemic, there were 86 reported cases in Guinea and 60 deaths (WHO, 2015a). Médecins Sans Frontières (MSF) was the first international agency to respond, establishing a base in Guinea in March 2014 within four days of the declaration of the epidemic in that country. By week 25, on 23 June 2014, MSF warned the world that the epidemic was 'out of control', with 528 cases and 337 deaths being reported across 60 sites in Guinea, Liberia and Sierra Leone.

However, it was not until the end of week 31, on 9 August 2014, that the WHO declared the Ebola epidemic a 'public health emergency of international concern'. By this time there were 1,171 cases and 932 deaths. The WHO noted that the three countries most affected had fragile health systems with significant deficits in human, financial and material resources, resulting in a compromised ability to mount an adequate Ebola outbreak control response. They were inexperienced in dealing with Ebola outbreaks; there were misperceptions about the disease and how it was transmitted; there was high population mobility across borders; and a high number of infections had been reported among health care

Ebola Virus Disease

Ebola Virus Disease is a severe, often fatal, illness. The origin of the virus is unknown, however, the WHO reports that, based on available evidence, fruit bats (*Pteropodidae*) are considered the likely host. In areas of Africa, infection has been documented through the handling (blood, secretions, organs and other body fluids) of infected chimpanzees, gorillas, fruit bats, monkeys, forest antelope and porcupines, either alive or dead. In the current outbreak in West Africa, however, the majority of cases have occurred as a result of human-to-human transmission.

Infection occurs through direct contact of broken skin or mucous membranes with the blood or other body fluids (faeces, urine, saliva, semen, sweat) of infected people. Infection can also occur if broken skin or mucous membrane comes into contact with clothing, bed linen, needles or surfaces that have been contaminated with an Ebola patient's infectious secretions or body fluids. There are five different strains of the Ebola virus. The Zaire strain of the Ebola virus was responsible for the outbreak in West Africa (MSF, 2015).

workers, highlighting inadequate infection control practices. The international community was already aware that the affected countries faced these challenges long before the outbreak of Ebola.

It was not until week 37 that, on 18 September, the United Nations Security Council unanimously passed Resolution 2177 (2014), stating that the 'unprecedented extent' of the epidemic 'constituted a threat to international peace and security'. Twelve months after the first epidemic was declared in Guinea in March 2014, there had been 24,282 cases and 9,976 deaths, 491 of them health workers (WHO, 2015b), and the EVD epidemic in West Africa – Guinea, Liberia and Sierra Leone – is still not over. Many questions are now being asked the world over as to how and why this situation developed, and what we can do to make sure it does not happen again.

The international response

In 2010 a WHO review committee was convened to evaluate the response to the 2009 H1N1 influenza pandemic and assess the level of global preparedness for similar events in the future. The committee concluded: 'The world is ill-prepared to respond to a severe influenza pandemic or to any similarly global and threatening public health emergency.' However, in November 2014, four years later, only 64 of the 194 WHO member states were assessed as having the essential surveillance, laboratory, data management and other health system capacities to respond to a public health emergency. Having faced the threat of H1N1 in 2009 and knowing in 2014 that at least 130 countries were unprepared for a public health emergency, why was nothing done?

Wilkinson and Leach (2014) offer a set of explanations and contend that 'structural violence' contributed to the epidemic. They define structural violence as 'the way institutions and practices inflict avoidable harm ... damage is done unequally and often in a manner which comes to be taken for granted' (p. 1). They argue their case within three domains: the failure of outbreak response and global health governance; compromised health systems and development policy; and misleading assumptions and myths.

Failure of outbreak response and global health governance

Wilkinson and Leach maintain that from the outset, and despite warnings, the international response to Ebola was 'disastrously ineffective', lacked leadership, funds, equipment and human resources, and that it was an avoidable disaster. While the WHO comes in for criticism, they point out that essential restructuring following significant budget and staff cuts in 2011 led to a re-focus of WHO priorities on non-communicable diseases (NCDs) and a shift to providing technical advice rather than taking responsibility



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The cancellation of international flights seriously hampered the distribution of personal protective equipment to countries affected by the Ebola virus. Pictured: A health worker hands an orphaned baby to a neighbour

for health as a global public good. The capacity of the WHO to respond to global health emergencies was also influenced by politicised appointments of staff, and poor and disjointed co-ordination between head office and regional and country offices. The WHO itself, according to its website, sees its role as ‘convener and conduit ... providing information and services and mobilising partners to agree on standards and courses of action’ in international health emergencies.

The policies of new players with significantly larger budgets than the WHO, pursuing vertical programmes relating to specific diseases such as HIV, tuberculosis and malaria, completely undermined commitments to horizontal health system strengthening. Additionally, Wilkinson and Leach (ibid) point out that international donations to the Ebola relief fund of the United Nations were poor from both governments and the private sector. They comment that the need for international governance systems that conceive of health as a properly funded global public good, enabling rapid responses to crises when they do emerge, has been undervalued for too long.

Compromised health systems and development policy

Health outcomes in Sierra Leone were already poor before the Ebola outbreak (see page 258 for facts, figures and an explanation

of the structure of Sierra Leone’s health system). A history of political stability, corruption, and civil wars in Liberia and Sierra Leone left essential infrastructure neglected or destroyed. Wilkinson and Leach (ibid) note that, in the three countries worst affected by EVD, there was a ‘pervasive’ lack of resources, equipment, money and health workers, and what was there was likely to be inappropriate or inadequate. The structural adjustment programmes promoted by the World Bank and the International Monetary Fund require as a condition of loans that poor countries pursue deregulation, privatisation, market competition and wage suppression; and reduce public spending, government provided services and social spending. As a consequence, there were reduced resources for, and capacity to, strengthen health systems. Health became a commodity and an individual responsibility. Countries relied heavily on donor aid to meet essential health services and were captured by the priorities of the donor rather than the needs of the community. The lack of services led to a loss of confidence in the system by the community, who turned to traditional healers and traditional medicine to meet their health needs.

Assumptions and myths

The first misleading assumption on the management of the Ebola epidemic addressed by Wilkinson and Leach was that Ebola could be contained within national borders; that closing borders would

be effective for a highly mobile population whose movement patterns reflected not just trade routes but social networks and kinship visits. The response by airlines in cancelling flights to the affected areas of West Africa, which Wilkinson and Leach describe as 'hysterical', made it difficult for the international mobilisation of health workers and essential goods to the area. The initial response from officials warning people against eating bush meat was another myth that Wilkinson and Leach maintain was irresponsible in the extreme, depriving people of essential protein and suggesting that Ebola was transmitted from animal to human rather than human to human. An opportunity was lost for education on the safe use of bush meat and honesty about transmission of the virus.

Implementing a centralised treatment model and failing to work with communities was another misleading assumption that cost lives. The distances and the roads made it impossible for sick people to make the journey. Community education, engagement and co-operation at the local level from the beginning would have done more to halt the spread of Ebola, identify infected people and trace contacts. Working with communities to find solutions for dignified burials, Wilkinson and Leach state, would have contributed to a greater understanding of the way the disease spread, and allayed fears about the reason for decisions made and the dehumanising personal protective equipment worn by health workers.

The Commonwealth response

The Commonwealth Nurses and Midwives Federation (CNMF) has a close relationship with the Sierra Leone Nurses Association (SLNA), which advised the CNMF in late June of the deaths of three nurses from EVD. This was reported in the July 2014 issue of the CNMF e-News and messages of support from other CNMF members were sent to the SLNA, with regular communication and support established. Could the CNMF have done more? Yes, of course. An attempt was made by diaspora nursing groups in the United Kingdom to enrol volunteer nurses and midwives from all Commonwealth countries to go to Sierra Leone under the auspices of the UK government. Despite the fact that a positive

response was received from nurses in Commonwealth countries outside the UK, the logistics of gaining permission from their own country to travel to Sierra Leone, the implementation of travel restrictions to West Africa and the uncertainties within the UK programme as to how they could ensure the safety of volunteers from other countries, meant that the programme was limited to UK nurses only. Putting out a call for individual nurses from Commonwealth countries to donate personal protective equipment to send to Sierra Leone was not a feasible option with flights suspended to the region. Continuing to raise awareness and encouraging nurses to do the same at a national level was considered the only option available, but it was grossly insufficient.

On 1 August 2014 the Secretary-General of the Commonwealth issued a statement offering condolences, and expressing appreciation and encouragement to health workers treating the sick at personal risk to themselves, as well as commending the response of the international community (Sharma, 2014). On 17 October 2014 the Secretary-General announced that the Commonwealth Secretariat had funded an expert to provide technical assistance in Sierra Leone to the government to prepare Ebola response plans at the local-government level. In January 2015 the Commonwealth Secretariat advertised a one-year position for a public health management expert adviser to be based within the Sierra Leone Ministry of Health and Sanitation to assist with strengthening the Sierra Leone public national health system post-EVD.

Symptoms and incubation

The signs and symptoms of EVD include sudden onset of fever, intense weakness, muscle pain, headache and sore throat. These symptoms can be followed by vomiting, diarrhoea, rash, impaired kidney and liver function, and, in some cases, both internal and external bleeding – nose bleeds, blood in vomit, blood in bowel motions, bleeding from the conjunctiva and mucous membrane of eyes, nose and mouth (MSF, 2015).

The incubation period for EVD is two to 21 days. People are not infectious in the incubation period, but become infectious once they start exhibiting symptoms. Patients are considered free from infection once a blood test for EVD is negative. Recovery from EVD provides immunity to the strain of the virus that caused the infection. The WHO, however, advise that the EVD virus can be isolated in semen for up to three months post-infection and recommend abstinence from sexual activity during that period.

Treatment and transmission

Transmission of the disease can be animal to human or human to human. In the current outbreak in West Africa, human-to-human transmission was the major mode of transmission. Those most at risk of contracting Ebola are family members or anyone in the community in contact with, or caring for, an infected person; and health workers and family members, mourners and others involved in the burial of casualties. Direct contact with dead bodies, for example at funerals, was one of the main ways the disease was transmitted. Funerals are a significant practice in the communities affected by the outbreak and involve people washing and touching the body, expressing their love for the deceased. In the last hours before death, the virus becomes extremely virulent and therefore the risk of transmission from the dead body is much higher. For these reasons, ensuring safe burials is a crucial part of managing the outbreak. The Ebola virus took advantage of people's basic instincts when caring for an ill family member – that of touch – and with the difficulty of transport and access to an appropriate health facility in rural areas, many family and community members were also infected.

There is no specific cure for EVD, although several vaccines are under development. Standard treatment is limited to supportive therapy, consisting of maintaining hydration with intravenous fluids or oral rehydration solutions that contain electrolytes; maintaining oxygen status and blood pressure; providing high-quality nutrition; and giving antibiotics for any concomitant infections (MSF, 2015).

Could the Commonwealth Secretariat have done more? Yes, of course. All international bodies could have done more. The message from front-line health workers in Sierra Leone was that they were dying because of a lack of personal protective equipment, and a lack of knowledge about correct infection prevention and control procedures. In our view, the Commonwealth could have played a leading role in mobilising the donation and delivery of such equipment from member countries, and in identifying and supporting the delivery of training in infection prevention and control.

The major strategies for managing an EVD outbreak are outlined in the WHO *Ebola Response Roadmap*, released 28 August 2014, and include:

- Early identification of infection
- Isolation until confirmation of infection
- Confirmation by laboratory testing
- Appropriate care and treatment, including rehydration, strict infection control and use of personal protective equipment
- Contact tracing
- Safe disposal of waste and safe burials
- Ongoing surveillance
- Community education and engagement

Ebola in Sierra Leone

Following the brutal civil war (1991–2002), a decade of relatively stable government did not give Sierra Leone sufficient time to develop resilient health or other systems, or to repair country-wide infrastructure (water, sanitation, education) that impacts on population health. For example, in 2014 only 42 per cent of the population of Sierra Leone living in rural areas had access to improved drinking water and only seven per cent had access to improved sanitation. It is almost impossible for people to observe strict hand washing procedures when there is no safe water supply or there is only one tap in the main street servicing several thousand people. Electricity supplies are rationed on a daily basis, particularly in rural areas, which impacts on boiling water to provide safe water and maintain hygiene, and also on maintaining communication.

The population of Sierra Leone is around six million with a median age in 2014 of 19 years of age. Two-thirds of the population in 2014 were under the age of 25 years, however, the literacy rate was only 43 per cent (CIA, 2015).

Sierra Leone was not equipped to respond to such a virulent epidemic. The challenges included a limited capacity to provide and maintain a safe practice and care environment in health facilities; inadequate human resources, both in quantity and quality; maldistribution of the existing health workforce; weak disease surveillance and response systems that were not yet integrated across the country; a poorly developed emergency preparedness plan; inadequate health technologies, including medicines, supplies and laboratory services; weak supply chain management; an ineffective referral system; and weak co-ordination across the country because of inadequate roads, transport and communication.

Sierra Leone reported its first laboratory confirmed case of EVD on 25 May 2014 from the Kailahun District, located in the eastern

region of Sierra Leone near the shared border with Liberia. The Ministry of Health and Sanitation responded quickly, declaring an epidemic, implementing a national response and seeking external support. Over the next nine months, confirmed cases totalled 10,740 with 3,276 deaths, according to the WHO Ebola Situation Report on 4 February 2015. In addition to the external support, guidance, construction of isolation centres, and provision of equipment and laboratory services, the Nursing Directorate, with technical support from the WHO, developed guidelines on the use of personal protective equipment and around 1,000 front-line nurses were trained and deployed into Ebola facilities to support the response. A monitoring and supervisory team was formed using personnel from the Nurses and Midwives Board of Sierra Leone to visit all Ebola facilities. Then, 100 senior nurse supervisors were deployed to all health facilities across the country to monitor, mentor and supervise junior staff.

Large numbers (296) of health care workers in Sierra Leone became infected with EVD and 221 died; a much higher proportion than in the general community. Most (152) of them were nurses (two registered nurses; three midwives; two nurse anaesthetists; one student nurse; 76 enrolled nurses; 33 maternal child health aides; 26 nursing aides; and nine traditional birth attendants). There is a thin line between care and fear. Nurses were not only concerned for their own health and safety in caring for people infected with EVD, but they also experienced hostility from members of the community and often from their own family members, who were concerned the nurses were spreading the infection. Many nurses were afraid to go to work. Many nurses who came to work were not permitted to return to their own homes and communities. Ebola survivors – those people who tested positive and survived the illness and then tested negative for the virus – also faced discrimination and were frequently refused re-entry into their homes and communities. Certificates were given verifying that they were Ebola free, however, often that was not enough.

Watching people suffer and die, watching their colleagues suffer and die, struggling with heavy workloads and inadequate equipment and resources, and fearing for their own safety was a heavy burden for the nurses to bear. Care was provided in an environment of mutual mistrust between patient and health care worker: is this person going to save me? Is this person going to infect me?

Back to basics: Hand washing

In Sierra Leone, the most important and basic prevention strategy – hand washing – has been infrequently or incorrectly practiced. Health workers had poor knowledge about infectious diseases and EVD in particular. Their knowledge, skills and practices in infection prevention and control were inadequate, and there were no national standards or guidelines. Health workers lacked basic personal protective equipment (impermeable gloves, waterproof boots, goggles, fluid resistant mask or respirator mask, impermeable coveralls and aprons, head cover). Health facilities were poorly and inadequately maintained – including water and waste management – and wards were overcrowded with limited physical space.

The Sierra Leone Ministry of Health and Sanitation funded the SLNA to provide infection prevention, and control education and training for 568 nurses and other health workers in all 14 districts in Sierra Leone. This took place 14–31 July 2014. The education and training covered:

- Information about EVD, especially methods of human-to-human transmission
- Signs and symptoms, and identification of suspected cases
- Appropriate treatment, management and care
- Reinforcement of standard precautions, and infection prevention and control
- Practice in the use of personal protective equipment
- Safe disposal of waste and safe burial
- Supportive care for care-givers

Sierra Leone nurses, midwives and other health workers who attended the training identified the challenges they faced as inadequate personal protective equipment; poor working conditions and environment; inadequate knowledge about EVD prevention and care; lack of isolation materials; poor communication; and delays in obtaining laboratory results. They sought adequate personal protective equipment to keep them safe; ongoing education and training; the necessary resources, including human resources, to be able to provide appropriate and sufficient care; and improved working conditions and environment (SLNA, 2014). The Commonwealth Foundation has funded the SLNA to provide additional infection and prevention training, and has indicated a willingness to work with the SLNA and the Ministry of Health and Sanitation in establishing infection prevention committees in all major health facilities, both urban and rural.

Sierra Leone faces significant challenges in the future. Following the deaths of doctors, nurses, midwives and other health care workers as a result of EVD, active intervention will be required to rebuild the health workforce. The environment of mistrust between nurses and patients as a consequence of their experience with Ebola has affected the motivation of nurses to continue nursing. Sierra Leone needs nurses more than ever, but the number of nurses will make no difference if the system is not there to motivate and support them.

Many people who died are between 30 and 45 years old. There are families and communities who have lost the majority of their adult members, leaving many orphaned children and elderly people. In some communities there is hardly anyone left to cultivate the fields or provide for the family.

The Sierra Leone Ministry of Health and Sanitation has prepared a three-stage recovery and resilience plan for post-Ebola. Five pillars have been formed to address the challenges and gaps in the ministry:

- Patient and health worker safety
- Health workforce
- Essential health services
- Community ownership
- Surveillance and information

The plan covers early recovery (six to nine months), recovery (2015–18) and resilience (2018–20). Additionally, a national policy and strategy on infection prevention and control is under

development, along with standard operating procedures and training manuals. A national infection prevention and control co-ordinator has been appointed and 25 focal points have been identified at every tertiary and secondary hospital, with senior nurse supervisors trained alongside international partners and deployed. Plans are underway to incorporate infection prevention and control into all health worker curricula. Meeting infection prevention and control practices through continuing professional development will be a benchmark for the re-licensure of nurses and midwives.

Conclusion: A crisis of poor health coverage

Wilkinson and Leach state that it was the inherited inequalities from past policies that allowed a virus like Ebola to devastate three countries in the absence of fundamental public health and state capacities. They remind us that dramatic gains in life expectancy and reductions in the burden of disease come from improved living standards, sanitation, nutrition and prevention, rather than from medicine alone, but that this is consistently overlooked by international donors looking for a ‘quick fix’ for particular diseases.

The social disruption to families and communities cannot be measured or easily addressed. Overcoming the disruption to education, the economy, food supplies, agricultural production and trade will take time, effort and resources. Other health priorities that have been neglected while responding to the Ebola crisis will need to be factored into plans for recovery.

Wilkinson and Leach urge that the Ebola epidemic should be a ‘game changer’ for development, and that the inequalities that created and deepened the crisis are not sustainable. Rebuilding fragile health systems and states must be accompanied by tackling the inequalities, they contend, so that health systems can be sustained with a sufficient home-grown health workforce and locally managed resources, not just with donated goods and services linked to external priorities.

The global community failed Guinea, Liberia and Sierra Leone, and it will be a tragedy if too little is done to strengthen the fragile health systems in those countries to ensure that what happened in 2014 will not happen again, or to prevent another crisis developing in another vulnerable country.

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Establishing vaccine infrastructure: Learning from the polio endgame

Judith Diment

It is a truism of current public health thinking that the pursuit of single disease eradication is inefficient and inequitable in meeting sustainable development goals.

The Global Polio Eradication Initiative (GPEI), spearheaded by Rotary International, is an initiative that has touched every Commonwealth member state with a far broader impact than the obvious protection of children from polio; it is a contribution towards a possible new UN development goal of combating communicable diseases and providing universal health coverage (UHC) by 2030.

Building on the previous Commonwealth Health Ministers Meeting, which looked at health in the post-2015 development agenda, now is a good opportunity to look at some of the best practices from the perspectives of civil society, and the public and private sectors in relation to UHC.

The WHO¹ offers a useful definition of the prerequisites of UHC:

- A strong, efficient, well-run health system
- A system for financing health services
- Access to essential medicines and technologies
- A sufficient capacity of well-trained, motivated health workers

The GPEI offers not only one of the most complete advances towards the ideal of UHC, but also puts into practice a holistic approach to disease eradication that progresses multiple development goals as we transition to the Sustainable Development Goals (SDGs) at the end of this year. It advances, in particular, at least nine of the 17 SDGs, including engaging with the challenges of poverty, disease prevention, gender equality, economic development, resilient infrastructure and equity.

As Michael Sidibé (2014), executive director of UNAIDS, wrote in this publication last year, it is vital to address 'the social determinants of health more broadly – poverty, discrimination, gender violence and inequity, sexual and reproductive health and education'.

Ending polio

Rotary, a non-profit organisation, had the audacity to take on the challenge of seeking a polio-free world. In 1985 it launched its PolioPlus programme, the first initiative to tackle global polio eradication through the mass vaccination of children. Three years later, the GPEI was formed, with the mission of ending polio forever. The idea was that by fighting to eradicate polio, the global infrastructures to fight other diseases would also be strengthened.

The underlying principle of UHC is equity and the notion of equity is also at the core of polio eradication. The GPEI has brought vital health interventions (not only polio vaccination) to some of the

poorest and most disadvantaged populations over the last three decades. The boat-dwelling fishing communities in Cambodia and Vietnam, nomads in Pakistan, Afghanistan and Somalia, and construction workers in Delhi have all been reached by the initiative.

Broader health interventions

In many countries, polio vaccination campaigns are linked with other health interventions. During measles vaccination campaigns, for instance, the oral polio vaccine is frequently given alongside the one for measles. Vitamin A has been widely distributed for many years during polio campaigns, and has resulted in measurable improvements in indicators associated with vitamin A deficiency in many countries.

In Nigeria, health clinics set up as part of the polio programme infrastructure have served as a staging post for multiple medical interventions, including measles vaccination, treatment of intestinal parasites, distribution of Vitamin A and bed nets to protect against malarial mosquitoes.

The 'plus' in PolioPlus means that Rotarians are doing more than stopping the spread of polio in the last three countries in which it is endemic: they are also building a legacy of infrastructure and partnerships that will support the fight against infectious disease long after polio is gone. For example, most vaccines require refrigeration from the time they leave the manufacturer until they reach the recipients. Rotary has focused on setting up viable 'cold chains' in each country, from refrigeration units in major cities to kerosene refrigerators in areas without electricity, to carrying cases that allow the vaccine to be kept cold during vaccination campaigns in rural areas.

The cold chain created to distribute the polio vaccine has been used to transport other vaccines, such as measles, tetanus and diphtheria. An estimated one-third of the cold chain capacity in Sub-Saharan Africa was created to support polio eradication.

The work of the GPEI and Rotary has also benefited the GAVI Alliance, an international organisation focused on improved access to new and underused vaccines for children living in the world's poorest countries. GAVI's successful Pentavalent² vaccination campaign drew upon the infrastructure and cold chains that had been established.

Ebola response

Most recently, the influence of the GPEI can be credited for what the World Health Organization (WHO) described as Nigeria's 'world-class' public health response to thwart the Ebola virus last year (Courage, 2014).



Asianet-Pakistan / Shutterstock.com

Polio vaccination campaigns often run alongside other health programmes, such as the distribution of mosquito nets. Pictured: Administering the Polio vaccine in Chaman, Pakistan

When Nigeria's first Ebola case was confirmed in Lagos in July 2014, the health authorities needed to act swiftly and decisively to prevent an outbreak spreading in Africa's most populous city. To prevent an epidemic, they would have to trace all potential contacts of the first case, continuously monitor all these contacts and rapidly quarantine all potentially infectious contacts.

Immediately after the first case of Ebola was confirmed, Nigeria repurposed the polio vaccination infrastructure to trace other cases. The country's emergency response resources to fight infectious diseases had been developed over several years in the fight against polio. When Ebola struck, Nigeria was prepared, with cutting-edge GPS and surveillance technology to track cases, a network of laboratories to test blood samples, and hundreds of well-trained health workers to treat patients and control the virus.

With co-ordination from the country's Emergency Operations Center (another structure created by the polio campaign), Nigeria's health workers completed a remarkable 18,500 in-person visits to monitor the virus among a total of 989 identified contacts. By the end of October 2014, the WHO declared Nigeria free of Ebola transmission.

Apart from thwarting the Ebola outbreak decisively, Nigeria has suffered no new polio cases for seven months and the African continent could be on the verge of ending polio.

Sharing best practice in South Asia

India, once regarded as the toughest place on earth in which to eradicate polio, with sanitation challenges and high population density, was declared polio-free last year, freeing South-East Asia from the grip of the disease. Keen to strengthen cross-border co-ordination, India sent delegations of surveillance medical officers for deployment in Nigeria (for polio) and to Sierra Leone (for Ebola). It also hosted local health officials from Afghanistan to demonstrate best practice from its National Polio Surveillance project. Pakistan's Emergency Operations Centers, developed in Pakistan to co-ordinate polio eradication activities, are based on Nigeria's successful model of the centre.

GPEI and Rotary workers are sensitising community and religious leaders about the benefits of the polio vaccine and gaining their backing. National Islamic leaders have issued dozens of *fatwas* promoting the safety of the polio vaccine and the importance of vaccinating children. The influential Ulema Mashaikh Council of leading religious scholars added its support to immunisation drives in Pakistan in March 2015, also issuing a *fatwa* in favour of immunisation.

Cognisant of the need to mitigate the effects of conflict, instability and geographical isolation, the GPEI is installing vaccination posts (with the help of funding by Rotary) on the perimeter of insecure areas in Pakistan to target transient populations.

Rotary's initiatives in conflict-affected Sri Lanka and El Salvador have employed 'days of tranquillity', allowing health workers to access isolated populations and helping mediators initiate dialogue between warring parties. No less than any other aspect of sustainable development, UHC depends on peacebuilding for a world without violent conflict in order to be fully realised.

Conclusion: A leadership opportunity for the Commonwealth

The grass-roots engagement of the polio campaign, involving millions of health workers and volunteers over a sustained, 30-year effort, combined with its high-level political focus, is already creating a lasting legacy for UHC.

The latest statistics are cause for optimism, with half the number of polio cases reported by the end of March 2015 compared to the same period last year. Nevertheless, declines in immunisation and monitoring coverage in many countries previously declared polio-free create pockets of vulnerability and risk for reinfection by the wild polio virus.

The Commonwealth is well positioned to play a leading role in the final push towards a polio-free world. The forthcoming creation of Commonwealth Health Exchange, an online portal for Commonwealth member states and their health care professionals to collaborate, share best practice and develop joint projects, as well as to access expert-reviewed collections of useful online information, points the way forward for the legacy of innovative multilateral initiatives like the GPEI (Commonwealth Secretariat, 2015).

GPEI

GPEI is a multilateral effort by Rotary International, the World Health Organization, Unicef and the US Centers for Disease Control. More recently, the Bill and Melinda Gates Foundation – a private institution like Rotary – has joined the cause. Other key public and private players are, respectively, most of the world's national governments and the pharmaceutical industry.

The initiative has achieved notable successes: polio paralysed about 350,000 children a year – nearly 1,000 children every day – when the campaign began, but polio is now on the brink of eradication, with fewer than 370 cases reported worldwide for all of 2014. Only three countries (Afghanistan, Pakistan and Nigeria) remain polio-endemic.

The GPEI recognises the vital importance of engaging the support of women, particularly those who are from the communities being served. Pakistan has trained a team of more than 100,000 female community workers to deliver basic health services, including immunisation. Female health workers are a fulcrum of polio vaccination campaigns, demonstrating heroic commitment in the face of insecurity and resistance. In other countries too (India and Nigeria included), women make up the vast majority of this workforce.

Momentum is building in support of a declaration on continued European Union support for polio eradication, and the EU Commissioner for International Cooperation and Development has expressed his determination to eliminate the disease. As the declaration iterates, childhood immunisation is one of the most cost-effective public health interventions available: 'Global polio eradication efforts have already generated net benefits of \$27 billion and could save up to \$50 billion by 2035 in direct and indirect health care costs, notwithstanding immeasurable savings in human suffering.' Most of those gains will occur in resource-poor developing countries and these can be reallocated to other vital development goals. These benefits are confirmed by a recent *Lancet* Commission investigation into the effects of UHC, chaired by Larry Summers.³

If the Commonwealth fulfils its potential to lead the final push against polio, a great public health achievement is on the horizon. After smallpox, polio would be only the second human disease ever to be eradicated, and in its wake powerful infrastructures of disease prevention and surveillance; multilateral networks equipped to respond to crises across borders; and experienced health care professionals would remain, ready to address other public health challenges and forge ahead with robust and sustainable development.

Endnotes

- 1 See www.who.int/universal_health_coverage/en/ [Accessed 13 April 2015].
- 2 A five-in-one shot against influenza, diphtheria, tetanus, whooping cough and hepatitis B.
- 3 See www.thelancet.com/commissions/global-health-2035 [Accessed 13 April 2015].

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Health impact assessments: Communities and extractive industries in Africa

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The global demand for non-renewable natural resources, i.e. minerals, oil and natural gas, is increasing. This has led to an acceleration in the development and expansion of extractive projects in Africa. Countries in Africa have an opportunity to use their natural resources as an important agent of positive economic and social development (APP, 2013). However, the inherent challenges, opportunities and risks that extractive industries pose need to be better anticipated and managed. Economic prosperity – locally, regionally and nationally – must also be balanced alongside environmental, social and health protection.

Community health is both a prerequisite and an objective of sustainable project development and management. A health impact assessment (HIA), complemented by an environmental and social impact assessment, can help to protect and promote community health as part of a project's sustainability objectives. It provides an important mechanism for maximising the positive impacts, and minimising the negative impacts, on community health and well-being associated with natural resource extraction projects. It enables tangible benefits to be realised for local communities, companies and governments by supporting this key component of sustainability across an extractive project's whole lifecycle.

A range of organisations have provided international support for HIAs being undertaken as part of extractive projects. These include the International Council on Mining and Metals (ICMM), the International Petroleum Industry Environmental Conservation Association (IPIECA), the International Association of Oil and Gas Producers (OGP), the World Health Organization (WHO) and the International Finance Corporation (IFC). The main driver for conducting HIAs in private-sector projects has been multilateral financial institutions' lending requirements, i.e. the IFC's Performance Standard 4 and the Equator Principles. In some cases, the driver has also been an extractive sector business's internal social responsibility commitments or sustainability policies and standards (Viliani and Clarke, 2013). Though the application of HIAs is increasing, the lack of a regulatory framework in many countries, coupled with project financing that does not fully consider sustainability principles, means that community health risks and impacts are often not fully recognised or properly managed. This is true in many small- to medium-sized extractive projects and some larger scale projects as well.

Community health challenges of extractive sector projects in low- and middle-income countries

In Africa, countries carry a significant burden of disease and are often disproportionately affected by traditional communicable diseases, particularly in the tropics. However, the emergence of

non-communicable diseases is also taking root. This generates a double burden on public health and health care systems in these countries in a context that already lacks the financial resources and organisational capacity to cope with either individually. It is against this backdrop that extractive projects can have significant and long-term positive impacts on community health and well-being by improving local, regional and national economic vitality through jobs in the project itself or ancillary businesses, improved local infrastructure and social investment programmes.

However, they can also bring with them a range of unintended effects, especially if they are located near rural under-served communities with weak public services and a burden of disease higher than that of similar urban communities or the national average. Social and cultural challenges may occur alongside economic and environmental change, with vulnerable groups being particularly susceptible to changes associated with sudden economic and infrastructure development that can occur with extractive projects. This can amplify existing environmental, social and economic challenges, leading to a range of health and well-being impacts in communities that are already stretched, have little spare coping and adaptive capacity, and where there is limited institutional capacity in public health services to anticipate or respond to such impacts.

Project-induced influx is one such impact and a common feature of many extractive projects due to their potential economic benefits. For example, a community in proximity to a mine in Mali grew from 850 inhabitants to more than 10,000 inhabitants in the space of ten years. This kind of rapid development is rarely anticipated and urban/regional planning often cannot, or does not, keep pace, leading to an increase in the transmission of infectious diseases, such as HIV/AIDS, tuberculosis and malaria; inflation in the prices of essential local foods, with an impact on basic nutrition; demand and unplanned pressure on existing social and health care services; and pressure on existing water resources and sanitation infrastructures that lead to soil- and water-transmitted diseases. Lack of urban planning can also limit the ability to support basic amenities such as emergency access in the event of fires, as occurred in communities that mushroomed along the transport corridor of the Chad/Cameroon oil pipeline.

Migration of people can also introduce infectious diseases. A study conducted by the World Bank found that migrant miners in Swaziland and Lesotho were 15 per cent more likely to be HIV positive than the population as a whole, and women whose partner was a migrant mine worker tended to have an eight per cent higher chance of being HIV positive (Corno and de Walque, 2010).

Changes in social structures, values and norms due to an increase in disposable income – and the influx of people with different social and cultural values – can exacerbate social ills such as

alcoholism, crime, domestic and communal violence, and drug abuse. These can have a long-term adverse effect on local community mental health and well-being. A Tanzanian mining project exacerbated local social issues such that it precipitated a breakdown in law and order, and helped lead to general civil unrest. The influx of economic migrants, local underdevelopment and an increase in criminal activity undermined the ability of the project to operate effectively and securely, thus adversely affecting community health by affecting both local livelihoods and the safety of local communities (Barrick Gold Corporation, 2011).

Changes to the local landscape and ecosystem can create or increase the amount of ideal habitat for disease vectors, such as mosquitoes, filth flies and snails, and lead to an increase in malaria, cholera, schistosomiasis and other vector-borne diseases.

Contamination of the environment with hazardous substances, such as mercury, lead, arsenic and other toxic metals, can lead to acute and chronic poisoning. In Nigeria, lead poisoning linked to unregulated artisanal copper mining activity led to the deaths of more than 160 people, mainly children. The long-term environmental legacies of extractive projects can also have a significant impact on the health of communities that can take decades to manifest.

Physical resettlement can have adverse effects on existing social structures, and the physical and mental health of local communities. While economic displacement, associated with local people's inability to apply for jobs on extractive projects due to lack of skills, for example, often results in missed opportunities for harnessing some of the most direct and immediate positive health benefits from such projects, as well as generating local resentment and distrust.

The increase in project-related road traffic, with the associated increase in the risk of road-traffic-related injuries and deaths, air pollution, noise and motor vehicle-related soil and water pollution, and the potential employment- and spill-related exposure to chemical, biological and physical hazards, are other potential community health and safety risks. Negative community health impacts can also adversely affect project sustainability by making the investment climate less attractive, increasing the cost of doing business and posing serious reputational risks for companies. Government authorities, in turn, face the risk of inheriting large community health burdens left behind by poorly managed and unsustainable projects.

Translating opportunities into tangible benefits for communities, companies and governments

HIA is a key systematic approach to predicting the magnitude and significance of the possible health and well-being impacts, both positive and negative, of new plans and projects. HIAs use a range of structured and evaluated sources of qualitative and quantitative evidence that includes public and other stakeholders' perceptions and experiences as well as public health, epidemiological, toxicological and medical knowledge. HIAs are particularly concerned with the distribution of effects within a population – as different groups are likely to be affected in different ways – and therefore look at how health and social inequalities might be

reduced or widened by a proposed policy, programme or project.

HIAs provide a process through which an extractive project can design out or minimise the potentially negative impacts on community health and well-being by understanding the direct and indirect implications of project activities. It can help to engage local, regional and national health, social care and welfare services to jointly address existing community health problems, and anticipate and help to prevent potential future ones caused by a project. It also supports the project's stakeholder engagement process by helping to build trust, draw out community concerns and generate a dialogue with communities and public health officials about the best ways that the project can protect and improve the health of local communities. HIAs can also help to define the specific roles and responsibilities of key stakeholders in addressing community health and well-being, specifically pointing to what role the project can play in supporting the national or local health authority to fulfil its mandate of providing public health and health care services to local communities, thus contributing to health systems' strengthening and the progressive achievement of universal health coverage.

In many settings, community health and project worker health are inextricably linked with important implications for project workforce productivity and the social licence to operate. Hence, interventions that benefit workers' health can also benefit local communities. For example, in malaria-affected areas, project-supported public-private partnership programmes that provide malaria prevention and treatment to both local communities and project workers tend to be cost-effective for both worker productivity and non-project-linked local economic development. In Ghana, a mining company recognised malaria as a significant public health threat, with 20 per cent of its employees absent due to malaria at any one time. By developing a large integrated worker and community malaria programme, a 73 per cent reduction in the local incidence of malaria was achieved in two years.

Another project demonstrated a positive return on investment in a two-year period due to malaria control interventions (Knight, no date). Similarly, where HIV prevalence is high, companies often need to back local sexual and reproductive health services to support employee productivity and reduce ill health as well as reducing the impact on surrounding communities. A public-private partnership, jointly funded by a mining company and an international aid agency, established a high-functioning 'hub and spoke' network of health facilities linked to community organisations in the Democratic Republic of Congo (DRC). This network provided a broad continuum of treatment, community care and support services for people living with HIV (ICCM, 2013). The 2014–15 Ebola outbreak in West Africa is a reminder of the importance of a universal, comprehensive and functioning health care system for protecting workers, local communities around projects and the population as a whole.

The creation of meaningful and effective partnerships between national and local governments, civil society and other institutions, and extractive sector companies can maximise community health benefits through influencing the design and delivery of community-based environmental, social and health programmes. HIA is one important means of developing and supporting such partnerships and programmes.

Ensuring that the positive impacts of mining happen in an equitable way is often difficult. Children, women, the elderly, those with disabilities, those on low incomes and those from minority groups are often more vulnerable and can bear the greatest burden of adverse health impacts. They can often have low levels of education or literacy, such that they do not fully understand the implication of the proposed extractive project. These groups often have very little voice or power to influence a project. An HIA can help to identify these vulnerable groups, the impacts they are likely to face and what measures are likely to help reduce negative health impacts and enhance the positive health impacts among these groups.

Lastly, strategic HIAs can help to inform the development of extractive industry policies at national level. They can identify wider systemic and governance challenges that prevent local communities from benefiting from extractive projects. For example, income from extractive projects often flows directly to central government, bypassing local communities. To avoid this, the mining policy in the DRC states that 20 per cent of tax revenues must be allocated to support local infrastructure where resources are extracted. HIAs can help to identify and then be part of the process of evaluating similar strategic sector-wide measures.

The way forward

No extractive industry project can afford to ignore community health and well-being in the 21st century. The application of an HIA was considered a critical strategy for sustainable development in the Rio+20 conference (Winkler, 2013). The practice of using HIAs was noted as absent in lower- and middle-income countries despite the disproportionate risk related to their long-term development, including population growth, rapid urbanisation and climate change. It is thus essential that the benefits of HIA are recognised and the practice be integrated at the policy, programme and project levels, so that beneficial and adverse health impacts are recognised and effectively, and sustainably, addressed. As calls for the use of HIAs to embed community health in the post-2015 development agenda emerge, the largely untapped potential of HIAs needs to be recognised and taken advantage of to meet Africa's Sustainable Development Goals.

However, to raise the profile and importance of HIAs, capacity will need to be developed across key stakeholders in Africa, particularly the proponents championing extractive projects, governments seeking sustainable economic development, and public health and health care systems.

Recognising the potential impacts on community health and opportunities, and including community and public health management as part of a project's environmental and social management plans, can support proactive project risk management, promote sustainable project development, support the progressive realisation of universal health coverage and help to achieve the post-2015 development agenda in Africa. By creating a project framework for health, safety, security and environment that systematically considers community health, projects are likely to be developed in a more sustainable manner, and affected communities and vulnerable groups more likely to benefit from the positives and be better able to cope with any negatives. Lastly, HIAs provide companies, governments, non-governmental organisations and communities with a better, more explicit understanding of the

potential trade-offs between community health and well-being, and the other economic, environmental and social objectives of a project, as well as providing a more sustainable way of uniting these important objectives.

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Non-communicable diseases and disabilities



The Commonwealth

Linking productive ageing to NCD prevention and control

George Alleyne

Robert Butler introduced the concept of productive ageing in 1983 and argued that mobilisation of the productive potential of the elders of society was of fundamental importance to human welfare (Butler and Gleason, 1985). It is by now axiomatic that good health is important for all forms of productivity and it is therefore important to note that all disease may contribute to disability and thereby reduce productivity, which does not only refer to employment as there are clearly other spheres in which the elderly may make a meaningful contribution to society. Non-communicable diseases (NCDs) are increasing in prevalence and are therefore likely to affect productivity. However, mere ill health or frailty, Butler argued, need not preclude productivity in later life, as opportunity to remain productive continues within an individual's remaining capacity to create meaning and to grow developmentally. The barriers to productive ageing so conceived include ageism or other forms of discrimination, economic conditions, institutional capabilities and social security frameworks (Holmerova et al., 2014). Butler's is a very generous view of productivity and the position taken here is that disability due to impairment of physical and mental capacity as a result of NCDs must affect productivity in one form or another.

Ageing figures in the global political agenda and the landmark Madrid International Plan of Action on Ageing of 2002 (UN, 2002) had governments expressing their commitment to act on three priority directions for action: older persons and development, advancing health and well-being into old age, and ensuring enabling and supportive environments (Robinson et al., 2006; see Box: 'Three priorities for action'). All of these have relevance for the relationship between productive ageing and NCDs.

There are several major links between productive ageing and NCDs, and many of these were elaborated in the recent Emerging Markets Symposium on ageing in emerging markets, held in Oxford in January 2015, where it was emphasised that humankind is getting older, but increasing years do not necessarily equate with senescence.

The world is ageing

It is estimated that by 2050 the persons over the age of 60 will outnumber those under 15 globally. Perhaps old age and ageing should be differentiated (see Box: 'Human ageing'). However, it is almost inevitable that there is more disability as populations age and there is an increase in the length of time lived with disability with consequent reduced productivity. The loss of productivity may be more marked in developing countries, where the social conditions that might modulate the impact of disability are deficient or absent.

The world's disease pattern is changing

The world's epidemiological profile is changing and the diseases due to infections and pestilences are being replaced by chronic NCDs (WHO, 2014). Almost every chronic condition is more prevalent in the elderly, but the four that contribute 82 per cent to mortality from NCDs are cardiovascular disease, cancer, chronic respiratory disease and diabetes.

As populations age, NCDs will represent an increased proportion of all deaths. Thus, in lower-income countries, because of a different population age structure, it is possible to underestimate the size of the NCD problem. It has been pointed out that 'future population growth and population ageing will drive large increases in the burden of mortality due to NCDs even if no changes occur in the age-specific risks of dying from an NCD' (UN, 2012).

Of the 56 million deaths worldwide in 2012, 38 million were caused by NCDs, with 37 per cent of these due to cardiovascular disease, 27 per cent to malignant neoplasm, eight per cent to respiratory disease and four per cent to diabetes mellitus. NCDs are no longer the unique province of the so-called developed countries as three-quarters of deaths from them occur in low- and middle-income countries (LMICs; WHO, 2014). Three-quarters of deaths from cardiovascular disease and diabetes, and nearly 90 per cent of deaths from chronic respiratory distress occur in LMICs. While the poorer countries are indeed showing increases in death rates from NCDs, a division between rich and poor countries may be fictitious as a majority of the world's poor live in LMICs.

Mental health contributes significantly to disability throughout the life course and especially in later years. More than 20 per cent of

Three priorities for action

Priority direction one for action strives to integrate global ageing within the larger context of development. The overall goal is to ensure that older persons are full participants in the development process and also its beneficiaries.

Priority direction two emphasises that the health of the population is vital to development and that, for the individual, good health is the most important asset and human right. To reach old age in good health requires the combined efforts of government, civil society and the individual.

Priority direction three aims to ensure enabling and supportive environments. It promotes positive perceptions of ageing and positive, realistic images of older persons to influence public values relating to social, cultural and economic exchange between generations.

adults aged 60 and over suffer from a mental or neurological disorder, and 6.6 per cent of all disability among over 60s is attributed to neurological and mental disorders (Murray et al., 2012). The most common neuropsychiatric disorders in this age group are dementia and depression.

The number of people with dementia will continue to grow, particularly among those older than 80 years. The total number of people with dementia worldwide in 2010 is estimated at 35.6 million and this figure is projected to nearly double every 20 years, with much of the increase taking place in developing countries (Prince et al., 2013); 50–75 per cent of dementia will be due to Alzheimer's disease.

These diseases are now high on the international political agenda because they represent a major development issue as well as social and economic challenges for all countries. NCDs contribute 74.6 per cent of all the years lived with disability, with the diseases mentioned here contributing 45 per cent of that number (Vos et al., 2012), and represent a major factor in early retirement from formal work (Handa and Neitzert, 1998). The World Health Organization (WHO) has adopted the Global Action Plan (2013–20) for their prevention and control, and a global monitoring framework, including nine global targets and 25 indicators. The World Health Assembly has adopted the overarching target of a 25 per cent reduction in premature mortality from NCDs by the year 2025 (WHO, 2013).

It is never too early or too late

It is critical to address the problems of NCDs throughout the life course as the problems of adulthood and ageing may have their genesis at conception or even before. There are biological as well as behavioural aspects that impinge on early childhood development and predispose the organism to develop NCDs later in life (Darnnton-Hill et al., 2004). Early epigenetic changes may programme the individual to develop one or other of the NCDs (Godfrey et al., 2010): maternal nutrition plays a role in the propensity of children to become obese, which is a major factor in the development of adult chronic disease; the habit of smoking tends to begin in adolescence and the likelihood of continuing to smoke increases if the habit commences after adolescence.

Prevention must take place throughout the life course and emphasis should continue to be placed on the important risk factors – tobacco, alcohol, improper diet and lack of physical activity.

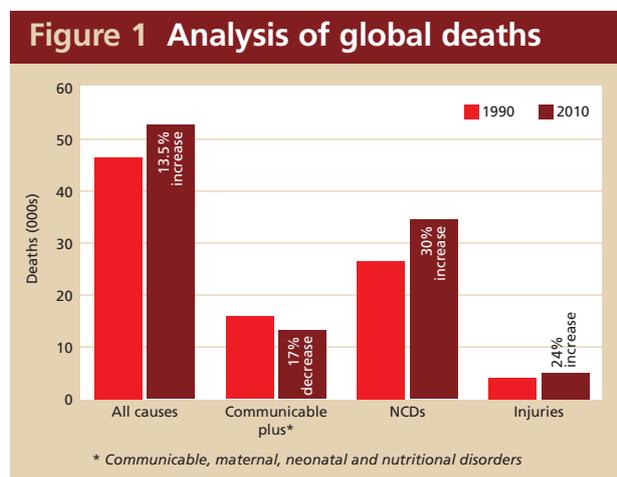
By addressing these risk factors it is indeed possible to reduce premature mortality and reach the goal of a 25 per cent reduction in this by 2025. Serious doubts have been raised about the propriety of this approach in the sense that focusing on persons younger than 70 years of age is an example of age discrimination (Lloyd-Sherlock et al., 2012). Much of the emphasis is on premature deaths, i.e. below the age of 70 years, where 42 per cent of NCD deaths occur.

While primary prevention of NCDs depends to a large extent on modifying individual behaviour and promoting a favorable and enabling environment, secondary prevention, treatment and control depend heavily on health systems. The WHO has estimated that up to two-thirds of premature deaths from NCDs are linked to exposure to risk factors, but up to half are linked to weak health systems. The ability of a health system to incorporate NCDs is especially critical with regard to the elderly, as with increasing age there is increasing probability of comorbidities (Fortin et al., 2005).

Health systems are critical

Universal health coverage (UHC), which would provide effective health services efficiently while ensuring financial protection, implies the existence of efficient health systems. However, there is a third aspect that may be very significant for the elderly: the satisfaction of knowing that there are services available when needed – health security – must be factored into UHC and, given that elderly people tend to have lower incomes, this must be of special significance to that group.

Nolte and McKee (2008) propose that the essential elements for an effective response to chronic disease are sustained financing, skilled and motivated health professionals, supportive information systems



Human ageing

There is more to old age than ageing. Not everything that differentiates older from younger people is due to ageing. Older people may be different not because they have changed over their lifetimes, but because they were always different, having been born in a different world. Ageing, in the sense of senescence rather than maturation, is characterised by a progressive lack of adaptability of an individual organism as time passes. Sooner or later the organism encounters a situation it cannot be with and it dies. A rising age-associated risk of death is therefore the hallmark of senescence. The chief challenge of ageing facing the individual and the policy-maker is not the rise in risk of death, but the impairments in physical and mental functions that can occur with increasing age. Impairments do not necessarily cause disability. Disability arises when there is an ecological gap between what an individual needs or (reasonably and socially appropriate) wants to do, and what her environments require for it to be done.

– Sir John Grimley-Evans, EMS Symposium Ageing in Emerging Markets, Oxford, January 2015

Health systems: Priorities for investment

1. Multisectoral platforms based on national AIDS commissions and country co-ordinating mechanisms create synergies with NCDs at no additional cost
2. Integrated monitoring and evaluation systems, especially in LMICs benefiting from large investments for HIV and tuberculosis programmes. Integrated information systems bring together individual-level socioeconomic, behavioral, clinical and service utilisation data that is crucial in building individual risk profiles and establishing targeted responses
3. Structural integration of service delivery at the community and primary care levels can establish a single point of entry to manage multiple diseases including NCDs
4. Procurement and supply chain management systems are crucial in ensuring timely forecasting purchasing and distribution of health products, especially for chronic illnesses
5. Financing for UHC, and expanding health insurance coverage for the poor to improve access to health services, including those for NCDs
6. Demand generation and treatment management through community-based approaches. Such approaches, established mainly through HIV-related investments, offer powerful platforms that combine risk identification, demand, mobilisation, and management of NCDs and multi-morbidity

and the creation of systems to enable patients to self-manage effectively. With earlier diagnosis and better treatment, HIV/AIDS is now becoming a chronic disease and there must be integrated systems responsive to all chronic conditions, such as tuberculosis and HIV, as well as the NCDs. This represents a positive approach, especially for poor countries with limited resources. In a recent analysis, Atun et al. (2014) propose five areas in which synergies could be created for treating NCDs (see Box: 'Health systems: Priorities for investment').

Conclusion

With increasing age and susceptibility to NCDs, which is also due to increased exposure to predisposing risk factors, there is also an increase in disability, which is the key linking factor responsible for reduction in productivity in the elderly and, therefore, productive ageing. Disability-induced impairment to productivity may be due to the ageing process, NCDs and the combination of them both. The reduction in productivity is made worse in the case of the LMICs by the inability to produce and adapt the essential services and systems necessary to prevent and treat NCDs. The extent of NCD-induced disability may be modulated by the social and physical environment as well as by appropriate health systems.

The prevention of NCDs must take place throughout the life course. Special attention must be paid to adapting and reinforcing the health systems to seek synergies of approach to NCDs and other chronic conditions, and to deal with their comorbidities, which are inevitable in elderly individuals with NCDs.

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Ageing and mental health: Addressing the impact on health care

Chee Ng, Brigid Ryan and Edmond Chiu

Commonwealth health ministers have supported the principles of universal health coverage (UHC) as a Sustainable Development Goal for health on the post-2015 agenda. UHC includes an overarching policy framework, with public health, primary health care and community services as the cross-cutting structures for all health and health-related services. Increasing commitment to UHC is crucial to increasing healthy life expectancy, eradicating poverty, promoting equity and achieving sustainable development (Singh, 2014).

Despite the growing burden of mental disorders globally, health systems have not yet adequately responded to this universal challenge, thus leaving a huge gap between the need for treatment and its provision (Ng, 2013). As rights and equity sit at the centre of UHC strategy, adequately addressing the needs of those with mental health problems, who are among the most vulnerable and disadvantaged groups of people, is both necessary and long overdue. This would require a focus on unifying a somewhat fragmented health agenda and mainstreaming mental health into all health and social sector policies (WHO, 2013).

Further, UHC advocates for a life-course approach from primary prevention to long-term care and end-stage conditions. The commitment to UHC and the Commonwealth's focus on 'healthy ageing' this year thus creates a window of opportunity for promoting mentally healthy ageing and mental health care for the older population, and in particular to explore future mental health needs of older persons in the rapidly developing Asia-Pacific region.

Ageing and mental health patterns

Globally, the number of people aged 60 years and over is projected to increase from the current 810 million to more than two billion in 2050 (WHO, 2011). This increase will mainly occur in low- and middle-income countries (LMICs), some of which are Commonwealth member states. In particular, the number of older persons in the Asia-Pacific region is estimated to triple between 2010 and 2015, going from 415 million (about ten per cent of the population) to 1.25 billion (25 per cent).

As the region's fastest growing population group, this demographic shift is driven by major social and health achievements, with increased life expectancy, lowered infant mortality, declining fertility, control of communicable diseases and general health-related gains (Chomik and Piggott, 2013). Such population ageing has profound and far-reaching social, economic and health-related implications for all countries, especially those in the Asia-Pacific region.

The rise in the number of vulnerable older persons increases the overall incidence and prevalence of non-communicable diseases (NCDs), thereby accelerating the general shift from acute infectious and deficiency diseases – common in developing countries – to

chronic NCDs – characteristic of modernisation and economically advanced countries (Wahdan, 1996). This includes mental disorders. For example, the incidence of dementia in developed countries was forecast to increase by 100 per cent between 2001 and 2040, while the same figure is expected to increase by more than 300 per cent in India, China, and Asian and Western Pacific countries (Ferri et al., 2005).

The 2010 Global Burden of Disease study (Murray et al., 2013) has identified that some 20 per cent of adults aged 60 years and over suffer from a mental or neurological disorder; and 6.6 per cent of all disabilities among people over the age of 60 can be attributed to mental and neurological disorders. The most common of these disorders are dementia and depression, both of which are associated with increasing health care utilisation and costs.

An estimated 35.6 million people lived with dementia worldwide in 2010, with numbers expected to almost double every 20 years, to 65.7 million in 2030 and to 115.4 million in 2050 (Prince et al., 2013). The majority of these people will live in LMICs, which are less prepared to respond to this emerging public health crisis. The mounting financial and social impact of this complex disorder is a concern for nations in the Asia-Pacific region, in particular how policies and implementation programmes can be strengthened to enhance dementia care in order to improve the social well-being and quality of life of those living with dementia – and their caregivers (WHO, 2011).

About seven per cent of the general older population have unipolar depression, which accounts for 1.6 per cent of total disability-adjusted life years (DALYs) among 60-year-olds (Murray et al., 2013). Depression in late life is related to reduction of functioning, mental suffering, worsening of physical health and illnesses, and early death through acute and chronic diseases, as well as by suicide. Of note, about a quarter of deaths from suicide are among those aged 60 years and above. Dementia and depression among older persons have been identified as significant public health challenges due to associated under-recognition; a large treatment gap; stigma and social exclusion; the economic impact on caregivers and communities; and the high global prevalence (WHO, 2012).

Importantly, data remains sparse and largely unavailable in the Asia-Pacific region. Many Commonwealth countries do not have vital information to plan and implement appropriate intervention strategies and models of care or to chart effective assessment, treatment and prevention programmes. Studies are required to better understand how older people living with mental illness achieve and maintain wellness, and the impact of living with mental illness. Despite this gap, there is valuable information available through prevalence studies conducted in Australia,

Canada and Europe, which includes data on the proportion of older adults with impairment, need for service and current use of services (Blazer et al., 2007).

Mental health risk factors in ageing

Multiple physical, social, psychological and biological factors combine to determine the level of mental well-being in a person. The physical health conditions that accompany advancing years further complicate the experience and presentation of mental disorders, which are frequently misdiagnosed as physical disorders or treated as medically unexplained symptoms. There is a bidirectional impact between physical disorders and mental disorders. For instance, people with heart disease often have higher levels of depression, and untreated depression in older persons with heart disease contributes to poorer outcome. Medication for treating mental illness can also have an unwanted effect on physical health and, vice-versa, treatment for physical disorders can trigger mental health conditions.

For the older person, in addition to the usual social determinants of health, the loss of mobility and independence, together with loneliness, isolation, adverse life events and the negative impacts of economic disadvantage after retirement from gainful employment, combine to increase the risk of mental disorder. The psychological distress from bereavement, and combined social and personal changes are potent risk factors for the development of mental disorders in older persons, even in those of previously robust constitution. In the Asia-Pacific region, traditional living arrangements and family roles are rapidly changing. Risk for depression can increase when traditional and cultural supports and coping structures, or familiar environments, are removed.

Understanding social changes and social isolation is an important part of healthy ageing policy frameworks. Studies have shown that social isolation can increase the risk of poor mental health and suicide, while having strong human bonds can be protective against it (Stephens et al., 2013). As extended family networks wane and more modern trends in marriage, family and individualism evolve, the fastest growing segment of the population will be increasingly dependent on public or private institutions for support (Menon and Melendez-Nakamura, 2009).

Factors such as globalisation, economic and technology advances also have an important impact on the mental health of older people and provision of services. For example, rising incomes, along with public and private pension systems, have allowed people to retire based on their age, rather than any health-related problem (WHO, 2011). Loss of relevance and social identity, lack of affordability of appropriate health services, and inadequate financial and other services may occur within largely invisible, deeply entrenched and often accepted forms of ageism within communities in our region.

Access to comprehensive social protection that enables people to cope with life and health risks is not available to 80 per cent of the global population (ibid). Specifically, there can be a variety of barriers to recognising mental health issues in older persons, who are likely service users, and providing the appropriate social support services. These barriers may include lack of recognition of psychological distress, limited training and poor working conditions (Davison et al., 2009). Vulnerability to neglect and abuse, and lack

of access to health care further aggravate the older person's sense of well-being, control and autonomy, contributing to the development and continuation of mental distress and disorder.

Key approaches, treatment and care strategies

Effective treatments for mental disorders in LMICs in the Commonwealth are available (Ng, 2013). However, a specific treatment for dementia is yet to be developed and, for late-life depression, treatment is complex and less accessible in LMICs, where generally newer psychotropic medications with fewer side effects may not be readily available. Interventions may need to prioritise early diagnosis so as to promote timely and optimal physical and psychological management. Support for older people with mental health problems and their carers, families and communities should be provided. As well as promoting self-management and self-determination, preventive interventions should include education on chronic illness, behavioural activation, cognitive restructuring, problem-solving skills training, group support and life review (Fiske et al., 2009).

Accessible and affordable community-level primary care for older persons is essential. Planning for long-term care in the community should be parallel with acute care. The Technical Consensus Statement on the Organisation of Care in Psychiatry of the Elderly, jointly published by the World Health Organization (WHO) and the World Psychiatric Association Section in Psychiatry of the Elderly (WHO, 2007), sets out principles to guide the development and implementation of care for older persons with mental disorders. It is also important to enhance the health workforce capacity by addressing the quantity and skill mix of workers, enhancing their

Mental health strategies

- Training of health professionals in primary care and in the early identification and intervention of mental disorders in older people
- Providing timely and accessible treatment for age-associated diseases occurring in late life, especially mental and neurological disorders as well as those relating to substance use
- General and mental health services taking a holistic approach to supporting older people in valuing their life experiences and existing strengths to increase their levels of physical, mental and social well-being
- Developing age-specific and sustainable health care and social policies for prevention, health promotion, early detection, early intervention and long-term care for older persons
- Creating an 'age-friendly', non-discriminating society that values the role older people play in society and encouraging meaningful engagement in the community
- Combating ageism and discrimination with consistent life-course approaches to programmes of de-stigmatisation of mental disorders
- Restoring the value of the past and present positive contributions of older citizens to society

understanding of the link between healthy behaviours across the life course and good health in older age, and upgrading their skills and capacity to care for older people who are frail, ill or disabled (WHO, 2014; see Box: 'Mental health strategies').

Active and positive ageing are essential to the consideration of the mental and physical health of the elderly, and the cornerstone for health promotion and prevention (see Box: 'Active ageing'). Active ageing is the process of optimising opportunities for physical, mental and social health, participation and security in order to enhance quality of life (WHO, 2002).

Many Commonwealth countries are beginning to develop an adequate health response to the mental health needs of rapidly ageing populations and aged mental health services are now well established in countries such as the UK, Canada and Australia, with emerging interest in the subspecialty and recognition of the need for service providers to acquire expertise in the area (Ames et al., 2010). There is evidence that mental health is being more strategically prioritised in many national health plans and, coupled with a strategic priority of healthy ageing, this represents increased opportunities for action. The strategic directions of UHC form a strong framework to improve our understanding and response to regional socioeconomic implications of population ageing and older persons' support systems in relation to mental health.

Conclusion

With rapidly ageing populations, it is imperative that Commonwealth nations continue to develop policies that support the prevention, early treatment and long-term care of mental health problems in older persons. Identifying the multiple risk factors that determine mental disorders in older persons is a key strategy. Nations need to develop a prevention focus, built around a co-ordinated, multi-sector and whole-of-government approach to address this growing health burden in the post-2015 agenda. Universal access to affordable and quality health care services needs to be sensitive to the involvement of multiple stakeholders and the close interaction between health care and the socioeconomic and cultural factors in ageing and good health. Building the mental health component to the Commonwealth healthy ageing agenda is an opportunity to maximise positive engagement and dialogue, and to promote collaborative solutions that strengthen mental health across the lifespan.

Active ageing

Active ageing includes reaching the following targets:

- Individuals and families preparing for old age and adopting positive health practices for a long life with optimum health
- Social policy making health choices easily accessible, while recognising, encouraging and rewarding participation of older people in work, education, learning, volunteering and family life
- Businesses engaging in partnership with older persons in developing innovative technology, products and services for older persons, as well as developing work opportunities for them

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Dementia in low- and middle-income countries: The case for community care

Caroline Kim and Soumitra Pathare

Dementia, of which Alzheimer's disease is the most common form, is an increasingly important global public health issue that demands attention. Root causes of most cases of dementia are unknown and early stages may go undetected. However, in the late stages people can have severe memory loss, as well as loss of reasoning, speech and other cognitive functions. In 2010 an estimated 35.6 million people worldwide had dementia (Prince et al., 2013), with 58 per cent of these living in low- and middle-income countries (LMICs). While the prevalence of dementia is expected to double every 20 years, rates of increase are not uniform. Some LMICs, including India, are predicted to have rates of increase as high as 300 per cent (Ferri et al., 2005), and dementia is the most important independent contributor to disability for elderly people in LMICs (Sousa et al., 2009).

Although dementia is a deeply personal condition, it also has high family and societal impacts. It contributes to disability and dependency, and is associated with caregiver strain and stress. Unfortunately, medical assistance and community services for dementia are not always available, especially in LMICs. It is imperative, therefore, for LMICs to devise policies and strategies to meet future need. A variety of approaches are necessary to ensure good quality and universal health coverage for persons with dementia (PWDs); the challenge is for governments to come up with systems that are evidence-based, accessible, delivered effectively, culturally appropriate and cost-effective.

Implications for universal health coverage

As the population ages and the elderly lose their ability to live independently, there is an increased need for long-term care facilities, with significant associated cost. However, in many LMICs there is no existing infrastructure, or such facilities exist only in the private sector and are largely unaffordable. PWDs live, instead, with family members. This informal care 'system' effectively ensures that the elderly do not become wards of the state, but caregivers themselves often shoulder the burden without any support or relief, and the strain placed on them is higher than that experienced by caregivers of persons with only depression or with no diagnosis (Dias et al., 2004). Changing the focus from expensive acute-care facilities to general health promotion, disease prevention and disability management can both take advantage of and provide support to these existing human resources – informal caregivers.

When caregiver burden and stress is high there is a decreased quality of life for the PWD, the caregiver and other household members. Furthermore, the care received may not be informed by current medical knowledge – in many cases, family members are unaware

that behavioural or psychological problems associated with dementia have a medical basis. For home care to be a part of a universal health care system, it is paramount to provide regular education and assistance for caregivers. Services and programmes for caregivers, including education about dementia and skills training, enhance the ability of family members to care for their loved ones, increase the overall health of the PWDs and reduce demand for institutional care. Education, training and support for caregivers and family members are therefore key to managing dementia.

In many LMICs there is a dearth of professionals trained in the area of dementia. This may be due to a lack of specialists, a lack of knowledge among general health professionals or a lack of adequately trained non-medical staff. Front-line health workers at primary care facilities and community-based care centres will need to be trained to recognise and work with PWDs and their caregivers; secondary care facilities will likewise require training for staff members. A small number of specialists will need to be trained to provide supervisory support to team members and direct patient care for acute cases.

The sustainable reorganisation of services for PWDs and their caregivers will need new government policy and plans in order to succeed. Some pilot projects have already been conducted (see below), but more research will be necessary so that plans can be scaled up appropriately.

Early interventions for prevention

Although progression of dementia can be slowed and symptoms can be managed, there is no effective long-term treatment. One area of focus must therefore be prevention.

Three points of intervention

- 1. Prevention.** Measures can be taken to prevent the onset of dementia and reduce the rate of dementia in the population
- 2. Reduction.** Medical and therapeutic interventions, as well as community-based rehabilitation, can slow the progression of dementia and the onset of disability, and mitigate the effects of disability on daily activities and social participation, so that PWDs are able to care for themselves for longer periods of time and continue to live independently
- 3. Management.** Forms of assistance can include: outreach services, respite care, disability pensions, access to general health care, health information and education (including coping skills and use of physical or memory aids), and short- or long-term care and support. When provided, these can increase the quality of life of the PWDs and their caregivers

Research shows that education, literacy, verbal fluency, social class, socio-economic status, financial stress and motor sequencing are variables that effect the onset of dementia (the 'cognitive reserve hypothesis'; Lund et al., 2010; Scazufca et al., 2008). Associations have also been found between dementia and poor nutrition, food insecurity, place of birth (rural vs urban) and early life brain development. Older adults exposed to five or six unfavourable factors are more than seven times more likely to develop dementia than those with no risk factors (Scazufca et al., 2008), suggesting a cumulative effect; there is therefore a strong incentive to reduce such risk factors. Smoking, hypertension, high cholesterol and diabetes are also associated with an increased risk of dementia, particularly non-Alzheimer's dementia (Whitmer et al., 2005).

Preventative measures must start early and social policies are key. Recent research, done in middle-income countries, has confirmed the protective effect of education and literacy against dementia (Prince et al., 2012). One strategy, then, is to increase literacy and education to reap future health benefits. Pre- and post-natal programmes for young children and mothers targeting nutrition and developmental activities can also be augmented with the goal of dementia prevention in mind. Food security programmes can be re-assessed in the light of health and ageing. Lifestyle factors, such as a healthy diet, moderate alcohol intake, non-smoking and regular physical activity, also appear to be protective (Akinoyemi et al., 2013; Etgen et al., 2011) and should be promoted not only throughout the life course but also with programmes directed at the elderly, with the advantage of protecting not only from dementia onset, but also other long-term health problems. Finally, steps can be taken to ensure that rural areas, where there is highest risk, benefit from such programmes on an equal basis with urban areas.

Community-based services and education for caregivers

In the majority of LMICs, specialist resources are scarce or simply unavailable. Trained non-medical workers can provide culturally appropriate and diverse services at a low cost, and with the supervision and guidance of a specialist whenever medicalised interventions are necessary. This is precisely what was done in Goa, India, with care recipients showing clear benefits (Dias and Patel, 2009).

In the Goa study, each geographical area was treated by a 'community team' comprised of two home care advisors – lay workers with no formal medical training. These were trained in an intensive one-week session that included learning about listening, counselling, stress management and health advice for common complaints. Their tasks included basic education about dementia and common behavioural issues; providing information about management of dementia; general support to the caregiver, including assistance with daily activities where appropriate; providing referrals to doctors or psychiatrists where warranted; networking between families for peer support; and advising about available government social support schemes. Minimum visit frequency was once fortnightly, over a period of six months. A lay counsellor met with each home care advisor also fortnightly, to provide support. Only one specialist – a psychiatrist – was required, on a part-time basis, to confirm diagnosis, meet with the homecare

advisors twice monthly and have follow-up visits with the PWD where medicalised treatment was deemed necessary.

The key objectives of the programme were to improve the family and caregiver knowledge base, to provide emotional and other support, to maximise caregiving resources and to improve caregiving skills, thereby increasing the quality of life and care for both the PWD and the caregiver. This intervention also resulted in reduced caregiver burden, as well as less mental stress and distress.

Another study performed in the Netherlands found that home-based short-term (ten hours over five weeks) interventions by an occupational therapist were not only cost effective, but yielded significant and clinically relevant improvements for the PWDs (Graff et al., 2008). The occupational therapist trained caregivers in problem solving, coping, supervision and strategies to assist the PWDs to sustain personal autonomy and social participation. PWDs, in turn, were trained in compensation skills and the use of aids, and in how to optimise individual skills to improve their ability to conduct daily activities. Both were counselled on how to modify the home and environment.

One key lesson from both studies is the importance of enhancing existing resources – such as family members – through education about dementia and stress relief/coping strategies. Another is that providing PWDs with knowledge of how to improve their own ability to complete daily tasks as much as possible has a clinically significant positive effect. Finally, educating the greater community about dementia and creating networks of caregivers also assisted PWDs and their families.

Conclusions and recommendations

Focus on prevention

Countries can focus on preventing dementia by creating policies and programmes that reduce societal risk factors, such as poor early childhood development, poor nutrition and food insecurity, while increasing societal protective factors against dementia, such as rates of education and literacy, by providing educational opportunities to all and promoting healthy lifestyle choices, such as healthy eating, moderate alcohol intake, non-smoking and regular physical activity.

Focus on reducing the burden of disabilities

Policies and programmes should also provide rehabilitation or therapeutic services in the community and the home, reducing the social isolation of PWDs. Support must be given to informal caregivers, such as family members, through respite care programmes, caregiving pension credits or monies, access to subsidies, training and home-based assistance; to PWDs by providing social pensions for the elderly and access to formal homecare and outreach services; and non-governmental and community-based organisations that provide assistance to PWDs and caregivers. The burden of disabilities can also be reduced by ensuring the availability of essential drugs, where necessary, for treatment of dementia and associated behaviours and symptoms.

Focus on education and training

Education and training must be provided for informal caregivers on how to care for PWDs, manage behavioural or psychological

symptoms of dementia and manage stress. The public must similarly be educated in order to lower stigma and to increase health care seeking by those affected. Non-physician ‘clinicians’ should be trained to provide community-based services with the supervision of medical professionals; and physicians should assume training, supervision and quality-control roles for members of the multi-disciplinary community and home outreach teams. Training programmes and resource centres that increase the number of medical professionals with specialised knowledge of dementia must also be created or supported.

These measures provide a comprehensive approach to long-term care that will require a multi-pronged approach. Co-operation between caregivers, health services, multiple areas and levels of government, civil society and not-for-profit organisations will be necessary. Approaches must be evidence based. Programmes and policies will need to be changed, and legislative changes may also be necessary. Dementia is no longer an issue for high-income countries alone; LMICs need to prepare now for the coming decades when need for care will increase exponentially.

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Disability-inclusive development in the Pacific: A regional approach

Pacific Islands Forum Secretariat

Disability in Pacific island countries (PICs) has generally been an unseen issue. While there is relatively little accurate official data on the prevalence of disability, the World Health Organization (WHO) and World Bank estimate that, globally, around 15 per cent of any adult population is disabled. There is also the view that numbers of people with disabilities are increasing due to high rates of diabetes-related amputations and blindness; increasing traffic and industrial accidents; and the ageing of populations.

Disability has landed itself at the heart of regional social policy of the Pacific Islands Forum Secretariat (PIFS), because it is a crosscutting issue that limits access to education, employment, recreation, health and other social services, leading to economic and social exclusion. Pacific Islands Forum Leaders (PIFL) reaffirmed the need for more attention to be directed to the region's most disadvantaged group – people with disabilities – who are among the poorest and most vulnerable in the world. People with a

disability face many barriers to full participation in society, and this is no exception in the Pacific.

Following the decisions of Pacific island leaders, Pacific Islands Forum ministers responsible for disability met in Cook Islands in October 2009 to consider and agree on the Pacific Regional Strategy on Disability (PRSD). The PIFL endorsed the PRSD in August 2010, promoting an inclusive, barrier-free and rights-based society for people with disabilities, which embraces the diversity of all Pacific people. Leaders supported its objectives to improve the lives and status of people with disabilities in the Pacific region, and affirmed the need for disability-inclusive development in all government programmes in Pacific Islands Forum countries to address the needs of these people. PIFL endorsed the PRSD in recognition that the strategy 'reflects the reality and needs of the Pacific and its unique social, economic and geographic context; represents a common agreement on how to proceed and a means



Tom Pery / Commonwealth Secretariat

Disability is at the heart of social policy for the Pacific Islands Forum Secretariat as it limits access to education, employment and health care causing economic and social exclusion

for sharing experiences and practices. Leaders agreed that the Strategy provides effective guidance to Forum members in advancing their work on disability issues' (PIFL, 2010: p. 7).

The PRSD identifies specific areas where a regional co-operative approach will strengthen national action. The Convention on the Rights of Persons with Disabilities (CRPD) is the foundation of the PRSD. The regional strategy facilitates and supports a Pacific approach to progress rights- and disability-inclusive development in Forum Island Countries (FICs) by providing relevant and achievable guidelines to support national efforts to advance disability issues.

A partnership between the government of Australia and the PIFS was agreed to in 2011 and provided three-year funding (2011–14) of approximately FJ\$4 million to implement the strategy.

A mid-term review (MTR) took place between October 2013 and January 2014. The outcomes of the MTR provided information about progress to date on the implementation of the PRSD; assessed the role of the PIFS as designer and co-ordinator; and assessed progress made by countries in implementing the strategy.

Key review findings

The key review findings are divided into six thematic areas.

Strengthen political leadership and enabling environment

There has been strong engagement with political leadership of national governments, which in all PICs, to varying degrees, has led to positive changes in the commitment made to disability in national policies, plans and international human rights frameworks and the CRPD. There has been less progress in commitment to resources to implement policies and plans, and the engagement with leadership of regional organisations has been limited.

Recognition and protection of human rights of persons with disabilities

The presence of the PRSD has progressed the process for certain PICs to prepare, and in some cases ratify, the CRPD and their commitments to other international human rights conventions and reporting mechanisms. Technical assistance of PIFS with other development partners has assisted in the development of national plans and policies, as well as legislative and policy reviews, to ensure compliance with the CRPD.

Strengthen partnerships, collaboration and co-ordination

PIFS has played a strong and important role in facilitating collaboration and co-ordination between a growing number of participating and contributing stakeholder organisations. There is strong evidence of positive and effective co-ordination at national and regional levels, and disabled people's organisations (DPOs) are part of the collaborative efforts and are effectively representing their members. Due to the increasing level of activity and engagement there is need to continue to strengthen co-ordination and ensure there is clarity of the roles and responsibilities of contributing partners. To strengthen broader commitment to disability rights and inclusive development, engagement with a wider range of relevant partnerships needs to be facilitated.

Disability-inclusive development

The PRSD has supported increased awareness, understanding and commitment (through policy and planning by governments) to disability-inclusive development. There has been relatively little investment and action by Pacific governments to implement disability-inclusive development, and understanding of and commitment to mainstreaming disability issues more widely across the whole of government remains weak.

Enhance the central role of persons with disabilities

DPOs are accessing and benefiting from increased resources – mainly from development partners rather than governments – and this is helping them to more strongly advocate and effectively represent their members' interests. DPOs are contributing at national, regional and international forums and meetings, and are part of consultation, advisory and decision-making processes. National and regional DPOs are providing a critical and important role to the extent that there is some concern that some governments are deferring to DPOs rather than fulfilling what should be their own responsibilities for promoting and protecting the rights of people with disabilities.

Mobilisation of resources

Overall, there has been significant increase in the Pacific region of financial and technical resources for disability rights and inclusion. The majority of the increase and the current investment made in disability in the region are from development partners and donor funds (primarily the Australian government). Very few PICs have increased the allocation of resources from their national budgets to support disability policies or programmes.

Progress made in countries

Based on the data available, all countries have made some progress or were on track in at least 66 per cent of the 32 indicators of progress set for the PRSD. Four countries (Cook Islands at 84 per cent, Palau at 63 per cent, Nauru at 53 per cent and Samoa at 50 per cent) are rated as being on track or having achieved at least half of the 32 indicators of progress. Four countries had more than 25 per cent of the indicators rated as off track or no progress (Tuvalu at 34 per cent, Federated States of Micronesia at 28 per cent, Tonga at 25 per cent and Republic of Marshall Islands at 25 per cent). No countries had 50 per cent or more of the indicators rated as off track or no progress.

More detailed data for four countries – Samoa, Kiribati, Cook Islands and Palau – was reviewed based on their self-assessment of progress. Although there is economic, social and political diversity between these countries, and their commitment and capacity to disability rights and inclusion varies, certain common strengths and areas of progress were found. These were:

- Having committed and active DPOs that are strong advocates on disability rights
- The government engaging with and involving DPOs in policy development, and in ratification and implementing obligations of the CRPD
- Either having ratified the CRPD or having made positive steps in preparing to ratify by developing a national policy, completing policy compliance and legislative review processes



Chameleon's Eye / Shutterstock.com

Many people develop disabilities, such as arthritis, in later life due to the wear and tear of ageing

- Having engaged with and garnered interest and support of other areas of government to disability

Regional agencies such as the PIFS, Secretariat of the Pacific Community (SPC), ESCAP and the Pacific Disability Forum (PDF) have worked together through partnership arrangements to support PICs in their national development in disability inclusion. The four aforementioned countries also shared common challenges and areas where there has been little or no progress: garnering commitment at a political level and across the whole of government for disability-inclusive development; accessing and allocating resources – budget, technical and human – for disability-specific and disability-inclusive programmes; and progressing inclusive education to meet the needs of people needing sign language in secondary, vocational and post-secondary education.

Ageing and disability

In both developing and developed countries, older people have a higher incidence of disability than any other demographic. Chronic diseases are significant and costly causes of disability and reduced quality of life. An older person's independence is threatened when physical or mental disabilities make it difficult to carry out the activities of daily living. As they grow older, people with lifelong disabilities are likely to encounter additional barriers related to the ageing process. For example, mobility problems may be considerably aggravated later in life.

Many people develop disabilities in later life related to the wear and tear of ageing such as arthritis; the onset of a chronic diseases such as lung cancer, diabetes and peripheral vascular disease; or a degenerative illness such as dementia. The likelihood of experiencing serious cognitive and physical disabilities dramatically increases in very old age (Kiribati National Disability Survey Committee, 2005: p. 11).

There is strong evidence from disability surveys and research studies that disabilities are found frequently among older persons in PICs. The 2006 Cook Islands census found that more people (12 per cent) over 60 reported having a disability compared to other age groups. It also found that 33 per cent of those aged 75 or over reported having a disability. A national survey on disability conducted in Solomon Islands in 2005 found that 48 per cent of all disabilities were found in persons aged 51 years and over (Solomon Islands Government, 2006: p. 7). The Kiribati National Disability Survey conducted in 2004–05 found that 41 per cent of all disabilities were found in those aged 51 years or above. A disability survey in Eu'a, Tonga, in 2005 found that 'one of the greatest causes of disability is the ageing process' (Taylor, 2005: p. 7). A national baseline disability study conducted in Fiji in 2008–09 found that 50 per cent of all disabilities were found in those aged 50 years and above (FNCDP, 2010: p. 20).

There is little in-depth research on ageing and disability in PICs but what exists provides compelling evidence of the importance of the issue. Research on ageing and disability in Fiji showed that

widowed women represent a sub-population at particular risk to disability compared to other groups. Widowed women are also especially vulnerable to poverty as well as having an unmet need for health care and support services (Panapasa, 2002).

Despite the evidence that disability is disproportionately found in older age groups in PICs, most national disability policies have little reference to the particular needs of older persons with disabilities. This should be addressed when policies are reviewed. Currently only two countries in the Pacific (Fiji and Cook Islands) have national policies on ageing. At its ministers' meeting in 2012, the PDF agreed that issues of ageing must be considered in the revision of their national policies on disability inclusive development.

While the CRPD does not make specific reference to older persons, its comprehensive coverage of issues embraces all groups.

Conclusion

PICs face significant challenges, including complex vulnerabilities, dependencies and uncertainties that arise for countries and communities, as our region changes with modernity, the processes of globalisation and the damaging effects of climate change. We stand together as a Pacific region because there are significant benefits to sharing and combining our resources to leverage our voice, influence and competitiveness, and to overcome geographical and demographic disadvantages.

From its foundation, the Pacific Islands Forum has recognised the advantages of shared purpose, and of close co-operation and co-ordination. Pacific nations commit to working together to address common challenges, harness shared strengths, and ensure that individual and collective advancement brings practical benefits to all Pacific people. Co-operation and collaboration among Pacific nations and development partners have been forged through the development of regional frameworks and strategies such as the PRSD.

During the remaining period of PRSD evidence gathering (assisted through stronger monitoring, evaluation and learning, and commissioned research), PIFS should be assisted to provide advice to disability ministers about the need and focus of any future regional strategy or framework on disability rights and inclusive

development after 2015. The advice needs to be based on an assessment of the operating context nationally, regionally and internationally; the extent to which progress in realising rights, commitment and action in disability-inclusive development has occurred in countries; and the priorities and needs identified by national and regional DPOs, service providers and governments.

In the Pacific, the extended family is the main provider of care and social security for the elderly and this will remain the case for some time to come. While family solidarity remains strong, it is weakening in urban areas and in those areas affected by out-migration. Governments will need to develop ways to supplement family care with more formal institutional care as the number of elderly people grows, particularly for those with disabilities.

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Global challenge of hearing impairment: Breaking the silence

Daksha Patel, Andrew Smith and Hannah Kuper

World Health Organization (WHO) Director-General Margaret Chan may well have been right when she said that ‘universal coverage is the single most powerful concept that public health has to offer’. There are strong ethical arguments for working towards universal health coverage (UHC). Moreover, since good health drives development, UHC will protect people from poverty. The right to health is also enshrined within the Convention on the Rights of Persons with Disabilities.

In the context of hearing loss, as with other disabilities, UHC implies adequate focus on both prevention and management, including neonatal screening to detect cases early. It also means ensuring access to health services and health promotion. Rehabilitation and treatment of impairments must be recognised as essentials, not optional extras. This includes the provision of hearing aids and other assistive technologies. But current production of hearing aids meets less than ten per cent of global needs. In most low- and middle-income countries (LMICs), fewer than one out of 40 people who need a hearing aid have one.

Impact of hearing loss

The biggest functional impact of hearing loss is on a person’s ability to communicate with others. Spoken language and cognitive development is often delayed in children with deafness, especially when it is not detected before the critical period of language development at age six months to 18 months; this in turn often results in poor academic performance, with lifelong consequences of poor employment and economic activity.

However, when opportunities are provided for people with hearing loss to communicate they can participate on an equal basis with others through spoken or written language, or through sign language.

The social and emotional impact of hearing loss is due to exclusion from communication, causing loneliness, isolation, frustration, stigmatisation and depression, particularly among older people.

Prevention of hearing loss

Half of all cases of hearing loss can be prevented through primary prevention and health promotion.

Early detection and treatment of the causes of hearing loss is essential. A priority should be the provision of better access to treatment of chronic middle-ear infections and wax impaction at the primary level, especially in children. School screening would provide opportunities for early detection and management.

People with hearing loss can also benefit from cochlear implants, captioning, sign-language training and educational and social support.

Social determinants

The best strategy for effective prevention makes changes to key risk factors in the population as a whole and not just the high-risk minority.

An example is prevention of noise-induced hearing loss (NIHL). NIHL is the most common global cause of acquired adult onset hearing loss and is caused by excessive agricultural, industrial and social noise, such as from listening to loud music. A small reduction in exposure or protection from noise for all may result in large falls in the number of people with NIHL in the population.

Other key targets for prevention of hearing loss are strengthening health systems to deliver immunisation, improving antenatal and perinatal care, monitoring and minimising, where possible, exposure to factors that can harm hearing, such as excessive noise (occupational and recreational), or governance in the use of ototoxic drugs (for example, anti-tuberculosis drugs, anti-malarial drugs and diuretics for blood pressure).

The social and economic gains of prevention of hearing loss are difficult to compute, but are likely to be high. These include savings from a more productive workforce, with fewer acoustic injuries and the reduction in the costs of compensation, which in Europe overall make up about ten per cent of the total cost of compensation of occupational diseases.

Hearing loss is an enormous and growing problem in the world. The WHO estimates that more than five per cent of the world’s population, which equates to 360 million people, have disabling hearing loss. This includes 328 million adults and 32 million children. Eighty per cent of these live in LMICs.

A further 659 million in the world have milder levels of hearing loss, so that, overall, more than one billion people experience hearing loss.

Hearing loss becomes rapidly more common with increasing age and is therefore becoming increasingly common worldwide. By age 65, one in three people are affected by disabling hearing loss. On top of this, there are 43 million 12–35-year-olds with hearing loss and a further 1.1 billion young people thought to be at risk (an estimate based on unsafe music volume).

Challenges and possibilities

In LMICs the challenges include not only lack of resources and infrastructure but also low awareness of the extent and

consequences of hearing loss. Therefore, training programmes are required in primary ear and hearing care, ENT (ear, nose and throat) and audiology to increase numbers of health workers involved in ear and hearing care.

Health workers and policy planners need to begin the consideration of public health methods to prevent and manage hearing loss by setting local priorities and action plans specific to their health systems. Preventive activities include immunisation for measles and mumps, improved governance and monitoring for ototoxic drug usage, early detection and management for middle-ear infections, and promotion of healthy ear care practices in noisy environments. Increasing awareness and skills among health workers can be accelerated through the development of e-learning tools in primary ear and hearing care (based on WHO training manuals) to train health workers in remote settings.

Officially recognising national sign languages and increasing the availability of sign language interpreters are important actions to improve access to sign language services. Human rights legislation and other protections can also help ensure better inclusion approaches for people with hearing loss. The general public and decision-makers at all levels of society need to be made aware of the magnitude and consequences of hearing loss, and that there are now effective means of prevention and alleviation.

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NCDs, disability and ageing: Interrelated challenges in the post-2015 era

Alzheimer's Disease International, Handicap International and NCD Alliance

Today just over a billion people, or approximately 15 per cent of the global population, experience a form of disability (Murray et al., 2012). These can be short- or long-term impairments and often place a person at a disadvantage for full, equitable participation in society. These barriers to economic opportunities and social services are exacerbated by poverty, with vulnerable populations, including women, children and older people, disproportionately affected.

The epidemiological transition from communicable to non-communicable diseases (NCDs) has contributed to this rise in global prevalence of disability. NCDs are now the leading cause of disability worldwide, as many people with NCDs are likely to develop impairments as the disease progresses.

Although not a complete measure of the impact of disabilities, the Global Burden of Disease (GBD) 2010 found that NCDs account for 54 per cent of all disability-adjusted life years (DALYs) in 2010 (ibid). NCDs are estimated to account for 66.5 per cent of all years lived with disability (YLDs) in low- and middle-income countries

(LMICs). In fact, the top contributors to YLDs are all NCD-related – namely diabetes, chronic kidney disease, chronic obstructive pulmonary disease (COPD), asthma and other chronic respiratory diseases, ischaemic heart disease and breast and prostate cancer.

Changing population demographics

Modern demographic patterns, including population growth, youth bulges and rapid demographic ageing, underpin both of these trends. The global population is expected to rise to more than nine billion people by the year 2050. Simultaneously, the world is ageing at an unprecedented rate. Today people over 60 years of age already outnumber children under five, with the fastest growth of the number of older persons occurring in LMICs (ODI, 2013).

These shifting demographics are contributing to the rise in NCDs and disability, and have been recognised as important trends that must shape the post-2015 agenda. Older people are at increased



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Just over a billion people, or approximately 15 per cent of people alive today, have a form of disability

Dementia

Civil society response

Civil society organisations (CSOs) have been the strongest responders to the dementia challenge in the past and they have done that by creating support structures for those living with dementia and their relatives, gathering and providing information about many different aspects of dementia, advocating for improvements in the health and social care system, and raising money for research funding.

A directory of CSOs can be found at www.alz.co.uk/associations [Accessed 1 April 2015].

National policy responses

Most governments are woefully unprepared for the dementia epidemic, with only 20 countries having funded and sought to implement a national dementia plan. Without a plan, the risk is that health and social care systems will not cope with the increase in numbers and operate in crisis mode, escalating costs even further. Alzheimer's Disease International (ADI) and the World Health Organization (WHO) have, in their joint report *Dementia: A Public Health Priority* (WHO, 2012) called upon all governments to make dementia a public health priority and recommended national plans.

A key online resource for national plans is www.alz.co.uk/alzheimer-plans [Accessed 1 April 2015].

These high-level plans can promote the creation of infrastructure and accountability necessary to build dementia-capable programmes for the growing number of people with the disease.

A comprehensive government plan to address the needs of people with dementia provides a mechanism to consider collectively a range of issues, including:

- Promoting broad public awareness of Alzheimer's and combating stigma
- Identifying dementia-capable support services at all stages of the disease
- Quantifying the number of individuals with dementia
- Assessing and improving the quality of health care, social care, and long-term care support and services
- Assessing availability and access to diagnostic services
- Public health efforts to conduct surveillance and promote brain health

Some Commonwealth nations have been in the forefront of the development and implementation of national government Alzheimer's plans, with Australia and the UK each having delivered significant policy-altering strategies in their respective countries. New Zealand, Mauritius, Malta and Singapore have had significant policy activity short of a national plan and, at the time of writing, Barbados, Trinidad and Tobago, and Jamaica were in the early stages of information gathering about dementia issues in their countries.

Michael Splaine, policy advisor, and Marc Wortmann, executive director, Alzheimer's Disease International

risk of developing both NCDs and NCD-related disabilities.

Approximately 75 per cent of NCD deaths in LMICs occur in people over 60 (UN, 2011a). People with disabilities are also at risk of premature ageing.

Older persons are not the only population affected by NCD-related disabilities. NCDs are a cause of disability throughout the life course and can start in infancy. There is now evidence that indicates many of the risks leading to NCDs originate in the early stages of life, influenced by maternal health, birth weight and post-natal environment.

Young people are also affected by a range of NCDs, including childhood cancers – a leading cause of illness and death for children that can cause chronic health problems and disability years after treatment; and type two diabetes – which is steadily increasing in the young and is associated with a range of complications, including amputations, kidney failure and blindness.

Both children and older people with NCD-related disabilities seldom receive adequate attention in health policy and service provision, and often face diminished quality of life.

Implications for human development

The NCD epidemic and associated disability across the life course have a significant impact on the three dimensions that sustain human development – economic growth, social equity and environmental protection.

Economic growth: NCDs and disability impede economic growth by impacting on labour productivity and result in reduced gross domestic product. Over the next 20 years, NCDs will cost more than US\$47 trillion globally, having represented 75 per cent of the global GDP in 2010 (WEF and Harvard School of Public Health, 2011). In LMICs, NCDs (including mental illness) are estimated to cause a cumulative economic loss of \$21 trillion by 2030 (ibid).

Demographic ageing will be a major factor in increasing health expenditure, particularly due to the increased prevalence of NCDs among older persons. At the household level, NCDs, disability and poverty reinforce one another. Disability limits employment and economic participation, can cause increased out-of-pocket payments for health care and is associated with higher rates of catastrophic expenditure and poverty.

Social equity: People with NCDs and disabilities experience numerous barriers to social equity, including lack of access to health care and services, and limited access to quality education

Dementia as a women's health issue

There is growing data and appreciation for the fact that women are more likely to be affected by dementia than men, as both the number of people who will develop dementia and as carers for those with dementia; women currently make up the overwhelming majority of family and professional carers. This has ripple effects in the social and economic development of countries that are only now being quantified and possibly accounted for in the revision of the MDGs and other global policy dialogue.

and other social services. Attitudinal barriers, such as discrimination and stigma, cause social exclusion (particularly for women, who often face double discrimination). These barriers can compromise the capacity of people with disabilities to self-determine their own needs and care – an essential part of social equity and a key part of safeguarding human dignity in all stages of life (WHO and WB, 2011).

Environmental protection: Environmental factors – including rapid urbanisation, air pollution and natural disasters – can increase the risk of health conditions, such as NCDs, that lead to disability and impairment. Unplanned urban design and other unsustainable environmental practices create physical barriers that limit or

eliminate access to health, rehabilitation and education. And in the wake of natural disasters, people with disabilities and older persons are often left behind in the response (ibid). This was recognised in the Sendai framework for Disaster Risk Reduction 2015–30, which has explicit references to the rights and needs of persons with disabilities and older persons (UN, 2015).

Ensuring equitable access to health: A rights-based approach

A range of international declarations, including the Universal Declaration of Human Rights, acknowledge the rights of all people

Caregivers

Among chronic disease conditions, dementia has a uniquely profound effect upon disability and needs for care, making it vital to consider the impact of the condition not only on the persons affected but also on their carers. All over the world, the family remains the cornerstone of care for older people who have lost the capacity for independent living.

Household living arrangements and characteristics of the main caregiver for people with dementia at 11 sites in Latin America, China and India.

10/66 dementia research group study site	Number	Household living arrangements (%)				Characteristics of the main caregiver (%)			
		Alone	Spouse only	Adult children	One or more children under 16 years	Spouse	Child or child-in-law	Non-relative	Female
Cuba	316	6.3	10.2	54.7	33.7	17.3	67.7	5.8	80
Dominican Republic	235	8.5	10.2	48.5	39.9	21.4	44.6	11.6	81.3
Venezuela	140	5.7	4.9	68.1	53.8	13.7	68.4	2.8	80.7
Peru (urban)	129	1.6	9.4	54.3	27.1	13	41.6	30.1	83.7
Peru (rural)	36	13.9	8.3	63.9	38.9	16.7	58.4	2.8	86.1
Mexico (urban)	86	14	9.3	55.8	38.4	5.8	79.1	3.5	83.7
Mexico (rural)	85	16.5	11.1	55.3	31.8	12.9	68.2	2.4	76.5
China (urban)	81	2.5	34.5	38.3	7.4	36.1	47.3	13.9	66.7
China (rural)	56	3.6	8.9	75	60.7	42.9	57.1	0	35.7
India (urban)	75	4	13.3	72	49.2	26.7	40	0	69.3
India (rural)	10	15.1	5.7	67	52.8	23.3	70	0	80.2

Source: ADI, 2009; 10/66 Dementia Research Group, 2004

Scope of the issue

Age is the largest non-modifiable risk factor for dementia. Genetic mutations account for about three per cent of cases, generally persons whose symptoms present under the age of 65 years.

The number of people living with dementia worldwide in 2013 is estimated at 44.35 million, reaching 75.62 million in 2030 and 135.46 million in 2050. Most of the growth in the number of persons with dementia in the next 20 years will be in LMICs.

Updated estimates of the number of people living with dementia in different regions and as a percentage of world total

Region	People with dementia Millions (% of world total)			Proportionate increase (%)	
	2013	2030	2050	2013–30	2013–50
G8	14.02 (32%)	20.38 (27%)	28.91 (21%)	45	106
G20	33.93 (76%)	56.4 (75%)	96.61 (71%)	66	185
OECD	18.08 (41%)	27.98 (37%)	43.65 (32%)	55	142
High income	17 (38%)	25.86 (34%)	39.19 (29%)	52	131
Low and middle income	27.84 (62%)	49.76 (66%)	96.27 (71%)	79	246
World	44.35	75.62	135.46	71	205

Source: ADI, 2013

to enjoy the highest attainable standard of physical and mental health (UN, 2011b). The landmark Convention on the Rights of Persons with Disabilities (CRPD) outlines the civil, cultural, political, social and economic rights of people with disabilities.

Similarly, there have been international declarations and commitments with respect to ageing, as well as NCDs (UN, 2002).

In practice, these international commitments and principles are often not upheld. Persons with disabilities, people living with or at risk of NCDs, children and older people are too often denied their right to accessible and appropriate health care. Barriers to accessing the full continuum of health services can be found in many countries and communities.

Given the chronic nature of NCDs and the need for access to continuous care, people with physical disabilities experience particular challenges. For these reasons, the global response to the interrelated challenges of NCDs, disability and ageing must be underpinned by a rights-based approach.

People living with disabilities must enjoy unimpaired, equitable and non-discriminatory access to a full continuity of health services for NCDs – from primary, secondary and tertiary prevention and treatment through to care support and palliation. This will involve empowering people living with disabilities and removing the barriers that prevent them participating in their communities.

A way forward

As the expiry date of the current Millennium Development Goals (MDGs) fast approaches, there is a unique opportunity to shape the successor framework and redefine what constitutes universal, healthy, equitable and sustainable human development. For the post-2015 development framework to address NCDs, disability and changing population demographics effectively, the following recommendations should be taken into consideration:

Health after 2015 must measure and drive progress in quality of life, mortality, morbidity and disability. An overarching health goal that measures healthy life expectancy (HALE) would be applicable to all countries in the post-2015 era. HALE across the life course would measure and drive progress in reducing mortality, morbidity and disability at all ages and for all causes.

Adopt a life-course approach to health. From an NCD and disability perspective, promoting good health and healthy behaviours at all ages is critical. All people, regardless of their age or ability, must be included in strategies on prevention (including behaviour change and communication), detection and diagnosis, management, rehabilitation, treatment and care in the post-2015 era.

Provide equitable, universal access to the full continuum of health services, including rehabilitation. A key enabler for health post-2015 should be universal health coverage (UHC). But to ensure UHC allows for NCDs, disability and ageing, it must incorporate NCDs and disability services, including rehabilitation, functional support, access to quality-assured essential medicines, and assistive devices and technologies.

Promote health literacy and self-management education for all. Both are critical for empowering people to improve health

outcomes – and enabling people with disabilities or incurable chronic conditions to lead full, healthy lives.

Build upon existing commitments and policy frameworks for NCDs, ageing and disabilities. Existing declarations, treaties and action plans, particularly the WHO Disability Action Plan 2014–21, UN Political Declaration on NCDs, Convention on the Rights of Persons with Disabilities, and Madrid Plan of Action, must be reflected in the post-2015 agenda.

Agree the proposed global NCD mortality target. The proposed target by the Open Working Group to ‘by 2030 reduce by one-third premature mortality from NCDs through prevention and treatment, and promote mental health and well-being’ should be supported in the final Sustainable Development Goal (SDG) framework. This target is adapted from the adopted target to achieve a 25 per cent reduction in overall preventable mortality from NCDs by 2025 – referred to as ‘25 by 25’. Agreeing to this target for 2030 will ensure that NCDs remain a top priority within the new development agenda, and that the goal drives progress for all people of all ages across the life course.

Ensure a strong equity focus. Echoing the report of the UN High-Level Panel of Eminent Persons, the post-2015 framework should ‘leave no one behind’. All goals and targets must have a strong equity focus in order to measure progress within the poorest and most marginalised populations. Disaggregated data by gender, age, disability and income will be necessary.

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Non-communicable diseases: Children and adolescents

NCD Child

Non-communicable diseases (NCDs) have a significant impact on children and adolescents. Approximately 1.2 million deaths from NCDs occur each year in people under the age of 20 – more than 13 per cent of all NCD mortality (NCD Child, 2013). Furthermore, while child mortality rates have recently decreased, mortality in adolescents has only marginally improved. Children die from treatable NCDs, such as rheumatic heart disease, type one diabetes, asthma and leukemia. Prenatal and childhood exposure to tobacco and alcohol, prematurity and low birth-weight, malnutrition and obesity, and diabetes have long-term impacts on health and development, including increased risk of adult cardiovascular disease, diabetes, and other social and medical problems later in life.

In much of the world, road traffic and other injuries are the leading cause of death for those aged five to 15 years (Marquez and Farrington, 2013). Many of the behaviors that lead to adult NCDs start during childhood and adolescence. Over half of all NCD-related deaths each year are associated with behaviours attained in youth:

- More than 25 per cent of obese adolescents have signs of diabetes by the age of 15 years
- Despite improvements in survival for some childhood cancers, survival is much lower in resource-poor countries
- Ninety per cent of the one million children born each year with congenital heart disease live in areas without adequate medical care
- Tobacco smoke exposure causes asthma, otitis and respiratory infections in children
- Mental health disorders, motor vehicle trauma, homicide and suicide cause significant morbidity and mortality in youth

Globally, 100,000 young people start smoking each day, and more than 90 per cent of adults who smoke started smoking as children or adolescents. Teenage alcohol consumption is common, risking impaired brain development, higher rates of non-intentional injury and violence, and alcohol dependence in adulthood. Being overweight and obese is increasing in both high-income, and low- and middle-income countries (LMICs), thus also increasing the risk of diabetes and cardiovascular disease.

Whether congenital or acquired, childhood NCDs lead to disabilities that follow into adulthood. While asthma is often the most common NCD in industrialised countries, childhood disability is increasing and emotional, behavioural and neurological disabilities

are more prevalent than many physical impairments. In the USA, for example, more than one in five families have at least one child with special or extraordinary health care needs, and many children and adolescents with special health care needs do not receive all the services they need.

Both prevention and treatment interventions for children and teenagers are effective strategies for reducing the global social and economic burden of NCDs. Addressing the global burden of NCDs through a life-course approach can reduce both rates of NCDs, and can greatly improve the lives of those living with illness. Youth and family voices, and civil society and professional organisations' inclusion in countries' discussions will help lead to optimal solutions. Countries have an opportunity to include the needs of children and adolescents affected by and/or at risk of developing NCDs as part of their NCD plans, and in addressing the impact of NCDs on post-2015 Sustainable Development Goals.

Commonwealth diversity

Fully 30 per cent of the people of the Commonwealth are younger than 30 years old, and this group is guaranteed to stay relatively young for the next few decades, as African and some Asian populations continue to grow. Likewise, as emerging economies develop, with improved social, economic and environmental characteristics, there will be significant shifts in the incidence and impact of NCDs among children and adolescents in these nations.

The diversity seen in the demographic factors above are reflected in the diversity of legislation, policies, budgeting, financing, knowledge, attitudes, behaviour, research and monitoring of NCDs, particularly with regard to children and adolescents. Prevention, provision of care and treatment, and mechanisms to support those affected by NCDs – at home, at school, at work and in society generally – vary across and within countries, with social and economic 'minorities' (poor, uneducated, inner-city and rural, very young and very old, female and disabled) disproportionately affected.

The principal determinants of health, namely the social and economic environment, physical environment, and individual characteristics and behaviours, are interlinked and interdependent. Shifts occur over the lifecycle and generations, and vary across a range of demographic factors. The Commonwealth has the opportunity to have an impact on the situation of NCDs in children and adolescents in each country, and to serve as a model for the rest of the world to learn from. Any progress made among

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Almost a third of people living in the Commonwealth are below the age of 30

Commonwealth countries will contribute significantly to addressing NCDs globally, as well as providing a cohesive and coherent forum for collective learning and sharing, for its members and the world.

Human rights, NCDs and universal health coverage

The World Health Organization (WHO) considers universal health coverage (UHC) as, 'by definition, a practical expression of the concern for health equity and the right to health' (WHO, 2012) and, as such, discussions surrounding the need for UHC are enshrined in various international human-rights instruments.¹ In the lead up to the finalisation of the SDGs, the international community has recognised the need to include UHC in the post-2015 development agenda, especially so as to ensure the effective and efficient protection and promotion of the rights of children and adolescents to health.²

A rights-based policy requires that all health-related discussions are anchored in the life-course approach. This is imperative given that health is an important cross-cutting development and human-rights issue that extends to underlying social determinants, including the right to access clean water, nutrition and housing. It should also encompass environmental issues, education and access to information on topics such as sexual and reproductive health (CESCR, 2000). Nevertheless, member states have an obligation to ensure that when they consider these issues, the best interests of

the child are the primary consideration in all policy decisions. Any discussions related to UHC must, therefore, also focus on the specific health needs of children and adolescents, and must ensure adequate and quality child- and adolescent-focused health facilities and programmes are accessible, affordable and available. Moreover, the realisation of this right requires particular attention to increasing interaction with young people, and their participation at all stages of health system design and operation.

While the 'progressive realisation' of the right to health is based on the availability of resources, this human right does have 'core minimum obligations' that member states must respect, protect and fulfil (CESCR, 2000). These obligations must be prioritised and include access to essential primary health care, and the adoption and implementation of a national public health strategy and plan of action. Deliberate steps and action must be taken by member states to ensure the maximum available resources, including those available through international assistance and co-operation, are utilised to progressively realise the right to health and to ensure UHC, which includes appropriate attention to the needs of children and youth with NCDs.

Prevention in adolescents

In 2011 the World Health Assembly endorsed a resolution calling upon member states to address the needs of youth in the context of NCDs. In 2002 the WHO Director's Report noted that unhealthy

choices were not exclusive to industrialised nations, and recommended that prevention of NCDs must include a strong focus on adolescents and youth.

Unhealthy behaviours are hard to change once they are established. Young people need to be protected from four main behavioural risk factors that contribute to NCDs: tobacco use, physical inactivity and/or lack of exercise, poor eating habits/unhealthy diets (foods containing high levels of saturated fats, trans-fats, sugar and salt) and harmful use of alcohol. Rapid urbanisation is a driving force behind some risks, as insufficient physical activity and unhealthy diets are quickly emerging in many LMICs.

A focus on adolescents in national health programmes in every country is essential for preventing NCDs (WHO, 2002). Health care delivery systems can and should provide individualised, tailored prevention interventions, as evidence clearly demonstrates the effectiveness of certain clinical preventive services. In addition, advocacy by multiple stakeholders is required, including parents, teachers, youth leaders, non-governmental organisations, and political and religious leaders. Awareness and education regarding NCD prevention needs to include school and community-based programmes. Effective interventions include those imparting skills-based learning, such as WHO/Unicef/UNFPA-designed life-skills education programmes, which develop peer educators to support and propagate healthy lifestyles.

Coverage for cancer

When it comes to cancer care, many insurance policies do not cover it or they might charge high premiums, rendering it too costly for many to obtain proper health coverage. This is the case for Jordan, a middle-income country. In many countries, Jordan included, adolescents tend to be regarded as a demographic that does not need cancer care coverage.

To offset the risk of many teenagers not being able to obtain necessary treatment due to financial limitations or lack of a proper insurance coverage, the King Hussein Cancer Foundation developed a unique Cancer Care Program (CCP). The CCP is a non-profit coverage programme that provides cancer care coverage and guaranteed treatment at the King Hussein Cancer Center (KHCC) – a Joint Commission International-accredited cancer centre. There is a minimal annual subscription fee (premium), but no other insurance company in Jordan provides guaranteed treatment at KHCC. The programme offers a diverse range of premiums for different cancer coverage ceilings that start at US\$18 a year for a policy with coverage up to \$14,124 for children, teenagers and adults up to age 34. The premiums charged by the programme are used to support its operation. From an actuarial perspective, the premiums collected from teenagers subsidise the treatments costs of adults.

The programme has no age limit or restrictions on subscriber nationality, provided there is no previous history of cancer. The ease and flexibility of the programme has allowed many to be insured and has driven corporations to insure their employees and families to insure their children. The programme has more than 120,000 subscribers and is growing.

During adolescence, health services should include careful attention to health promotion and prevention, as this is a time when young people can reduce their risks for many chronic conditions.

Adolescents undergo many changes, both physically and socially, as they transition from childhood into adulthood. To realise their full potential, adolescents require support from their families, health care providers and communities to reduce threats to their health. Thus, preventive health strategies require collaborative efforts, involving guidance and support to promote healthy choices and healthy decisions.

Treatment and care systems for children and adolescents

Adopting a life-course approach to NCD prevention is imperative, but ensuring child health care systems have adequate detection, treatment and management services for children living with NCDs is also essential. Out-of-pocket spending can be enormously high when a child in the family has a chronic condition. Without a social safety net and in the absence of UHC, many families are pushed into a cycle of poverty if one of their members has an NCD.

There are vast inequities in the level of care and survival rates for NCDs between high-income countries and LMICs. For example, while some childhood cancer is curable and survival rates of 80–90 per cent are seen in high-income countries, in LMICs comparable diagnoses survival rates are only ten to 30 per cent (Gupta et al., 2014). Similar disparities exist for type one diabetes; while clinical management significantly reduces deaths and the risk of complications, access to insulin and access to care for management varies greatly across countries.

Some NCDs affecting children are not as common, but nevertheless impose a great burden on the affected children. These include diseases such as congenital adrenal hyperplasia (CAH), osteogenesis imperfecta and other chronic illnesses. These illnesses have a significant impact on the families and in many countries health systems do not provide access to the supportive services needed to allow these young people to live productive lives.

Good health is both an outcome and a determinant of successful health care systems and health-in-all policies. Childhood NCDs are complex and may require a broad spectrum of care services, including health care, schools and social assistance. UHC financing and service provision should be prioritised and equitable health care systems should leverage inter-sectoral action to address the prevention, treatment and management of NCDs at all stages of life.

Additionally, health care systems can and should engage young people and their families as equal partners in the fight against NCDs by empowering them to be active agents in their treatment and care, and supporting them to advocate for themselves and others. Young people impart innovative and energising ideas and solutions, and help bridge the gap between policy discourse and community implementation. They should be included in decisions and actions that identify, address, and allocate solutions and resources to the fight against NCDs.

A call to action

As the ministries of Commonwealth member states engage in the post-2015 development agenda, they must ensure that the needs

of children and adolescents are fully reflected and highlighted. It is clear that children and youth are the future of our world and the key to sustainable development.

As member states begin the process of finalising the SDGs and targets, it is critical that the global community voices the importance that NCDs play in sustainable development and the life-course approach to reducing NCDs globally. Goals and targets must be inclusive of the child and adolescent populations, and allow for country-level policy, planning and accountability. Young people are key to this discussion and ensuring that they have access to information to make better lifestyle choices, affordable treatment for NCDs and community support for progressing through adolescence into adulthood to live a healthy life is critical.

Providing a healthy life course for all children and adolescents will improve the state of the world's health. Highlighting and encouraging the six themes below can support this vision:

- Member states should develop and finalise NCD plans that include targets for access to and delivery of prevention and treatment services for children and young people, and should advocate for inclusion of outcomes relevant to young people in the WHO's monitoring of country-level NCD plans
- Member states should advocate for health indicators in the SDGs to include WHO-monitored NCD surveillance data that specifically includes children and adolescents. Categorical, global and age-aggregated data is not sufficient for monitoring and reporting the impact of policy choices on NCD prevention and treatment for children and adolescents
- Countries should include a commitment to clinical and community preventive services as part of routine health care system development and strengthening. Programmes to promote and provide support for healthy eating habits, tobacco and second-hand smoke prevention and cessation, injury prevention, mental health promotion and safe sexual practices can and should be integrated into routine health care delivery for adolescents
- Nations must understand and act upon the need for access to care for children and young people living with cancer, heart disease, diabetes, respiratory diseases and other NCDs. Developing systems, adequate personnel and resources for providing UHC is important in providing equitable access to families and individuals needing treatment and living with NCDs
- Voices of families and young people should be included in planning health systems in order to improve systems' ability to meet population needs. Public-private partnerships with government, civil society organisations and professional clinicians' organisations can support the inclusion of family voices
- Donor country aid agencies supporting categorical and integrated services in LMICs should support adequate funding towards surveillance, prevention and care for children and youth with NCDs

Endnotes

- 1 The right to health is contained in Article 12 of the International Covenant on Economic, Social and Cultural Rights; Article 24 of the Convention on the Rights of the Child; Article 25 of the Universal Declaration of Human Rights; Article 5 of the Convention on the Elimination of All Forms of Racial Discrimination; Article 25 of the Convention on the Rights of Persons with Disabilities; Articles 12 and 14 of the Convention on the Elimination of All Forms of Discrimination Against Women; and Article XI of the American Declaration on Rights and Duties of Man. It also follows on from discussions in the lead up to the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-Communicable Diseases and the Political Declaration on HIV and AIDS: Intensifying Our Efforts to Eliminate HIV and AIDS.
- 2 United Nations General Assembly: Human Rights Council, 'Rights of the Child', Resolution A/HRC/19/2, paragraph 37; United Nations General Assembly, 67th session, Agenda Item 123, 'Global health and foreign policy', 6 December 2012.

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NCD CHILD is a global alliance of organisations focused on non-communicable diseases in children and adolescents. The main goals of NCD Child are to advocate for the inclusion of children and youth, and the treatment and prevention of NCDs, on the global health agenda, and to promote inclusion of youth and family voices in global and country planning for NCDs.

Leadership, resourcing and governance



The Commonwealth

Rwanda's quest for universal health coverage

Agnes Binagwaho

As Minister of Health for Rwanda, I feel a duty to operationalise Rwanda's vision for universal health coverage. Such a vision demonstrates the country's genuine commitment to equity. Globally, universal health coverage (UHC) is recognised as a complex but powerful notion for health activists and policy-makers to rally behind as they act to improve the health of the world.

I am drawn to the term's explicit reference to providing care in a 'universal' fashion as, for far too long, the poor and vulnerable have been left behind. And yet I also believe that achieving true UHC requires far more than policies that ensure people are protected from the catastrophic costs of receiving health care. Such initiatives are critical, but insufficient for achieving the gains in health that the world needs to see.

This article captures some of my reflections on how we have worked towards achieving UHC in Rwanda. The country has made much progress towards meeting this objective – especially considering the devastation it faced just 21 years ago, at the time of the genocide – and yet Rwanda still has a long way to go to meet its ambitious goals for a brighter and healthier future for all.

Decentralisation

First, the decentralisation of Rwanda's health sector has helped us work towards geographic equity of health service delivery. By aligning the organisation of the health sector with the governance and

Community health workers

Key to providing health services at the local (or village) level has been Rwanda's robust network of 45,000 community health workers (CHWs). There are three CHWs per village, two women and one man, who are tasked with the meaningful challenge of preventing and even curing some diseases in their community, and monitoring the health of their family, friends and neighbours. CHWs are elected by their communities. This very act of involving the community to designate their representatives to the health sector signals the country's effort to make health improvements a participatory process at all levels. It is then the Ministry of Health's responsibility to equip these elected CHWs with the training they need to provide high-quality care as well as the equipment needed to do so. Since the majority of the country's preventable mortality and morbidity can be reduced by intervening at the community level, Rwanda has witnessed rapid and impressive declines in the burden attributable to the scourges of HIV/AIDS, tuberculosis and malaria, as well as improvements in maternal and child health, given this effort to provide care through these incredible local leaders (Farmer et al., 2013).

administrative structures already in place in Rwanda – ranging from the village to the sector, district and national levels – has helped the country make progress towards this UHC goal. It has helped us to bring care where it is needed for our people.

Complementary to the community health workers (CHWs) is the elaborate system of health posts, health centres, district hospitals and provincial/referral hospitals throughout the country. These facilities have been constructed under the principle of geographic equity to health care services to ensure that health care is never far from our people. For example, there are currently a few more than 500 health centres distributed throughout the country's 416 sectors, staffed by approximately ten nurses and overseen by a physician at the district level. There are only 18 sectors without at least one designated health centre; filling this gap is a priority for the Ministry of Health so that we can further reduce the time it takes for any individual to reach a health care facility. Today, the average time to reach such care is one hour.

Though we have these facilities in place, there is more we can do to improve geographic access to care throughout the land of a thousand hills, an idea that has inspired the development of health posts nationally. We have already constructed more than 400 health posts, which are staffed by a trained nurse, and we are steadily making progress to ensure that there are at least 1,800 posts distributed equitably throughout the country within the next three years – one in each cell where there is no health centre. For more advanced care, there is a minimum of one district hospital staffed by physicians and nurses, and then a higher acuity provincial or referral hospital available in each of Rwanda's five provinces.

Building, equipping, staffing and operating this intricate network of health facilities, distributed through existing administrative units, has required strong collaborations with many other ministries, including the Ministry of Local Governance, Ministry of Education, Ministry of Infrastructure and the ministry in charge of civil servants. It has also benefited from a strategic referral system that connects the health facilities together and ensures that limited resources at each site are not invested when care could be provided in a lower acuity setting.

Human resources for health

Staffing these numerous health facilities nationally with well-educated health professionals has required herculean efforts. Developing a cadre of qualified health personnel has been particularly challenging given that Rwanda lost a large share of its health workers during the 1994 genocide. Since that difficult time, Rwanda has embraced initiatives, such as task shifting – for example, allowing CHWs to provide care that may be provided by nurses in other settings, or permitting nurses to deliver care that may typically be provided by doctors (if they existed) – which are

coupled with policies to ensure that the care provided is safe and held to the highest standard possible.

Yet, it has always been clear that to meet the changing needs of a population that is both growing and ageing, more innovation is necessary to bolster the quantity and quality of health care providers across the country. This inspired the development of a historic seven-year partnership between the governments of Rwanda and the USA, along with dozens of American universities, to bring US medical and health care faculty to 'twin' with Rwandan faculty, and work collectively to educate rising health professionals, bolstering Rwanda's health care workforce. The Rwanda Human Resources for Health programme is ongoing and illustrates the type of innovation in partnerships that we should be striving for on this quest for UHC globally (Binagwaho et al., 2013).

Insurance model

Rwanda has aimed to address the important challenge of mitigating financial barriers to care through its *Mutuelles de Sante* health insurance programme (Makaka, Breen and Binagwaho, 2012). Improving financial accessibility to health care services has a direct, clear connection with the goals implicit in UHC. Through this community-based health insurance scheme, as well as other programmes that provide coverage for civil servants and the military, more than 80 per cent of Rwandans have health insurance today. *Mutuelles* fundamentally subscribes to a spirit of solidarity to assure everyone has access to health care services and each person contributes towards the system in a way that is reflective of his or her financial situation. The poorest quarter of the population is not required or expected to pay for their insurance premiums or at the point of care. This does not mean the care is free; the government has assumed the important responsibility of allocating funds to ensure that these insurance premiums and co-pays are covered for the poorest 25 per cent of the population. This investment is worth every ounce of effort it necessitates as it shows our commitment to the poorest in the population. We will not leave them behind. Through this programme, we show that everyone recognises that health has value, it is not free, and we look forward to them ensuring that others can benefit from this same support once they themselves are lifted out of poverty.

For the less poor, or financially better off in society, their contribution to *Mutuelles* is approximately US\$5 (for the middle class) or \$12 (for those with higher incomes) per person per year. This contribution has helped to foster a shift in mindset as Rwandans are now becoming more familiar with paying into an insurance pool even prior to receiving care; this translates into ensuring that the entire population has financial access to the same basic health care services and that no one is refused care due to their inability to pay. The programme has shown that a resource-limited setting is more than capable of achieving high insurance coverage rates should it have the political will, vision, strategies and tools to do so, and how a community-based system can be leveraged to make this vision a reality (Lu et al., 2012).

A critical challenge before us in working towards the next stage in our quest for UHC, however, is how to integrate nationally more sophisticated and advanced health care services, such as dialysis and cardiac surgery, that are currently provided through special initiatives or programmes, thereby making them available to everyone rather than just to those with sponsorships or the financial means to receive care.

Clinical safety and quality

The above strategies are of no benefit if the actual service delivered is unsafe and of poor quality. This is why Rwanda is working diligently to prioritise quality of care on this quest for achieving meaningful UHC for its population. From a national level, this has involved a range of activities and policies, including Rwanda's performance-based financing programme and its recent efforts to require hospital accreditation standards. We have also encouraged current health care professionals to take on coursework that will help them to reflect upon the quality of care they provide at their facility (Binagwaho and Scott, 2015). Encouraging both health care workers and patients to comment on how we can improve the quality of health care services that we provide will help us to make further strides in this arena.

Lastly, a spirit of innovation and effective collaboration has helped Rwanda make progress towards achieving the goal of UHC. There are countless examples that demonstrate such a spirit. For instance, Rwanda has enthusiastically integrated technology into all layers of its decentralised health system, including having CHWs report on the status of each pregnant mother through a mobile-based system. Additionally, Rwanda's governance, through a cluster-based system, helps to ensure that relevant ministries are regularly discussing their priorities and collaborating rather than competing for funds (Binagwaho, 2014).

Though Rwanda has made historic progress in population health over the past two decades, I am the first to admit that we have had our share of challenges and still have a long way to go. Even when we meet a target set before us, we know that we can do even better. Not everything we have tried has been successful, but we keep trying – we keep innovating. And we are delighted to have partners globally who share this commitment accompany us in this quest for universal health coverage.

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The role of social protection in Africa

Mary Amuyunzu-Nyamongo, Alice Sinkeet and Brenda Maina

There is a growing global awareness that the world is ageing. It is projected that people aged 60 years and over will constitute two billion of the world's population by 2050. In Africa the population of older people is expected to grow from 46 million in 2015 to 157 million by 2050, with this growth occurring in a context where health care is constrained by accessibility, quality of care and affordability. The situation is dire for older people, most of whom have limited access to health insurance and family support. Poor people, who have been unable to save for old age, are particularly vulnerable. This article presents an analysis of the current status of health care access for older people in African countries with a call for universal health coverage (UHC).

Ageing and health status

Older people (those aged 60 years and above) in Africa face a large morbidity and disability burden, particularly from chronic diseases. The World Health Organization (WHO) Global Burden of Disease report 2010¹ indicates that cardiovascular and circulatory diseases, nutritional deficiencies, cirrhosis of the liver and diabetes are the major causes of disability-adjusted life years for Sub-Saharan Africa's older population. The results of a WHO (2012) study established that the most commonly reported health problems facing older people were arthritis (42 per cent), hypertension (41.3 per cent), malaria (35.9 per cent) and eye problems (35.9 per cent). Further, infectious diseases continue to affect older people in Africa within a context of high levels of HIV among other infectious and neglected tropical diseases (such as trachoma and onchocerciasis). The susceptibility of older men and women to ill health has far-reaching effects since they make critical contributions to their households and communities throughout the continent.

It is notable that across the continent 64 per cent of men over 60 years of age continue to work across the formal and informal sectors. Furthermore, older women tend to live longer than older men, with a life expectancy at 60 of a further 17 years.² In fact, in most communities, and more so in rural areas, older women continue in their domestic and subsistence farming roles. Consequently, impaired health in older age does not only affect the older people in Africa, but overall prospects for development.

There is evidence that the health systems in Africa are structured to respond more to acute illnesses, and child and maternal health rather than to the needs of older people. Despite having worse health than younger age groups, older people in Sub-Saharan Africa have been observed to use health services substantially less than younger people (McIntyre, 2004). The limited use of health facilities by older people could be due to several factors, including being unable to pay for transport to get to the health centre or for the medication; lack of the right identity documentation to prove their eligibility for free or subsidised services; being unaware of

what they are entitled to; being physically unable to queue for a long time while waiting to be seen, or to take the journey to the health centre by public transport; and being geographically isolated from services, with limited or a complete lack of public transport, as is the case in some sub-regions on the continent.³

The state of health insurance

It is evident that few countries in Africa provide public health care services free of charge – these are Algeria, Egypt, Ghana, Libya, Mauritius, Morocco, Rwanda, South Africa and Tunisia. Only three of the ten countries participating in the WHO-AFRO report (2012) had formal health insurance (Algeria, Cameroon and South Africa). The majority of the respondents in the three sub-regions did not have health insurance and had limited reimbursement of the money spent on treatment. In Central Africa about 12 per cent of the respondents had health insurance; in East and Southern Africa, 9.1 per cent; and in West Africa, 2.5 per cent. In the Central African Republic, study participants reported that the government, with resources from development partners, provided subsidies, while in Senegal the model was based on community financing. Exceptionally, in Algeria insurance companies provided 99.3 per cent reimbursement for the cost of medicine for those in rural areas, 96.4 per cent for those in urban areas and 98.9 per cent for those in peri-urban areas. The overall proportion of the respondents who had free government health services was less than 14 per cent.

To ease the burden of health care for vulnerable persons, including the poor and the elderly, some countries have initiated waiver systems for particular health conditions. However, exemptions and waivers that are not obtained as health insurance remain at the rudimentary stages of development in the region. In countries where user fees are charged, there is limited evidence that quality of care has improved even with the additional funds generated from such fees. There is a possibility that people often delay or defer accessing or using services even if they believe they need care, due to high out-of-pocket payments (Peltzer et al., 2014).

One strategy being used by some African countries, although mostly on a pilot basis, is the introduction of old age pensions that are either targeted (e.g. in Kenya and Tanzania) or universal (e.g. in Lesotho and Mauritius). The cash transfers support the older persons in meeting their health care and food needs, among other requirements. In Lesotho, for instance, Anotsi and Aiyuk (2012) established that 'with the initiation of monthly pension they [older people] were able to access health services and also had some money to spare ... the pension money had contributed to the ability of the elderly to pay for health services and to access health care'. In Ghana there are efforts to link the cash transfers to the national health insurance scheme. In addition, Kenya is in the

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Only nine countries in Africa provide free public health care, but others have begun looking at ways to help the most vulnerable

planning stages of linking beneficiaries of older persons' cash transfers to the National Health Insurance Fund. However, these measures are limited in scope, lacking in comprehensiveness and long-term projection.

The need for UHC in Africa

Universal health coverage (UHC) is a broad concept that encompasses some form of government action aimed at extending access to health care as widely as possible and setting minimum standards. The definition set out by the WHO⁴ on UHC integrates these themes:

Universal coverage is defined as access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access. The principle of financial-risk protection ensures that the cost of care does not put people at risk of financial catastrophe. A related objective of health-financing policy is equity in financing: households contribute to the health system on the basis of ability to pay. Universal coverage is consistent with WHO's concepts of health for all and primary health care.

A legal framework is important for legislating and regulating the care that should be extended, to whom and on what basis. Most of the costs of care usually come from a combination of compulsory insurance and tax revenues, although in certain cases some of the costs are borne by the patient at the time of accessing health service.

Social health insurance pools the health risks of its members and contributions of households, enterprises and government to provide a specific benefit package of care to the insured (Karamagi, 2015).

In essence, UHC operates on a social solidarity principle: contributions according to income and benefits according to need. It is notable that healthier ageing cohorts and risk pooling under UHC may provide a path for sustainable health service financing and delivery.

UHC embodies three important health objectives: equity in access to health care; quality health care service; and broader social health protection. The World Health Assembly (WHA) Resolution 58.33, in recognition of the limited spread of social health insurance, urges member states to take specific steps towards ensuring equitable access to health care for all people. These steps include:

- (i) Ensuring that health-financing systems include a method for prepayment of financial contributions for health care, with a view to sharing risk among the population and avoiding catastrophic health care expenditure and impoverishment of individuals as a result of seeking care
- (ii) Planning the transition to universal coverage of their citizens so as to contribute to meeting the needs of the population for health care and improving its quality; reducing poverty; attaining internationally agreed development goals, including those contained in the United Nations Millennium Declaration; and to achieving health for all

- (iii) Taking advantage, where appropriate, of opportunities that exist for collaboration between public and private providers, and health-financing organisations, under strong overall government stewardship

It is clear that in many African countries the vulnerability of older people increases due to decline in employment opportunities; increased vulnerability due to health conditions; limited mobility; discrimination in access to credit; changes in household composition and status; parental responsibility arising from prime age deaths from HIV/AIDS; and collapse/decline of the traditional safety net provided by extended family (Oduor, 2015).

Conclusion

It is clear that over the past few decades, health sector reforms in many African and other low- and middle-income countries have increased inequities in access to affordable health care. A growing reliance on out-of-pocket payments and privately organised care has resulted in health care provided on the basis of ability to pay, which has disadvantaged some groups, including older persons.⁵ The health systems in Africa are not designed to meet the needs of older people or to address chronic diseases. There is thus a need for African governments to deliberately include in their health systems those services that target older people, including at peripheral and district health facilities. In addition, countries need to expand the reach of social protection programmes and work towards making them universal. The current prevalence of pilot and targeted programmes does not meet the needs of most older people, who usually make up the poorest in any country.

Furthermore, countries need to be cognisant of the increasing susceptibility of the population to chronic non-communicable diseases that require a shift in the health service delivery frameworks. Changes in the health system, reforms in UHC and expansion of social protection programmes should be evidence based, taking into account the country contexts.

Endnotes

- 1 See www.who.int/healthinfo/global_burden_disease/gbd/en/ [Accessed 10 April 2015].
- 2 UNDESA, population ageing wall chart.
- 3 See Helpage International, 'Older people in Africa: A forgotten generation': www.helpage.org/silo/files/older-people-in-africa-a-forgotten-generation.pdf [Accessed 10 April 2015].
- 4 See www.who.int/health_financing/documents/cov-wharesolution5833/en/ [Accessed 10 April 2015].

- 5 Health access constraints in Kenya include out-of-pocket payments still playing a significant role in health expenditure (36 per cent); less than two per cent of Kenyans being covered by private health insurance, with about a fifth having NHIF cover; about two-fifths of Kenyans having to dispose of their assets or borrow money to pay for medical bills; about 100,000 households being impoverished due to catastrophic expenditures; and a fifth of sick Kenyans refusing to seek care due to financial barriers, the majority of these being orphans, the elderly, the disabled and children (Muraguri, 2015).

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Universal health coverage and the elderly: Basic principles

S. Arulraj, R. V. Asokan and R. Hewapathirana

Universal health coverage (UHC) implies that all people receive the health services they need without suffering financial hardship when paying for them. The full spectrum of essential, quality health services should be covered, including health promotion, prevention and treatment, rehabilitation and palliative care. Nations that are planning to attain UHC need to consider the social, economic and political contexts of their countries to develop sustainable approaches.

There are two key principles for financing for UHC: insurance premiums and tax revenues. However, if people have to pay most of the cost out of their own pockets, the poor will be unable to obtain many of the services they need and even the wealthy will be exposed to financial hardship in the event of severe or long-term illness. Hence, many of the countries that have successfully implemented UHC collect insurance premiums only from those in formal salaried employment and pool these where possible with tax revenues to finance health coverage for the entire population (Oxfam, 2013). Forms of financial risk protection that pool funds (through tax, other government revenues and/or insurance contributions) to spread the financial risks of illness across the population, and allow for cross subsidy from rich to poor and from healthy to ill, increase access to both needed services and financial risk protection.

Background

Globally, the agenda of UHC is taking centre stage in health policy. Governments, as well as civil society, in developed and developing countries are engaged in active debates over how best to achieve it. The concept of UHC, however, has a long history. Article 25.1 of the 1948 Universal Declaration of Human Rights states: 'Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services.' In 1966 member states of the International Covenant on Economic, Social and Cultural Rights recognised 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.¹ The 1978 Alma-Ata declaration stands out as a

landmark in the modern history of public health by promoting the vision of health for all.

Current scenario

State-led implementation of UHC dates back even further. With the 1883 Health Insurance Bill, Germany became the first country to make nationwide health insurance mandatory. The bill laid the foundations for Germany's generous social health insurance scheme, which covers 88 per cent of its population today.² Great Britain followed Germany in 1911 with the enactment of the National Insurance Act and the National Health Service (NHS) in 1948, which caters to all legal residents of Great Britain with supplementation from private insurance providers. Today, most high-income countries (HICs) have some system of UHC.

Public demand, economic feasibility and political leadership have combined to encourage many low- and middle-income countries (LMICs) to adopt UHC as a realistic goal. Countries like Kenya and India are in the process of introducing UHC, joining the ranks of Brazil, Thailand, Sri Lanka and Taiwan – countries with two to three decades of experience on the path to UHC. Whatever the approach is, the World Health Organization (WHO) has been explicit that countries should prioritise four key actions to finance UHC. These include reducing direct payments, maximising mandatory pre-payment, establishing large risk pools and using general government revenue to cover those who cannot afford to contribute (Oxfam, 2013).

Definition

Ensuring equitable access for all citizens, resident in any part of the country, regardless of income level, social status, gender, creed or religion, to affordable, accountable, appropriate health services of assured quality (promotive, preventive, curative and rehabilitative) as well as public health services addressing the wider determinants of health delivered to individuals and populations, with the government being the guarantor and enabler, although not necessarily the only provider, of health and related services.

Figure 1 Universal health coverage

Entitlement

Universal health entitlement to every citizen



National health package

Guaranteed access to essential health package (including cashless inpatient and outpatient care provided free):

- Primary care
- Secondary care
- Tertiary care



Choice of facilities

People free to choose between:

- Public sector facilities
- Contracted-in private providers

Components

The definition incorporates the different dimensions of universal health assurance: health care, health coverage and health protection. The foundation for UHC is a universal entitlement to comprehensive health security and an all-encompassing obligation on the part of the state to provide adequate food and nutrition, appropriate medical care, access to safe drinking water, proper sanitation, education, health-related information and other contributors to good health.

Basic principles

The ten principles of a system of UHC are: i) universality; ii) equity; iii) non-exclusion and non-discrimination; iv) comprehensive care that is rational and of good quality; v) financial protection; vi) protection of patients' rights that guarantee appropriateness of care, patient choice, portability and continuity of care; vii) consolidated and strengthened public health provisioning; viii) accountability and transparency; ix) community participation; and x) putting health care in the hands of the people.

All people should have access to the health services they need and yet there are wide variations in coverage of essential health services both between and within countries. For example, in some countries less than 20 per cent of births are attended by a skilled health worker, compared with almost 100 per cent in other countries.

Every year, 100 million people are pushed into poverty because they have to pay for health services directly. To reduce financial

risks, countries such as Thailand are moving away from a system funded largely by out-of-pocket payments to one funded by prepaid funds – a mix of taxes and insurance contributions.

Governments need to give higher priority to health in their budgets as domestic financial support is crucial for sustaining universal coverage in the long term. If African Union countries increased government expenditure on health to 15 per cent, as promised in the Abuja Declaration in 2001, they could together raise an extra US\$29 billion per year for health.

All countries can improve their tax collection mechanisms. They can also consider introducing levies or taxes earmarked for health, such as 'sin' taxes on the sale of tobacco and alcohol. As an example, Ghana funded its national health insurance partly by increasing value-added tax by 2.5 per cent.

Increased external support is vital. Only eight of the world's 49 poorest countries have any chance of financing a set of basic services with their own domestic resources by 2015. Global solidarity is needed to support the poorest countries. If high-income countries were to immediately keep their international commitments for official development assistance, the estimated shortfall in funds to reach the health-related Millennium Development Goals would be virtually eliminated.

UHC and the elderly

Situating elderly health in a broader framework of universal access and affordability of UHC has the potential to transform the

Figure 2 The roles of state sector stakeholders

Developing country governments

- Develop financing systems based on the four 'key ingredients' outlined by the WHO. Rather than looking to adapt European-style employment-based social health insurance, build on the lessons from the growing number of low- and middle-income countries that are making progress towards UHC
- Make equity and universality explicit priorities from the outset and avoid the temptation to start with the 'easiest to reach' in the formal sector. Those living in poverty must benefit at least as much as the better off every step of the way
- Rather than focus efforts on collecting insurance premiums from people in informal employment, look to more efficient and equitable ways of raising revenue for health from tax reform
- Move towards pooling together all government revenues for health – with formal sector payroll taxes where these exist – to maximise redistribution
- Ensure that adequate proportions of national budgets are allocated to health, in line with the Abuja target of 15 per cent of government funds
- Actively engage civil society in all stages of policy-making, implementation and monitoring

High-income country governments and multilateral organisations

- Stop promoting inappropriate approaches in the name of UHC, especially private and community-based voluntary health insurance schemes
- Take action on tax avoidance and tax evasion, which denies poor countries much-needed revenue for universal public services. Provide support for progressive tax reform in poor countries, including technical support to strengthen tax administration capacity
- Honour commitments to provide at least 0.7 per cent of gross national income as Official Development Assistance and improve aid effectiveness for health. Provide a greater proportion of aid as long-term sector or general budget support
- Support developing country governments to effectively measure and evaluate progress and outcomes on UHC, especially equity

Source: Excerpt from Oxfam, 2013



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Germany and the UK were the first countries to introduce nationwide health insurance schemes

structural conditions that hamper the well-being of the aged. The growth of the elderly population in the coming decades will bring with it unprecedented burdens of morbidity and mortality.

Living with a spouse has a significant and independent effect on health care utilisation. Elderly people who live alone as residents of old-age homes are the worst affected subgroup with very low health care utilisation. Certainly, old-age homes not only require economic support but should be provided or linked with appropriate health facilities, and a shift from old-age homes to community settings is desirable to promote health care utilisation and elderly well-being. Perhaps family members should be offered incentives (tax benefits or direct payments) for assisting elderly relatives and health care utilisation could be an important conditionality of such policies. In general, elderly people from the poorest quintile are the most disadvantaged and the probability of health care utilisation could increase significantly if they receive financial support or (fully) subsidised health care.

Issues of health and health care utilisation predominate the discourse on elderly well-being. The issue assumes policy relevance, particularly in countries with weak institutional support and limited fiscal scope for elderly well-being. Governments should consider paying for a universal pension in order to include all elderly under a social security network.

Policies for the elderly must also be gender sensitive since problems faced by old women are more critical compared to those faced by

men due to low literacy rates, customary ownership of property by men and very few women having been in the labour force during their prime age; and also because women outlive men in the same cohort. For healthy ageing, it may be useful to consider universal pensions and universal insurance for the elderly.

UHC and NCDs

The world is going through epidemiological transition, experiencing the rising prominence of non-communicable diseases (NCDs) in its health burden. Evidence-based research should be used to decide how this could be covered under UHC and prepare for cost-effective treatment. Governments should focus on building awareness and educating people about the benefits of maintaining a hygienic and healthy lifestyle that contributes enormously in preventing diseases and reduces costs of curative care. In a country where large numbers of people are uneducated, it is critical to raise awareness of their entitlement to health care and other public services, and also the benefits of various preventive health care measures.

Most of the NCDs are not curable through simple interventions and require long-term care and access to diagnostic and monitoring facilities. These necessitate more laboratory tests and specially trained doctors. So, we have little choice but to invest in the training of more doctors and strengthening public health delivery system.

Civil society contribution is also highlighted in achieving UHC (Oxfam, 2013). The key civil society responsibilities include:

- Increasing collaboration to exert collective pressure on governments and other stakeholders to push for a UHC approach that enshrines the values of universality, equity and solidarity
- Holding governments to account by engaging in policy dialogue, monitoring health spending and service delivery, and exposing corruption
- Drawing attention to cases where influential donors are promoting inequitable health financing mechanisms and hold them to account
- Working together with civil society to call for urgent action on global tax evasion and avoidance

Formal sector unions should act in solidarity with workers in the informal economy and advocate for universal and equitable health care.

Conclusion

A brief review of the history of UHC shows that, in the countries of origin of modern medicine, over the 18th and 19th centuries health services were available either as charity from voluntary institutions or on payment to providers. Disease, destitution and widespread epidemics, however, forced local bodies to intervene in ways that were considered preventive – isolation, institutionalisation, fumigation and other sanitary measures – or through labour and health legislation (Rosen, 1993).

The late 19th and early 20th century saw the evolution of other ways of payment, such as small mutual benefit societies, like the workers' contributory funds, later joined by some employers, and limited national as well as private insurances for special groups. In Britain, World War II was instrumental in the achievement of the NHS, free at the point of delivery and paid for out of general taxation, as proposed by the Beveridge Committee. Germany and France, on the other hand, continued to follow Bismarck's insurance-based system, while other European countries mixed private provisioning with one or the other of state-led NHS models.

The two extremes were the USA and Canada. In contrast, the movement for UHC in the USA was repeatedly defeated. It only conceded medical insurance for the elderly, and later the poor, in the 1960s, keeping a large population from receiving state insurance coverage.

Following the oil shocks and other crises of the 1970s, most Western countries protected their public expenditures in health, keeping it at six to eight per cent of their gross domestic product (UNDP, 2005). Canada's Health Act 1984 re-asserted its political

commitment to free and universal basic health services through a single payee insurance system administered by the public authority. It specifically discouraged financial contributions by patients, either through user charges or extra-billing (billing patients over and above the insured amount for basic services). US President Barak Obama made UHC his election agenda, and his electoral success reflects the assertion of the marginalised and the popularity of the idea of UHC among democratic Americans.

What is interesting for us in this historical experience of the West is the fact that within the welfare capitalist framework: a) there was no one model of provisioning medical care; b) that the state played a very crucial role in provisioning, financing and regulating even if it was not the only provider; c) that even through the economic crisis, state spending on health care was protected; and d) that socio-economic, political and cultural factors play an important role in shaping a country's strategy for UHC.

The question is, how have these been impacted by shifts in approach over time and what are the challenges for the future?

Endnotes

- 1 For the text of the General Assembly International Covenant on Economic, Social and Cultural Rights, see www.ohchr.org/EN/ProfessionalInterest/Pages/ICESCR.aspx [Accessed 10 April 2015].
- 2 European Observatory on Health Care Systems, 2000.

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Models of governance for the health sector

Jenny M. Lewis

Governance refers to state–society interactions. The state steers society through control of critical resources and by co-ordinating interests, rather than through having authority based on legal powers. Some previous typologies and attempts to describe governance change indicate that institutional, political and regulatory dimensions will be important (Treib et al., 2007). Others have noted that these are interrelated: ‘Institutional structures affect configurations of political power which in turn constrain the choices of types of regulatory tools used in specific circumstances’ (Howlett et al., 2009: p. 386). Another study by Capano et al. (2012) examined governance change as a contrast between monocentric (state-centric, hierarchically organised, legally prescribed and mutually exclusive jurisdictional mandates) versus polycentric (decentralised, multi-level, multi-actor) modes of governing and the three dimensions outlined above to assess governance change.

A governance change framework

These studies provide some starting points for a comparative examination of governance change. First, the shift from monocentric to polycentric arrangements is widespread across both nations and policy sectors. Second, and related to the first point, the political dimension (the balance of power between state and non-state actors) provides insights into governance arrangements in comparative terms. Third, the institutional context is a significant structural constraint, with other dimensions nested within it. Finally, it is clear from attempts to classify governance change that the initial starting point of any nation matters a great deal.

Policy instruments are central to governance change. They are often regarded as solid entities, like regulation or output-based funding. But policy instruments can be both technical and social, shaping relations between the state and society (Lascoumes and Le Galés, 2007). This broadens the view of instruments from concrete tools (e.g. funding, legislation) to a broader range of devices that orient relations between state and society.

The realm of ideation, which is often ignored in the literature on governance change, is also important in analysing change across nations with regard to a particular policy sector. Each policy sector has a core set of ideas that underpin it, affecting policy development and governance shifts. Examining ideational change means examining a sector’s foundational ideas and assessing whether these have been challenged.

Hence, to analyse governance change, this article proposes a framework with three interrelated dimensions:

- 1. Institutions** – the historical and sociological institutional features of a state’s set of governing arrangements
- 2. Politics** – the relations of power between state and non-state actors, and how states negotiate and communicate with important actors
- 3. Ideation** – the dominant ideas underpinning a policy sector that draw boundaries around what is discussed and who has legitimacy

Health policy

The health policy sector is distinguished from others by its salience with the public (because matters of life and death are involved), its large (and increasing) share of public budgets, and the presence of large and powerful professions. It has tended to develop from fragmented and unstructured beginnings, into densely populated, self-organising systems (Lewis, 2005). Governments have increasingly tried to steer the sector as they have become more involved in financing health care, and as those costs have escalated. A major driver of reform in many wealthy nations has been concern about the rising costs of health systems, associated with apparently unlimited demand and ageing populations.

In relation to the three intertwined dimensions of the governance change framework, this article concentrates on universal health care (institutions), the relationship between the state and the medical profession (politics), and models of health and illness (ideation). The two nations that are compared represent similar health systems in regard to them both having universal health care, a similar mixture of public and private funding and provision of health care, similar foundational models of health, and similar challenges associated with increasing demand for health care, partly associated with an ageing population. However they also have interesting differences in terms of how state–profession relationships are constructed, the type of universal health care reforms that have been introduced and discussion about changing to a new model of health. Figure 1 provides a summary of the analysis that follows.

Institutions

Crucial decisions become enduring features of the rules of governing in different nations and policy sectors, and these establish the context in which subsequent decisions are made. All new policy is bound by the legacy of these institutional histories. With regard to health policy, institutional analyses have been

This is an abbreviated version of a book chapter that is currently in press: Lewis, J. M. ‘Governance change across policy sectors and nations’. In: T. R. Klassen, D. Cepiku and T. J. Lah, eds, forthcoming. The Routledge Handbook of Global Public Policy and Administration. New York: Routledge.

convincingly used to explain how different nations have ended up with disparate health care systems or whether they have introduced national health insurance.

Australia, as a federation of states and territories, has more dispersed and contested authority than the unitary national system of the Netherlands. It also has a Westminster parliamentary system with two dominant parties, which is quite different to the multi-party coalition governments of the Netherlands, which must work together in order to achieve their objectives. This difference is important in each state's version of national health insurance and related reforms.

In addition, a classification of welfare state types (Esping-Anderson, 1990) is useful for highlighting the difference between Australia (a 'liberal' welfare state, with means-tested assistance and modest transfers to low-income citizens) and the Netherlands (a corporatist welfare state, where the granting of social rights was hardly ever a contested issue). Based on this, the health care system in the Netherlands could be expected to have a greater emphasis on social solidarity.

With regard to national health insurance, the Netherlands has had large friendly societies operating since the late 19th century on a voluntary basis, and mandatory insurance for lower income earners since 1941. The system in the Netherlands has its origins in World War II, well in advance of the idea that the welfare state was facing a fiscal crisis. The failure to establish a national health service (NHS) in Australia along the lines of the British service in the post-war period meant that the universal scheme finally introduced in 1983 was established in the face of growing concern about public budgets (Lewis, 2014).

In 2005, with little political debate or public opposition, a new form of health insurance was introduced in the Netherlands. All residents now have to take out basic health insurance with an insurer of their choice and insurers have to accept any applicant. These changes were market inspired, but the country has not moved away from its social solidarity principle, with tight regulation, oversight of competition and safeguards for care standards continuing to ensure equity (Jakubowski et al., 2013).

This reform also illustrates that in the Netherlands, while changes in political coalitions occur, these do not appear to have much impact on the overall direction of reform. An analysis of Dutch health care reforms in the period 1987–2007 by Okma and de Roo (2009) concluded that, although the governing coalition changed seven times over this period, incoming coalitions either carried on with implementing their predecessors' plans, or at least rarely undid the reforms already undertaken.

In contrast, the Australian system lends itself to policy reversals. The initial universal health insurance scheme, Medibank, had barely been introduced when the Labour government was dismissed in 1975, and it was effectively abolished by the new conservative government. Just as the population had returned to voluntary health insurance, another Labour government was elected in 1983 and Medicare – the new universal health insurance scheme – was introduced. Reforms aligned with changes in national government have continued in Australia, although these have more recently been smaller moves.

Here we can see two different types of incrementalism in action – a series of adjustments that result in substantial change in one direction (Dutch), compared to a series of adjustments in different directions that amount to reversals (Australian). In addition, while the impetus for reforming health systems in both cases has been cost containment and the idea that greater private sector involvement and competition is needed, change in the Dutch case continues to reflect the solidarity principle, regardless of the government in power. The Australian approach remains both more individualistic and more likely to include policy reversals.

Politics

There is no better focal point for examining the political dimension of governance change in health than the relationship between the state and the medical profession. In the health sector, policy-making is shaped by the self-governing capacity of the medical profession, which in turn is related to how state institutions such as health insurance are structured. One important consideration is whether the corporate structure of the professions is more internal or external to the state. In Australia the medical profession has functioned as an external pressure group, as in other Anglo nations, with powerful professional bodies. In many European countries the profession has been much more integrated with the state. In the Netherlands there is a long history of a limited number of associations being granted the legitimacy necessary to be able to pursue their collective self-interests through negotiations with the state (corporatism). In Australia, professions have largely developed externally to the state and then functioned as pressure groups, rather than being internal to the state apparatus.

Over the last four decades, many health policy reforms that have sought to restrict or stop the growth in expenditure on publicly funded services have presented direct or indirect challenges to the ideal of professional control and autonomy by recasting the work of professionals. Some have argued that the medicine–state alliance is being displaced by managers as the custodians of cost

Figure 1 Governance change in the health sector

Dimension	Australia	The Netherlands
Institutions (national health insurance)	Multiple changes in different directions Individualism	Multiple changes in same direction Solidarity
Politics (state–profession relationship)	Little change in professional authority External to state	Some reduction in professional authority Internal to state
Ideation (foundational model of health)	Small attempts to shift to social determinants Biomedical	Little discussion of social determinants Biomedical

control and performance measurement. How has this played out in Australia and the Netherlands?

During the 1990s in Australia, new organisations were established that fragmented the profession to some extent, and a number of challenges to the medical profession have come from governments, insurers and health service delivery organisations in the search for ways to contain costs. But these do not represent a general loss of authority by the profession (Lewis, 2014).

In the Netherlands, the state reconfigured its corporatist relationships in the 1990s in order to reduce the number and size of the bodies involved in policy-making, and to eliminate stakeholder representation. This reduced the ability of provider (including professional) interests to intervene at multiple points, as is illustrated by the relatively easy passing of the 2006 Health Insurance Law (Okma and de Roo, 2009). However, the Dutch consensual style of policy-making (the Polder Model) has not disappeared and the state–medicine relationship in the Netherlands remains strong through neo-corporatist structures.

The manipulation of state–profession relationships is clear to a greater degree in the Dutch case than in Australia, reflecting the more integrated state–profession relationship and broader corporatist structures in the Netherlands, and the more separated position of the medical profession in Australia.

Ideation

Ideation is used here to refer to a policy paradigm as an overarching set of ideas that specifies how problems are perceived, which goals might be attained and what techniques can be used to reach them. Individuals with conflicting policy positions still share understandings and a more realistic view of the sector they are interested in. Ideas are important in policy change in three ways (see Béland, 2010): they help define the social and economic issues of the day; they are important as assumptions (paradigms) that guide the development and selection of policy choices; and they are an important framing device that helps actors legitimise policy decisions.

Struggles over health policy clearly involve ideas about health that support particular actors and shape the range of possible policy options. There is an obvious link between the power of the medical profession and how health is conceived (Lewis, 2005). What are the fundamental assumptions about health? The dominant paradigm is biomedicine, which sees the human body as a machine that sometimes breaks down and needs to be fixed. This leaves little room for the social, psychological and behavioural dimensions of illness.

The ‘social determinants of health’ approach poses a challenge to biomedicine as the dominant idea underpinning the sector. This focuses on addressing the social, economic and cultural conditions that produce ill health, and it has been emerging since the 1970s. It casts health as a product of society rather than of individual attributes and behaviours. The World Health Organization (WHO) began calling for a reorientation towards disease prevention and health promotion strategies in the 1970s. In the late 1990s and early 2000s, policy in some nations began to emphasise that the multiple influences on health from the social and environmental contexts are crucial, with inequities in society contributing significantly to unequal health outcomes.

In Australia, there is mostly a reliance on the restoration of health or curative care. Apart from the introduction of community health programmes in Australia in the 1970s, there has been relatively little that suggests a national-level agenda to move away from traditional, biomedical concerns, towards more inclusive and societal-based approaches to health policy (Lewis, 2014). A national preventative health agency was established in 2011 as a partnership of federal government, state governments and the private sector, but it focused on strengthening individual responsibility for prevention. A stronger sign of a social-determinants approach was the application of the WHO’s (2005) framework to the Australian context of ‘closing the gap’ – an initiative to improve the situation of indigenous Australians. However, the national government elected in 2013 abolished the national prevention agency and the partnership agreement (Lewis, 2014).

In the Netherlands, there is scant evidence of discussions about health promotion and the social determinants. Private health insurers have made little progress on this front, focusing instead on acute hospital services (Stoelwinder, 2008). This is likely related to preventive health care being mainly provided by public health services. In addition, disease prevention, health promotion and health protection fall under the municipalities (Schäfer et al., 2010).

In summary, the challenges to biomedicine over the last four decades from the social determinants of health have been muted in both Australia and the Netherlands. There have been some visible attempts at the national level in the Australian case, particularly in relation to indigenous Australians. The lack of visibility of this in the Dutch case likely reflects that it largely falls outside national policy, although perhaps it does not sit easily in a context where social solidarity is regarded as the norm.

Conclusion

Existing institutions, different political systems and societal traditions strongly shape governance change. Two different versions of incremental policy adjustments are neatly illustrated by the case of insurance changes, with the Dutch moving steadily in one direction while Australia oscillates one way and then the other. Changes to the state–profession relationship are larger in the Dutch than the Australian case, reflecting the more integrated role of the professions. Australia has (sporadically and to a small extent) embraced the need for a social-determinants approach to health, while the Netherlands has paid little attention to this, at least at the national level. This study of governance change in the health sector demonstrates how two nations, faced with similar challenges but founded on different institutions, politics and ideas, respond differently.

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Essential ingredients for UHC: Political and technical leadership

Amanda Folsom

In recent years, countries around the globe have committed to striving for universal health coverage (UHC) to ensure effective coverage of essential health services for all populations – young and old, healthy and sick, rich and poor – without risk of financial impoverishment. Realising the goal of UHC depends on strong political and technical leadership. As David de Ferranti, president of the Results for Development Institute (R4D), has noted, implementing UHC is often 90 per cent about politics and ten per cent about technical design.

Countries such as Brazil, Chile, Mexico, Thailand, Rwanda and Turkey have achieved – or nearly achieved – UHC and serve as an inspiration to the next wave of countries on the path to UHC. Behind these examples of success are stories of strong leaders and institutions that established bold visions and clear roadmaps for achieving UHC in their countries. They also built the technical knowledge and developed the implementation methods needed to realise their visions. Through our work with the Joint Learning Network for Universal Health Coverage (JLN) and our previous work with the Ministerial Leadership Initiative for Global Health (MLI), we have learned that progressing towards UHC requires strong political leadership as well as technical expertise and implementation ‘know-how’.

Health reform is extremely complex and countries face myriad political and technical challenges on the path to UHC. For example, country leaders need to make the case for, and secure, increased public spending on health care, ensure that care is delivered in an effective and efficient manner, and stay accountable to their populations, providers and partners (who often have conflicting interests). Issues of health reform are frequently inter-connected, meaning that reforming one dimension can have a ripple effect on many other aspects of the health care system. UHC can also take many years – sometimes decades – to achieve.

A shifting landscape

Alongside the UHC movement, countries face demographic, epidemiologic and health financing transitions that present both challenges and opportunities. Health spending is increasing, largely due to growing demands for health services as populations become wealthier, and so is the supply of health services, due to new treatments and interventions. Surprisingly, the growth in populations over the age of 60 is not a strong factor in explaining the growth in health expenditure.

As discussed at the January 2015 Commonwealth Secretariat meeting on the right to health in the context of UHC, countries need ‘progressive public financing’. The good news is that countries’ health spending is increasingly pooled, with diminishing reliance on direct out-of-pocket payments. This trend presents

opportunities for greater equity and improved health outcomes (Savedoff, 2012).

In Ghana and India, two Commonwealth countries that are also founding members of the JLN, there have been increases in government spending as a percentage of total health expenditure (by five per cent in Ghana and three per cent in India in the period 2004–11) and reductions in out-of-pocket spending since reforms were implemented.¹ These countries rely more heavily on tax revenues (for example, Ghana’s value-added tax and India’s general government revenues). As countries dedicate more public resources to achieving UHC, the need for strong leadership and stewardship becomes even more critical.

Leadership for UHC

Strong political leadership is an essential ingredient for policy reform victories. At the ministerial meeting on UHC organised by the WHO and the World Bank in February 2013, many country delegates spoke about the importance of high-level political commitment for UHC. However, we often find that the need for strong leadership and stewardship in UHC receives little attention or investment.

Through our work with five MLI countries (Ethiopia, Mali, Nepal, Senegal and Sierra Leone), we found that ministries of health are full of talented leaders whose talents often are not harnessed effectively. Ministries of health are frequently overwhelmed with responsibilities and competing priorities, and are significantly understaffed and under-resourced. Reforms are often derailed or delayed due to long political processes, strong stakeholder influence and leadership transitions (among the five countries in MLI, tenures of health ministers averaged less than two years). All these challenges meant that policy reform delays were inevitable and achieving measurable progress could take years. Ethiopia’s Federal Ministry of Health sought to combat these challenges through a bold strategic and performance-management initiative led by the Minister of Health and his senior team (see Box: ‘Ethiopia’s Balanced Scorecard initiative’).

Recently, a group of African leaders participated in a P4H Social Health Protection Network Leadership for UHC programme designed to equip leaders to better respond to the complex tasks and conflicting interests they face when working towards UHC. Common leadership challenges this initiative documented include:

- Different stakeholders sometimes having their own UHC-related strategies and lack a shared vision
- Co-operation among the relevant ministries often being limited and roles of key institutions sometimes being unclear or even conflicting

- Communication and co-operation between the technical experts and political leaders responsible for UHC not being sufficient
- Policy-makers not always being aware of the challenges faced by those who have to implement their policies at the frontline (for example, at the hospital or clinic level)
- The flexibility and the ability to make adjustments in the policy reform process sometimes lacking. This requires reliable information, openness to acknowledge problems and willingness to work towards solutions

We've learned the importance of political leadership for UHC and the need to invest in the development of leadership of the senior teams that support the minister, the minister's trusted advisors and the next generation of leaders. We've also learned the importance of building cross-departmental and cross-ministerial mechanisms to share evidence, have regular policy dialogue and work towards efficient, evidence-based policy reforms and processes.

While leadership for UHC is largely a domestic issue, development partners have a role to play. In 2011 leaders from five ministries of

Ethiopia's Balanced Scorecard initiative

'Building strong health systems is heavily dependent on the ability of ministries of health to lead and take ownership of the reform process.'

– **Tedros Adhanom Ghebreyesus, former Health Minister at the Federal Ministry of Health, Ethiopia**

In 2008 Ethiopia's Federal Ministry of Health (FMOH) joined the Ministerial Leadership Initiative for Global Health (MLI) to enhance leadership and management of the health system. The Minister of Health and his senior team elected to design and implement a strategic planning and management system (called the Balanced Scorecard) that would align objectives and priorities for health services at the national, regional and local levels.

To create Ethiopia's health sector Balanced Scorecard and 'cascade' it through all levels of the health sector, the FMOH organised workshops and training with senior FMOH leaders, regional and hospital health personnel, and CEOs and managers across all government sectors. Participants were able to visualise how the Balanced Scorecard system could help them effectively monitor and measure the performance of the health sector and of individual units.

As a result of implementing the Balanced Scorecard, Ethiopia's health system has been able to track and respond to incidences of preventable communicable diseases and malnutrition much more easily. Today, the FMOH and other units of the health sector have a common vision, mission and set of core values that are the foundation for Ethiopia's UHC strategy and ongoing health system strengthening. According to one senior FMOH leader, such alignment and sense of ownership within the health sector has allowed for a consistent flow of creative and innovative ideas between talented leaders, and has increased participation from all levels of the health sector.

For more information on the MLI Ethiopia Program, see: www.ministerial-leadership.org/country/ethiopia/program-focus.

health signed a joint Call to Action recognising the essential role of leadership in improving the health of populations. Leaders of health ministries called for three practical steps for country-led development:

1. Government leaders, including ministers of health and their senior teams, must be clear about their priorities
2. Development partners must be flexible and willing to listen and follow the priorities set by country leaders
3. Countries must be given greater opportunities to learn from one another and develop ongoing relationships among leaders

Technical expertise and implementation 'know how'

In the JLN, the practitioners in ministries of health and other key agencies are the experts. They are the ones developing plans to align multiple fragmented health financing schemes; designing and costing benefits packages; defining criteria for identifying and enrolling vulnerable populations (such as the poor); reforming provider payment systems to encourage delivery of primary health care; developing systems for quality improvement; and designing information technology systems and core business processes to enable data analytics and more robust performance monitoring.

Practitioners must have resources and connections to be effective in their roles, and the JLN is working to ensure this need is met. They need to be able to find the relevant evidence and experience from other countries quickly. Often the type of knowledge they need is tacit and implementation focused, and not documented in the literature. Learning from peers through networks and communities of practice, such as the JLN, can help fill knowledge gaps and empower these leaders with the know-how they need to move forward.

We have also seen that facilitating dialogue between policy-makers and practitioners can have real policy- and programme-level impact. For example, when a group of practitioners and a parliamentarian from Ghana worked together to identify key bottlenecks and determine solutions for expanding coverage of the more than seven million poor people in the country, this swiftly led to a legislative amendment requiring annual reporting on equity in coverage in Ghana. In India, we've seen the power of a sub-national joint-learning forum of state-level practitioners facilitated by the World Bank in close collaboration with the government. This learning forum has facilitated collaborative work across states to address common challenges and co-develop practical new solutions, such as a collaboration on how to cost health services to help set new provider payment rates.

As the global movement towards adopting UHC as a post-2015 goal gains traction, practitioners will need more opportunities to exchange first-hand, experiential knowledge of how to implement policies and programmes that will advance their countries towards UHC. Peer learning platforms like the JLN can help connect practitioners with their peers, streamline their expertise, build practical knowledge as a global public good and help countries around the globe achieve UHC.

Endnotes

- 1 WHO Global Health Expenditure Database. Available: <http://apps.who.int/nha/database> [Accessed 7 April 2014].

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Universal health coverage in Singapore: An ethical reflection

Calvin Wai Loon Ho

On 29 January 2015 Singapore's parliament passed a law that will introduce universal lifelong health insurance coverage. At present, about seven per cent of the population is uninsured. This figure includes an estimated one in four citizens aged 65 years and over; low-income or unemployed Singaporeans whose insurance coverage has lapsed due to inability to make premium payments; younger Singaporeans or permanent residents who will be covered once they start work; those excluded by pre-existing conditions; and those who have opted out of the health insurance scheme for various reasons. By the end of 2015, however, universal health insurance coverage will be achieved for all Singapore citizens and permanent residents.

This article discusses the transformation of Singapore's national voluntary opt-out insurance for financial protection against catastrophic illnesses (or MediShield) to a compulsory insurance with universal health coverage (UHC) for life (or MediShield Life). This change is important for a number of reasons. Singapore's health care system is relatively distinctive as a kind of quasi-market system that attempts to promote individual responsibility over one's health, supported by an enabling state. As the out-of-pocket part of health care expenses is essentially paid for by the individual (through Medisave¹, for instance), competition among service providers is relied on to keep costs down, ensure efficiency and enhance quality (Haseltine, 2013). While personal responsibility remains the key characteristic of Singapore's health care system, the introduction of MediShield Life represents a more explicit recognition of more communal values, like solidarity and fairness.

What is clear from the experience of Singapore is that, while individual responsibility was not the only drive to enable universal coverage, it did (together with other relatively more communal principles) create – after 50 years of nation building – the environment for this to be achieved.

MediShield

The philosophy of self-reliance and individual responsibility evident in Singapore's health system (see Box: 'Singapore's health system') percolates to Medisave, a mandatory savings account scheme. A working Singaporean contributes seven to 9.5 per cent of their monthly salary into this personal account dependent on age. Savings can be used to meet the health care expenses of the account holder, including hospitalisation, certain vaccinations, health screening and other outpatient services, and home-based hospice services. Responsibility is not limited to the individual, but shared with their family. Accordingly, if an individual is unable to meet the cost of medical care, their family is expected to be the first line of support. On this rationale, a family member is able to draw on their Medisave account to meet the health care expenses of their dependents.

Along with a legal requirement for adult children to care for their aged parents, some regard these policies as reflective of Confucius' precepts that are deeply embedded in the predominantly Chinese population of Singapore (Lim, 2012). What is clear from existing arrangements is that health care costs should not be borne exclusively by the state, but must first and foremost be the responsibility of the individual and their family. The private and voluntary sectors also have a role to play in addressing the challenge of escalating health care costs (Lim, 2013: p. 24). For the indigent, Medifund has been set up as a public endowment fund to serve as a safety net for Singaporeans who cannot afford to pay for subsidised bill charges. In addition, a capital sum of S\$500 million was set apart as Medifund Silver to provide aid specifically to needy elderly Singaporean patients. Other schemes, such as the Community Health Assist Scheme, are available to enable Singaporeans from lower- and middle-income households to receive subsidies for medical and dental care.

Medisave (or Medifund, for the indigent) may also be drawn on to pay the premium for MediShield, which was established in 1990 as a voluntary opt-out national insurance scheme to reduce the financial burden of catastrophic illness. MediShield covers hospitalisation expenses in restructured hospitals and approved outpatient treatments, such as kidney dialysis, chemotherapy and radiotherapy for cancer treatment. More recently, a severe disability insurance known as ElderShield has been introduced to enable those insured to risk-pool against the financial risks of such a condition. Coverage under this scheme is at best supplementary as it is unlikely to be adequate in the light of rising costs and the very real prospect of long-term care extending beyond six years.

Singapore's health system

Singapore's health system gives emphasis to self-reliance, individual responsibility over one's own health and collective responsibility in maintaining health care affordability. This is evident in its predominantly private primary health care sector, where private general practitioners (GPs) provide about 80 per cent of primary health care needs. Subsidised primary care services are available at public health care centres (or polyclinics), which provide about 20 per cent of the primary care services to all citizens, with certain groups (such as those under the age of 18 or above the age of 65 years) receiving greater subsidy. To discourage over-consumption, most Singaporeans are expected to pay for their own primary health care needs (with some subsidy from employment insurance, where applicable).



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MediShield Life will cover people with pre-existing conditions, who were not included in the old MediShield scheme

Additional insurance coverage may be purchased from a private insurer as a Medisave-approved Integrated Shield Plan (ISP), an add-on to MediShield, the premiums for which are payable using Medisave funds. Those who have purchased ISPs could be understood as paying higher premiums in order to obtain higher payout, better class of stay in hospitals and higher coverage. Almost a third of the current insured have subscribed to ISPs. Similarly, ElderShield Supplements may be purchased from private insurers to enhance disability benefits coverage. However, a number of treatment items, procedures, conditions, activities and their related complications are not covered by MediShield and cannot be claimed. These include any pre-existing illnesses, diseases or impairments from which the insured member was suffering prior to the commencement of his MediShield cover, except where such conditions have been accepted by the Central Provident Fund (the administrator of the national social security plan) in writing, and treatment of any condition arising from or due to HIV/AIDS.

MediShield was not without its share of criticisms and three major ones have been documented recently (ibid: pp. 70–75). First, the non-coverage of certain population groups greatly increased the financial burden of the uninsured and their families. Most evident was the initial exclusion of newborns with congenital diseases, as they were also excluded from coverage for downstream complications arising from their pre-existing illnesses. Second, the actuarial practices of MediShield were regarded as too ‘commercial’. Premiums are computed (and risk-pooled) by age

bands, with the result that the elderly were faced with the highest premiums. Third, an open-ended co-insurance meant that there is no limit to out-of-pocket payment for a substantial hospital bill.

From MediShield to MediShield Life

The MediShield Life Review Committee (MLRC) was established in November 2013 to review and study the proposed parameters for MediShield Life, an initiative that was first announced by Prime Minister Lee Hsien Loong at the National Day Rally in 2013 to provide lifetime health insurance coverage for all Singapore residents.² Since its establishment, the MLRC has held more than 30 public meetings. It reached a consensus on the need to strike a balance between higher premiums and affordability on the one hand, and sufficient coverage for all citizens over their lifetime on the other. Generally speaking, the MLRC has identified three responses to a number of concerns relating to increasing health care costs:

1. Existing benefits should be enhanced in terms of an increase in payout in order to reduce out-of-pocket payment
2. Coverage should be for life, making health care more affordable for the elderly
3. Coverage should apply to all Singaporeans and eligible permanent residents, including those living overseas

Preliminary recommendations on the benefits parameters of MediShield Life were made by the MLRC in January 2014. The

government's response was essentially positive, and similarly acknowledged that 'a balance will need to be struck between the enhanced benefits and higher premiums, to ensure that the scheme remains sustainable and affordable for Singaporeans, and to guard against inadvertent over-consumption or over-provision of health care services' (MoH, 2014). The inclusion of those formerly uninsured, including those with pre-existing conditions, indicated that the government was prepared to take on a share of the cost, on the premise that 'all of us can shoulder a small part as a society to support and include this group' (ibid), and help vulnerable groups with their premiums.

On 5 June 2014 preliminary proposals were put forward as formal recommendations of the MLRC. Following their acceptance by the government, the main essence of these recommendations is now embodied in legislation.

Higher claim limits will be established for the national health insurance system, while co-payments will be lowered. In order to keep premiums affordable, co-payment could not be completely removed and no change has been proposed to deductibles. The annual claim limit has been raised and the lifetime limit on medical claims will be removed. Substantial increases in claim limits for cancer treatments (including chemotherapy) have also been proposed. In addition, coverage will be widened to cover the medical claims of an insured person throughout the entire course of their life (subject to an annual limit). Coverage will extend to all eligible citizens and permanent residents who are not members of MediShield, and will include those who are already sick.

Distributive justice

The importance of fairness becomes evident in the challenge of maintaining a collaborative social cohesion over a long period of time. More specifically, the extent of contributions and distribution of benefits must be fair, and should be in a manner that maximises utility for all. Fairness and equity have been recognised as having a focal role in the context of UHC (WHO, 2014: p. 7). As an initiative led by the World Health Organization, UHC has the goal of increasing affordable access to a wide range of health and preventive services, especially to the worse off in a given population. While centrally concerned with financing, UHC relates to coverage in general and hence, all barriers to coverage.

In working towards UHC, all countries are encouraged to expand priority services, include more people and reduce out-of-pocket payments. Policies that are enacted to achieve these goals should be optimal both from the perspectives of fairness and benefit maximisation. Drawing from an essentially Rawlsian framework of distributive justice, fairness (taken to be synonymous with equity) gives emphasis to pro-poor policies, in terms of both distribution and contribution. Similar in effect to solidarity, fair distribution requires coverage and use of services to be based on need, and priority should be given to policies benefiting the worse-off groups. In contrast, fair contributions to the health system should be based on ability to pay and not by need (ibid: p. 8).

Certain adjustments to premium settings will also be made. Premiums will be comparatively high among those who are young and healthy, as part of the contributions will be used to offset the even higher premiums that they will need to pay when they get older. This offset is currently taken to commence when an insured person reaches 70 years of age, and ranges from \$30 to \$449 a year, based on age of entry into the insurance plan. The MLRC has recommended for the offset age to be brought forward to 65 years, when most people would have stopped working.

A critical inclusion not addressed by the MLRC has been the extension of MediShield Life coverage to HIV carriers and AIDS patients. Currently, these individuals are unable to get insurance coverage, while those already insured fear that their insurance policies will be voided if they make a claim.

The financial cost of including those with pre-existing conditions (including HIV carriers) into MediShield Life is expected to be high, as they are likely to make claims from the moment they enter the insurance plan. Consequently, it would be fair for these individuals to pay a higher premium, which the MLRC proposes to be an additional 30 per cent on top of the premiums for their age group for a period of ten years. The added financial burden on existing members of the plan should not exceed three per cent of their current premiums. Even with this cost sharing, the MLRC was of the view that the increased collection will not cover even half the estimated cost of the widened coverage and the additional financial burden will have to be underwritten by the government.

The government has announced that two-thirds of insured households with per capita family income of up to \$2,600 a month will be provided with (possibly permanent) premium subsidies. A separate set of 'transient' subsidies over a period of four years will be applicable to all insured. Those aged 65–79 years will get some subsidy for their premiums, regardless of income level. Medisave top-ups have already been announced for the 'Pioneer Generation' (or those aged 65 years and older in 2014) over the entire course of their lives in recognition of their significant contributions to nation building as Singapore celebrates its 50th year of independence in August 2015.³ Other benefits include Medisave top-ups, cash assistance for those with moderate to severe disabilities, MediShield Life premium subsidy and subsidies for outpatient treatment for the indigent.

To facilitate the transition from MediShield to MediShield Life, the maximum coverage age has been extended from 75 to 92 years of age, from March 2014. Similar top-ups over a period of five years have also been announced for those aged 55–64 years in 2014. The premiums of those who are aged 80 years and over will be entirely paid for by the government through subsidies and Medisave top-ups.

Ethical lessons from Singapore's experience

Lincoln Chen and Kai-Hong Phua indicate that 'the major lesson from Singapore is the need to constantly rebalance failures of both the market and the state' (Chen and Phua, 2013: p. 931). One may perhaps extrapolate from this view to a more general proposition that a health system like Singapore's should not be defined exclusively by a single principle. Clearly, solidarity needs to

be invoked, as universal coverage will not be financially sustainable without the intervention of many different stakeholders and especially the state. This message was unambiguously conveyed by the government's call for all to shoulder part of the cost as a society to support those in need.

Finally, one's understanding of individual responsibility must in turn be informed by both principles of solidarity and fairness – not in an atomistic manner, but as a person inextricably embedded in multiplicities of social relations and contexts. In its review, the MLRC noted that certain preferred trade-offs were not sustainable. For instance, it would not be possible to provide those who stay healthy with lower premiums and lower deductibles. In the public meetings, the MLRC found that most people accept the need (and responsibility) to pay higher premiums in order to be protected against large health care costs. In this respect, we find all three principles closely intermeshed. A further insightful observation of Chen and Phua (2013) is that (perhaps ironically) Singapore's capacity to achieve UHC could be attributed to its focus on wider social determinants that have no direct link to health. As they have noted, the early national priorities in Singapore were on political unity, developing a prosperous economy and having an efficient and corruption-free government. From this vantage point at least, the road to achieving UHC has in reality been reliant on collective interests and values, even if this is not explicitly acknowledged.

Endnotes

- 1 Medisave is a personal medical savings account for out-of-pocket health care expenses, financed by mandatory employee and employer contributions (as a percentage of the wage).
- 2 The Prime Minister's National Day Rally Speech is available at: www.pmo.gov.sg/mediacentre/prime-minister-lee-hsien-loongs-national-day-rally-2013-speech-english.
- 3 The 'Pioneer Generation' is defined as living Singaporeans who: i) were aged 16 and above in 1965 (aged 65 and above in 2014); and ii) obtained citizenship on or before 31 December 1986.

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The post-2015 challenge: A short report on the Singapore Ministerial Meeting

Defining the role of universal health coverage (UHC) in the post-2015 sustainable development agenda is a key topic of interest for WHO and many countries globally. Singapore hosted a Ministerial Meeting on Universal Health Coverage on 10–11 February 2015 in order to galvanise support for UHC efforts, to deepen and broaden the conversation around UHC, and to build the knowledge and enablers necessary for its implementation.

The meeting was attended by ministers and high-level representatives from 16 countries, including six member states of the Commonwealth (Australia, Bangladesh, Brunei Darussalam, Malaysia, New Zealand and Singapore). The Prime Minister of Singapore, Lee Hsien Loong, gave the opening address and the Director-General of the World Health Organization, Dr Margaret Chan, delivered the keynote speech.

During the one-and-a-half-day meeting, alongside a ministerial round-table session, four main panels were convened, comprising academic speakers' presentations and individual countries' experiences as presented by ministerial delegates and robust discussion sessions. The panels focused on key issues around implementing UHC:

1. Infrastructure, Manpower and Financing for Delivery of Universal Health Coverage
2. Ensuring Access for All: Social Determinants, Provision and Financing
3. Challenges for Ageing and Fiscal Sustainability for Universal Health Coverage
4. Non-Communicable Diseases and Universal Health Coverage

The following are several key insights that emerged from the meeting.

While common challenges – such as rapidly ageing populations and an increasing burden of chronic non-communicable diseases (NCDs) – that will increase demand for health services exist, health and health financing systems to deliver UHC can be diverse, and must be designed to meet the unique challenges and opportunities facing individual countries. They should be tailored to the social, economic and health context of each country, and designed to be affordable and sustainable.



A multi-sectoral approach is needed to tackle sedentary lifestyles and unhealthy diets, to reduce risk factors for NCDs. Pictured: Joggers in Singapore's downtown area – the country is recognised as one of the best cities in Asia for running

To implement UHC, the conversation about access and coverage must move beyond financial protection, to include infrastructure, human resources and service provision. Infrastructure must be designed, and in some cases reoriented, to meet the pressures presented by demographic and epidemiological shifts. Training and development of human resources is key, as UHC increases pressures on the health care workforce. Engagement and value alignment of health care workers is essential for sustainable UHC. A comprehensive health system is needed, based on strong primary care, with robust referral pathways to secondary and tertiary care.

Implementing UHC in developing economies requires innovative models for financing and delivery. A balance needs to be struck between competing forces in order to achieve sustainable UHC: between social responsibility and individual accountability for health and health care financing; between public and private financing and provision; and between managing the increase in demand due to expanding health technologies and leveraging these technologies to improve system efficiency.

Rapidly ageing populations, especially in the Asia-Pacific region, threaten to put tremendous strain on the health care system, the economy and the sustainability of UHC. A focus on active healthy ageing, ensuring adequate access to services, addressing multiple comorbidities and enabling healthy environments are needed to ensure that an increase in healthy life expectancy is seen to match the increases in overall life expectancy.

The increasing prevalence of chronic NCDs, driven by the globalisation of sedentary lifestyles and marketing of unhealthy products, presents challenges to the sustainability of UHC. The health sector has a role to play in addressing these conditions – strong preventive health services and primary care are essential to prevent and treat NCDs. However, the health sector on its own cannot sufficiently address the challenges of NCDs. Multi-sectoral co-operation to encourage prevention and health promotion over the life course is essential to address risk factors for NCDs, such as smoking, unhealthy diets and sedentary lifestyles, and their underlying social and structural drivers.

As the Singapore Minister for Health, Mr Gan Kim Yong, summarised in his closing remarks:

'... Universal coverage will remain relevant, covering three very important areas.

'The first is ensuring that health care will always be affordable for people – particularly the middle- and lower-income, so that we can level up their access to health care services. It is also important for us to ensure that, as we introduce universal health care coverage, it is sustainable over the long term.

'Secondly, we also talked about the accessibility and how we can invest in infrastructure, not just for today but for the future; how we can invest in the intermediate and the long-term care, not just at the acute hospitals level; how we can ensure that we have sufficient manpower – i.e. the talents and professionals to deliver universal health coverage. It is not just about the financial side, but also about the access to capacity. We talked about whether the doctors and physicians are part of the solutions, or whether they are part of the problem. I would rather turn around the question the other way, and say how do we make them part of the solution. We can think along that line and we will have a better, strong and robust universal health care system.

'Finally, as part of UHC, we talked about not just capacity and finances, but also the quality and the outcome of our universal health care system. How can we measure this outcome? How can we measure the progress of UHC, more than just in numerical numbers, finances and dollars and cents? As others have mentioned, it is also important for us to bear in mind that, in order for UHC to be effective, different parties and stakeholders have a role to play, such as the government, the individual, the industries.

'And there is also one underlying issue, which is to ensure that our universal health care system is affordable in the long term. One key consideration is to ensure that our economy continues to grow, continues to remain vibrant and robust, so that all our countries, all our governments will have the resources to implement universal health care; and so that all our people have the income and employment to help them afford health care. In fact, employment and economic growth is the key driver to our universal health care and we have talked about how good employment, good access to education, good housing and basic sanitation, and so on, will allow us to help achieve universal health care.'

**Dr Derrick Heng and Dr Kelvin Bryan Tan,
Ministry of Health Singapore**

Health workforce migration: The case of UK and New Zealand

Robin Gauld and Simon Horsburgh

Universal health care is perhaps one of the most important goals for policy-makers in Commonwealth member countries. Evidence indicates that accessible health care, delivered at the right time in the right locality, can reduce overall health care costs (Nolte and Pitchforth, 2014; Starfield, Shi and Macinko, 2005). It can also contribute to improvements in the quality of care and to ensuring the health workforce is optimally deployed. Of course, this last point implies availability of a health workforce with the right mix of professionals, working with an appropriate scope of practice, and support staff. This is particularly important given the rise in chronic disease and corresponding demand for long-term condition management, driven in part by population ageing.

Most Commonwealth member countries face substantial challenges in building and sustaining their health workforce. The challenges come from capacity to train health professionals, and train enough of them, as well as workforce retention and distribution in a context of global health workforce migration. Many countries rely heavily on inward migration to provide for the health workforce needs of this demographic, while watching their own trainees go abroad in search of better opportunities. This article case studies the medical workforce in New Zealand, a high-income country whose health care system would not function without migrant professionals.

Presently, some 44 per cent of New Zealand's doctors and more than a quarter of nurses are migrants. New Zealand has also historically been among the highest exporters per capita of locally trained health professionals (Zurn and Dumont, 2008). New Zealand draws its international medical graduates (IMGs) from a range of countries, but the UK is the dominant source. This has been a source of concern in the UK, whose General Medical Council reported in 2014 that 51 per cent of 'certificates of good standing' were issued to postal addresses in Australia and New Zealand (GMD, 2014). One newspaper suggested that 'they cost £610,000 to train, but 3,000 a year are leaving us for a life in the sun' (Borland, 2014). Of these, around 500 per annum seek work in New Zealand (MCNZ, 2013). Their replacements in the UK are increasingly doctors from EU member countries.

Medical migration may be a concern for UK policy-makers, but these doctors are crucial to New Zealand, which, with IMGs composing 43.6 per cent of the medical workforce in 2014, has the highest proportion of any OECD (Organisation for Economic Co-operation and Development) member country. Furthermore, this proportion has been growing over time. Half of New Zealand's present 3,500 IMGs hail from the UK and go into a health system not dissimilar to the NHS (See Box: 'New Zealand's health system'; HWNZ, 2014). Yet, these doctors do not provide for workforce sustainability. A year after registration, only 53 per cent of UK doctors remain in New Zealand, dropping to 30 per cent after two

years and 20 per cent after eight. By contrast, 70 per cent of New Zealand-trained doctors are still there after eight years, suggesting that a locally grown workforce is more likely to contribute to sustainability (MCNZ, 2013; HWNZ, 2014). The costs of medical migration for New Zealand, and countries facing similar challenges, are huge. These include recruitment and associated costs, such as relocation, locum coverage for vacant posts and supervision for new recruits seeking medical registration.

What motivates UK-trained doctors to migrate abroad? What are their experiences in a country such as New Zealand? And if they like a 'life in the sun', why do they only go down under for a short time? To address these questions, we present findings from research conducted in 2014 into motivations and experiences of UK doctors practicing in New Zealand. A high proportion are attracted to New Zealand by its more relaxed lifestyle, better working conditions and postgraduate training opportunities. But many indicate they fled the UK's NHS because of frustration with clinical practice and NHS reforms, and workplace stress.

What we found

The survey¹ included a series of fixed-response Likert-scale questions on motivations for the move to New Zealand. 'Quality of life (or that of my family)' was indicated as 'important' or 'highly important' by 96 per cent of respondents; 87 per cent indicated more attractive working conditions; and 72 per cent said it was availability of career opportunities. Notably, 65 per cent indicated a 'desire to leave the UK NHS', with a third of all respondents indicating that this was 'highly important'. Only 38 per cent agreed that 'more attractive salary and incentives' motivated their move, with less than ten per cent saying this was highly important.

Proportional odds regression analyses highlighted that older respondents (those 41 years of age and above) were less inclined to agree than 20–30-year-olds (the reference group) that quality of life was an important motivator (all regression findings henceforth discussed are statistically significant at $p < 0.05$). Registrars were also less likely than hospital specialists or general practitioners (GPs) to be seeking a better quality of life, but more than twice as likely as GPs to be motivated by 'training and development goals'. When it came to the desire to leave the NHS, we found that younger doctors (20–30 years of age) were around four times as likely as older doctors (aged 51 and over) to agree that this was a motivating factor.

We asked survey respondents a series of questions about their work and living environment in New Zealand, factors deemed important to workforce sustainability. Overall, they were a relatively happy group with more than 90 per cent satisfied with their workload, work colleagues and community life, and with the New

Zealand health system being 'easy to work in'. Eighty per cent agreed that 'the New Zealand health system is better to work in compared to the UK system', with more than 40 per cent strongly agreeing with this statement. Regression results showed males and older respondents (41 years and over) were less likely to agree, while hospital specialists and registrars were considerably more likely to agree than GPs.

Asked about motivations to leave the NHS, GP respondents, in particular, cited a stressful working environment with a high volume of patients and very limited time to see each one. One respondent, a GP who had arrived in the country in 2012, said of general practice in New Zealand: 'Few home visits [due to dedicated afterhours centre staffed by rostered GPs], longer GP consult times, less squeeze on appointments, more opportunity to perform practical procedures and work patients up before referring to secondary care.' Hospital specialists also emphasised a desire to leave behind stress and frustration:

'... We were being expected to do more and more with less ... it felt like it was assembly line medicine. [The work pressure] was just extremely intense and [combined with a long commute] I felt like it was going to be quite deleterious for my psychological health and family life.'

– Specialist, arrived 2014

Given its high IMG attrition rate, we asked survey respondents whether they were considering a move away from New Zealand – 29 per cent indicated they were. We asked this subset (n=181) to rate their level of agreement or disagreement with a series of considerations. At 76 per cent, the highest scoring factor was 'desire to return to a country (e.g. UK) where I had previously lived/worked'. Next in order of importance, at 55 per cent agreement, was availability of career opportunities elsewhere. Some 24 per cent were motivated by 'more attractive salary and incentives elsewhere', and 20 per cent by a 'better lifestyle elsewhere'; only 15 per cent cited a 'poor working environment' in New Zealand as being a consideration.

We asked interviewees what would motivate them to want to leave New Zealand. Many suggested home and family:

'Home is home, and there is a lot more of the world we want to live in too. But we hope to return to NZ for another year sometime.'

– GP, arrived 2011

Finally, we asked 16 interviewees to compare and contrast the NHS and New Zealand health systems, including which they found preferable to work in. There was a mix of views:

'I think work conditions [in NZ] are vastly superior to the UK – at the moment. I enjoy working here and I suspect I would be quite burnt out if I had remained in the UK.'

– GP, arrived 2012

'Although overall it is a better place to work than the UK, the NZ health system is not a bed of roses: Pharmac [New Zealand's drug-buying agency] is more restrictive on drug availability than NHS, social support in the community is poorer, there are more co-payments that act as a disincentive for poorer people to seek health care.'

– GP, arrived 2008

This last point poses particular challenges for achieving universal health care in New Zealand – one that policy-makers have yet to tackle.

Will the 'life in the sun' last?

The UK has a long tradition of supplying doctors to New Zealand dating back to early colonial settlement and, in 1875, the founding of its first medical school (Page, 2008). In this context, the UK doctor going Down Under for a spell is nothing new, but there has been increasing recognition that New Zealand's reliance on IMGs is not ideal (Zurn and Dumont, 2008; NZ MoH, 2006). The public hospital doctors' union has campaigned vigorously for growing the local workforce (ASMS, 2013; 2014); the government, also, has acknowledged the need for investment (HWNZ, 2014). Since 2007, medical training places in the two New Zealand medical schools have almost doubled. However, they continue to produce fewer medical graduates than the OECD average. Its doctor-to-population ratio of 2.6:1,000 people is also below the OECD 3.2:1,000 average (MTRP, 2014).

As New Zealand works to grow its medical workforce to keep pace with health care demands it is likely, in the short term, to continue relying heavily on IMGs, especially in areas with crucial shortages, such as rural general practice and psychiatry (HWNZ, 2014). But the situation could change quickly for two reasons. First, the market in Australia, a traditional 'life in the sun' for New Zealand doctors, is tightening up as it graduates doctors from ten new medical schools established since 2000 (MTRP, 2014). Second, new schemes to keep New Zealand doctors at home after graduation are starting to have an impact, along with the increased medical school output (HWNZ, 2014). In the meantime, if the UK and other countries are concerned about outward migration of doctors and workforce sustainability

New Zealand's health system

New Zealand's 1938 Social Security Act was the world's first attempt to create a 'national health service'. Medical resistance meant the intent was never realised. Public hospitals salary all staff and are free of patient charges, however, GPs are largely in private practice and act as gatekeepers (see page 225 for more details). They receive considerable government subsidies but charge most patients a fee per consultation, creating an access barrier (Jatrana and Crampton, 2009). The government contributes 83 per cent of total health expenditure, as in the UK. Around 40 per cent of public hospital specialists have a separate private practice. This means patients of better means are able to circumvent public hospital waiting times or access treatments considered to be of lower priority in the constrained public sector (Gauld, 2013).

As such, New Zealand has a two-tiered health system, despite considerable government investment and commitment to public services. Long waiting times are common for non-urgent hospital services and those who can pay routinely seek treatment in the private sector, where professionals generate much higher incomes than in the public sector. Health professional shortages contribute to this situation. The challenges New Zealand faces are magnified in many less developed countries.

they could consider strategies aimed at retaining younger doctors, those concerned about quality of life and training opportunities, and, perhaps very importantly, pay attention to workforce stress.

Acknowledgements

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Endnotes

- 1 In 2014 we invited all UK-trained doctors registered with the Medical Council of New Zealand, who had arrived within the previous ten years, currently practicing and with an active email address, to complete an online survey (n=1354). Forty-seven per cent (n=632) responded; 97 per cent of these completed the survey in full. Respondent characteristics were similar to those of non-respondents. We also interviewed 16 doctors – GPs and public hospital specialists from different locations – selected from around 200 survey respondents who offered to participate in this way. Interviews were recorded, transcribed and analysed for key themes (Rice and Ezy, 1999).

The NZ-UK Link lectures 2015: Professor Michael Baker

NZ-UK Link's 2015 lectures will be given by Michael Baker on the following topics:

1. **The 1918 influenza pandemic: lessons for controlling emerging diseases in the modern era.** The 1918 influenza pandemic remains the single most lethal natural disaster in recorded human history, with mortality exceeding 50 million people worldwide. In New Zealand (NZ) this pandemic killed more than 8,000 people in two months, which was almost one per cent of the population. This presentation will draw heavily on original research our group has carried out to understand factors that affected influenza mortality in the NZ armed forces. The lecture will also look at the experience of Pacific countries with both successful maritime quarantine (American Samoa) and unsuccessful exclusion (Western Samoa, where more than 20 per cent of the population died during the pandemic). Not surprisingly, these events have left lasting societal memories that are still evident today
2. **Why are infectious diseases linked to poverty: Implications for controlling pandemics.** Infectious diseases cause a far higher disease burden for those living in relative poverty, and for indigenous peoples and ethnic minorities. These disease gradients apply to both endemic disease and to pandemics. NZ has probably described these gradients better than any country, and begun to investigate the causes and implications for prevention and control of severe infectious diseases. The findings from this work have wide-ranging implications for managing emerging infectious diseases, particularly in a world where more people are living in crowded urban settings than ever before.
3. **Stopping pandemic diseases at the border: can it be done?** New Zealand's pandemic plan includes an emphasis on preventing importation of emerging infectious diseases. Professor Baker has led a research programme funded by the US Centers for Disease Control and Prevention (CDC) to investigate the potential for identifying influenza in arriving airline passengers. He was also very actively involved in efforts to improve control measures at the borders in NZ

during the 2009 influenza pandemic. This work has given NZ some of the best evidence available internationally about what works and what doesn't in this setting. New Zealand's focus on border control of infectious diseases is unusual, so this work is likely to be of interest to those involved in international infectious disease control.

4. **Early detection of emerging diseases: Surveillance for severe respiratory infections in NZ.** Experience and logic suggest that new pandemics will almost certainly be caused by respiratory pathogens (with influenza and SARS being the best examples). Professor Baker developed New Zealand's infectious disease surveillance systems in his previous work at ESR and is working on implementation of the International Health Regulations (IHR) for the World Health Organization. More recently he has been co-leading a large US CDC-funded programme, the Southern Hemisphere Influenza Vaccine Effectiveness Research and Surveillance (SHIVERS) project, which has established the first site in the Southern Hemisphere to monitor severe acute respiratory infections (SARI). A major reason for such surveillance is to support early detection of emerging pandemics. This lecture would draw on this research to describe the potential for early rapid detection of emerging infectious diseases and the dissemination of these findings.

For more information on the NZ-UK Link Foundation, visit www.nzuklinkfoundation.org

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Solidarity, equity and rights-based approaches to health provision

Su-ming Khoo

The goal of universal health coverage (UHC) has risen to prominence in global debates, comprising the core of the World Health Organization's (WHO) key proposals for a post-Millennium Development Goals agenda (WHO, 2012). There are two main elements to UHC: the provision of necessary health services and expansion of insurance coverage. UHC proposals are gaining traction as countries at varying levels of economic development, including Rwanda, Thailand, China and the USA, have undertaken significant coverage reforms.

While there is currently significant consensus and momentum pushing UHC to the forefront of global health policy, its meanings and implications have not always been clear. UHC may be taken to mean that all medical services should be available at no cost or low cost; it may refer to comprehensive, unified health services, such as the UK's National Health Service, or it may simply mean that every individual should have health insurance (IOM, 2004), without specifying particular principles or entitlements. How the term 'UHC' is used is highly dependent on the specific policy context surrounding the policies being advanced under its banner.

On her appointment to a second term as Director-General of the WHO in 2012, Margaret Chan declared UHC to be 'the most powerful concept that public health has to offer' due to its ability to function as an 'inclusive umbrella' for different programmatic interests in global health reform. According to the WHO (2014), UHC reforms entail four priorities:

1. The development of strong, efficient and well-run health systems able to meet priority health needs and practising people-centred, integrated care, including health promotion, prevention, early detection, and capacity to treat and rehabilitate. Non-health sectors, such as transport, education and urban planning, also make important contributions to this goal
2. The development of financing systems that help people avoid financial hardship if they incur health costs
3. Access to essential medicines and technologies to treat and diagnose conditions
4. A sufficient capacity of well-trained and motivated health workers to provide the needed services

Reichlin (2011) sets out three relevant bioethical principles of equity, rights and solidarity. This article asks if these fundamental ethical principles are in place, and revisits the UHC concept in light of them.

This discussion will focus particularly on dimensions of solidarity in health and human rights, arguing that health solidarities need to be better understood in both global health reform and human rights advocacy. Solidarity takes us beyond narrow concepts of financial sustainability to reconnect the current goals of human

health and well-being to those of future generations. Solidarity is thus an important consideration underpinning the centrality of health in the pursuit of the 'triple bottom line' of social, ecological and financial sustainability.

A transformative agenda for global health equity

In 2005 the World Health Assembly (WHA) resolved to develop health financing systems enabling UHC. The 2010 World Health Report subsequently highlighted health-systems financing as 'the path to Universal Coverage'. In 2011 the WHA called upon Margaret Chan to bring the UHC issue to the UN General Assembly, which she duly did on her appointment to a second term as WHO Director-General in 2012. However, it must not be forgotten that Chan had championed primary health care (PHC) as the global health priority several years earlier (WHO, 2008).

The 2008 World Health Report represented an important moment, returning the focus of global health governance to the transformative agenda for health equity advanced three decades earlier at the International Conference on Primary Health Care, Alma-Ata, with the popular slogan: 'Health for All' (International Conference and WHO, 1978). The language of rights and equity connected the WHO leadership to a broad social movement of professionals, researchers, institutional and government reformers, progressive civil society and grass-roots organisations collectively aiming to tackle the 'politically, socially and economically unacceptable' health inequalities in all countries, and to effect a value change towards people-centred health care based on 'social justice and the right to better health for all, participation and solidarity' (WHO, 2008: p. 1).

Surveying the challenges for global health three decades later, the 2008 World Health Report revived the PHC agenda to address the major deleterious global trends of growing inequalities; 'inverse care' (disproportionately focused on high-cost, specialist, tertiary interventions); fragmented care (due to the multiplication of vertical health programmes and projects); and the problems posed by the commercialisation of health care. It noted the trends of urbanisation and ageing, and the policy realities of globalisation, cost-containment and deregulation (WHO, 2008: p. 11). Four main types of reforms were proposed:

- UHC to improve health equity
- Service delivery reforms to make health services more people-centred
- Public policy reforms to prioritise community-based health protection and promotion
- Leadership reforms to make health authorities more answerable and reliable

The fundamental rationale for reviving PHC was a democratic one – that '[p]eople expect their health systems to be equitable', obliging governments to reform systems to achieve 'universal access to health services with social health protection' (WHO, 2008: p. 23).

Inequality, policy drift and the fate of health solidarity

Amid growing acknowledgement of the economic and human costs of inequality, Göran Therborn (2013) powerfully argues that inequality is a 'killing field', reproducing vital inequalities of life and health via mechanisms of 'distanciation' that polarise 'winners' and 'losers' in the social system. Whitehead and Popay (2010) suggest that efforts to address inequalities are 'swimming upstream' against powerful countervailing currents of power and vested interest. In comparison to the earlier proposals for transformative PHC, the current 'umbrella' concept of UHC may be obscuring a significant drift in arguments and rationales. There is tension between the original PHC aim of universally accessible, people-centred health services and the newer aim of financial risk protection that is contingent on socialised forms of risk-sharing. Questions about the social nature of health risk protection have become more complex, couched within increasingly individualised, financialised and globalised insurance mechanisms. The answers may complicate and confound the requirements of public health, leading to the persistent under-provision of public health goods as the very understanding of collective health becomes more commodified and conflicted.

Houtepen and ter Meulen (2000) analyse the challenges of health solidarities, writing from the perspective of a relatively strong, equitable and efficient health system with UHC: the Netherlands. Defining solidarity as a mixture of social justice and a set of cultural values and ascriptions, they show how health solidarities evolved from limited forms of mutual aid towards a comprehensive welfare state offering collectively financed universal health services. Mutual solidarities gradually transformed into national citizenship rights, with the government co-ordinating the collective responsibility for health, and guaranteeing universal coverage and accessibility.

However, since the 1990s, financial pressure has led to changing conceptions of justice and more restricted notions of solidarity within the welfare state. Individual responsibility for health is more emphasised, focusing on healthy behaviours and lifestyles. As health insurance was privatised, solidarity declined. Given the health care gap caused by rising service demands and strict cost controls, longer waiting lists and waiting times have resulted. As government and citizens have turned to private solutions, public attitudes towards solidarity have changed. Lower solidarity is correlated with lower public trust in the health care system as a whole, and there are worries that the effectiveness and quality of the overall health system may be affected.

In European social democracies like the Netherlands, market-based health reforms have been limited, while social solidarity has been quite strictly reinforced by the government (for example, by compelling universal social insurance, prohibiting risk selection and strictly controlling the quality of services). There is a strong awareness that public measures must maintain solidarity in order to ensure that higher income groups contribute to health care services

for lower income groups. Potentially more important than income solidarity, however, is risk solidarity as the 'inverse care' trend means that the most expensive ten per cent of patients in the curatively concentrated health system consumed some 70 per cent of the total health costs in 2001 (ter Meulen and Maarse, 2008: p. 271).

Ageing societies mean that inter-generational solidarity must necessarily increase, as more costs attach to curing and caring for the diseases of ageing. While the right to health highlights what people are entitled to and explains what dutybearers must respect, protect and fulfil, public health perspectives point to important examples of collective goods requiring protection. The public health ethos itself requires forms of solidarity that cannot be secured by individual responsibility, while necessary levels of trust and quality depend on collective attributes of the health system and its staff. Blood and organ donation and herd immunity arising from mass vaccination are examples of health solidarities where the larger population takes responsibility for an overall, systemic outcome that cannot be reduced to individual responsibility.

The right to health

The right to health appears indirectly as a 'development' issue within Article 25 of the Universal Declaration of Human Rights (UDHR), while the 'social determinants' of health are broadly captured in the phrase 'adequate standard of living'. This leads on to Article 11 of the International Covenant on Economic, Social and Cultural Rights (ICESCR), defining the Right to an Adequate Standard of Living as 'adequate food, clothing and housing, and to the continuous improvement of living conditions'. As Craven notes, the right to an adequate standard of living is wide-ranging and general, but it is paramount, 'not least because at minimum levels it presents a question of survival', even if 'it is also true to say that the right to an adequate standard of living has been violated more comprehensively and systematically than probably any other right' (1995: pp. 287–288).

The 1946 WHO Constitution, which pre-dated the UDHR (1948) and ICESCR (1966, Article 12) address the right to health specifically, yet expansively, as the right to 'the highest attainable standard of health as a fundamental right of every human being'. The right to health is included in a number of regional rights conventions, including the American Declaration of the Rights and Duties of Man (Article 11), the 1981 African Charter on Human and Peoples' Rights (Article 16), and the 2000 European Union Charter of Fundamental Rights (Article 35).

The basic feature of a rights-based approach is that it defines duties, criteria and standards that states and non-state actors have duties to respect, protect and fulfil as a matter of international laws and norms. While it does not mean that everyone automatically has the right to be healthy, the right to health obliges governments to ensure that timely, acceptable and affordable health care is available to all, without discrimination, that care is aligned with medical ethics, is culturally appropriate and is of appropriate quality (i.e. safe and medically appropriate). The non-discrimination aspect is active and positive in the sense that special provisions exist to ensure that the vulnerable, needy and disadvantaged are accorded priority. Pregnant women and children are afforded special protection, while occupational health and disease control are also prioritised (UN Economic and Social Council, 2000).

The right to health specifies criteria of 'availability, accessibility, acceptability and quality', and these are reflected in the articulation of the first UHC goal regarding the provision of health care services. However, the approach taken to affordability as risk protection in the second goal tends to individualise costs, neglecting the key issue of how risk is socialised, as well as the concerns surrounding commercialisation, cost-containment, prioritisation and the public health dimension. The balance of costs and risks impact on the other stated UHC priorities regarding access to essential medicines and treatment, and also affect the issue of health worker capacity.

Conclusion

The current push for UHC as a global goal represents a partial return to an earlier transformative agenda for health equity and social justice under the banner of PHC. However, European countries that achieved equitable, rights-based UHC in earlier decades have experienced more than two decades of reforms in the opposite direction, changing the distribution of responsibility between the welfare state and the individual citizen. Ter Meulen and Maarse's analysis (2008: p. 262) suggests that this redistribution points to 'distanctiation' as one-tier universal systems have given way to two-tier systems, with increasing public ambivalence towards the principles of universality and solidarity in health care.

The increasing currency of the human right to health appears to guarantee available, accessible, acceptable quality health care services to all, equitably, without discrimination and with special care towards the most vulnerable and disadvantaged. Nevertheless, several aspects of health solidarity come to light as important concerns. The health care gap, driven by increasing needs and a retreating welfare state, has translated into widening gaps between the well-off who can afford private insurance and care solutions, and lower-income groups who require income and risk solidarity in order to access care on an equitable basis. The global trend towards ageing societies makes strong demands on intergenerational solidarity, which cannot be taken as a given. Financial sustainability is impossible without social solidarity, but even these two together will not suffice.

Health system reforms must look to environmental and ecological health and a genuinely multi-sectoral global agenda in order to sustain improvements in well-being. Individual responsibility must complement government action to preserve solidarity, in order for health rights to be equitably vindicated.

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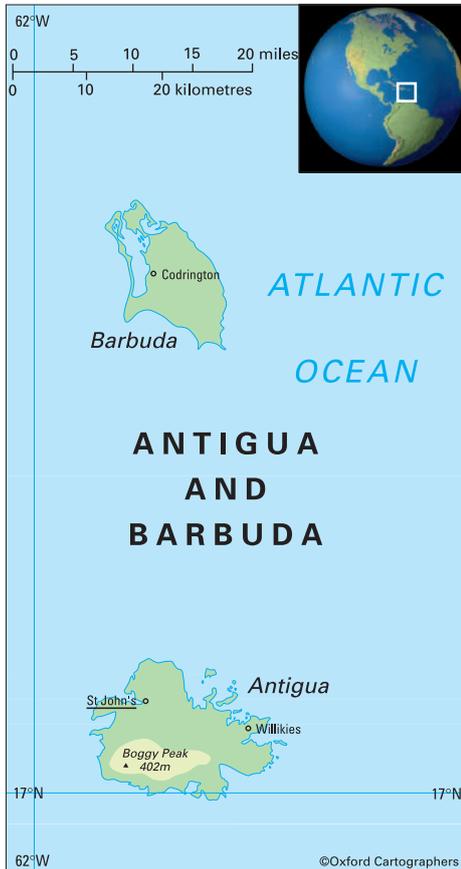
Commonwealth member countries



The Commonwealth



Antigua and Barbuda



KEY FACTS

Joined Commonwealth:	1981
Population:	90,000 (2013)
GDP p.c. growth:	0.7% p.a. 1990–2013
GNI p.c.:	US\$12,910 (2013)
UN HDI 2014:	World ranking 61
Life expectancy:	76 years (2013)
Under-five mortality rate (per 1,000 live births):	9 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	3.9% of GDP (2012)

General information

Antigua and Barbuda, at the north of the Leeward Islands in the Eastern Caribbean, is composed of three islands: Antigua, Barbuda (40 km north of Antigua) and Redonda (40 km south-west of Antigua). Antigua comprises six parishes: St George, St John, St Mary, St Paul, St Peter and St Philip.

Climate: Tropical and drier than most of the West Indies. The hot season, when most rain falls, is May–November. Hurricane Luis, the first hurricane in many decades, struck in mid-1995, causing particular damage to Barbuda, where it flooded 75 per cent of the island, including the main town of Codrington.

Environment: The most significant environmental issue is limited natural freshwater resources, which is aggravated by the clearing of trees to increase crop production, causing rainfall to run off quickly.

Population: 90,000 (2013); some 2,000 of whom reside on Barbuda; 35 per cent of people live in urban areas. The population growth rate stood at 1.6 per cent p.a. between the years of 1990 and 2012. In 2012 the birth rate was 16 per 1,000 people (est 26 in 1970) and life expectancy was 76 years (est 67 in 1970). The population is mainly (91 per cent) of African descent (2001 census).

Economy: Antigua and Barbuda is classified as a high-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality was eight deaths per 1,000 live births in 2013, with an under-five mortality rate of nine deaths per 1,000 live births in 2012. The under-five mortality rate in Antigua and Barbuda has been declining steadily since 1990. The country has now met its target of nine deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent known causes of death for children below the age of five years were birth asphyxia (32 per cent), prematurity (16 per cent) and injuries (12 per cent). Other contributory causes were congenital anomalies (nine per cent) and other diseases (31 per cent). In the period 2007–12 Antigua and Barbuda had universal maternal health care.

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 80 per cent of all mortality in Antigua and Barbuda in 2008. The most prevalent NCDs in Antigua and Barbuda are cardiovascular diseases, which accounted for 36 per cent of total deaths across all age groups in 2008. Other NCDs with a considerable prevalence among the country's population are cancer, diabetes and respiratory diseases, which contributed 19 per cent, ten per cent and two per cent to total mortality, respectively (2008).

Together with maternal, perinatal and nutritional conditions, communicable diseases accounted for 13 per cent of total deaths in Antigua and Barbuda across all age groups in 2008. A government paper on HIV/AIDS reported that there were 755 people living with HIV in the country in 2013. Antigua and Barbuda is a non-endemic country for malaria. Estimated incidences of tuberculosis (TB) increased dramatically in the period 1990–2013. Estimated mortality (when mortality data excludes cases comorbid with HIV) from TB fluctuated slightly in the period 1998–2013.

The most commonly diagnosed mental illness in Antigua and Barbuda is schizophrenia.

Health systems: In 2012 government expenditure on health was 3.9 per cent of GDP, equivalent to US\$514 per capita. In the most recent survey conducted, between 1997 and 2009, there were 17 doctors, and 328 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 99 per cent of births were attended by qualified health staff and in 2013, 98 per cent of one-year-olds were immunised with one dose of measles.

The country is divided into six medical districts and a district medical officer is appointed to provide medical services in each district. The provision of primary health care is delivered through health centres that are located within a 3-km radius of every major settlement.

The country's public health system has a National Drug Formulary that provides a total of 360 different drugs, guaranteeing availability of medication to all people suffering from chronic conditions. The Ministry of Health is responsible for the health of

the nation and is financed mainly through allocations from the Ministry of Finance.

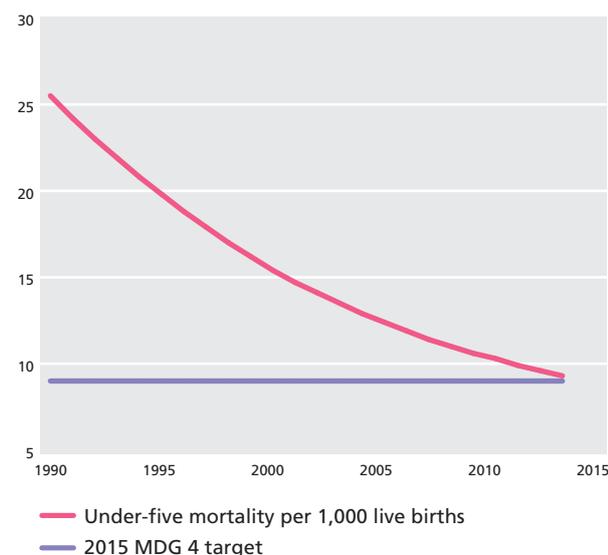
The current mental health laws under the Mental Treatment Ordinance have been in place since 1957.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

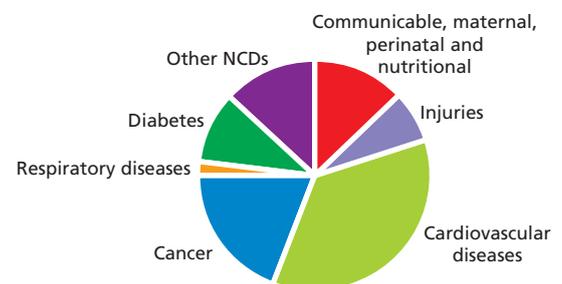
For Antigua and Barbuda to achieve its target for the reduction of child mortality, which forms MDG 4, the country should have reduced under-five deaths per 1,000 live births to nine and increased measles immunisation to 100 per cent when the 2015 data is analysed. Using the most recent data (2013), under-five mortality is approximately nine deaths per 1,000 live births and measles immunisation is at 98 per cent. While this data indicates that Antigua and Barbuda is not far from achieving MDG 4, the figures were closer to meeting their targets in 2011.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. Part of the goal stipulates that 100 per cent of births must be attended by a skilled health professional. In the period 2006–10 this figure stood at 99 per cent and so was very close to being achieved.

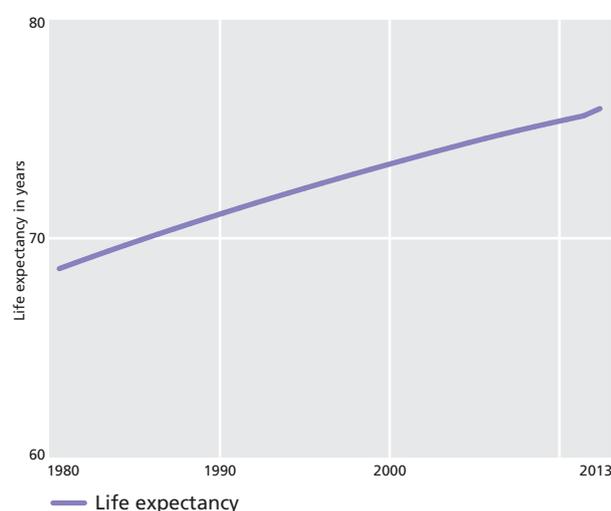
Under-five mortality



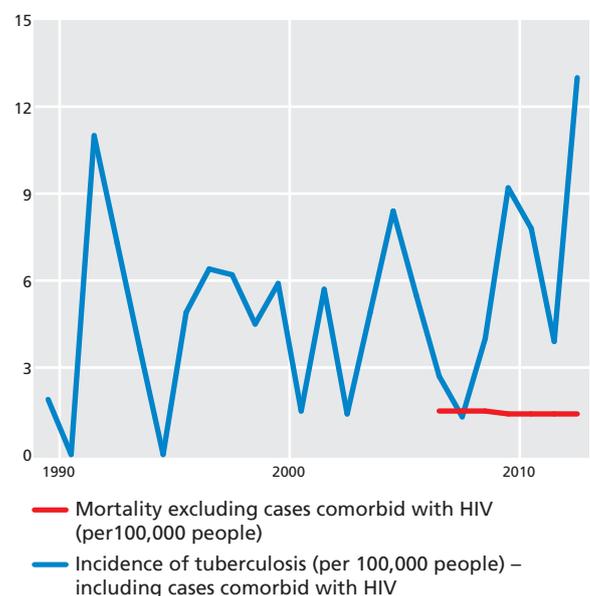
Mortality by cause of death (% of all deaths), 2008



Life expectancy



Tuberculosis: Incidence and mortality



MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Estimated mortality (when mortality data excludes cases comorbid with HIV) from TB has decreased slightly in the period 1998–2012. Estimated incidences of TB have more than doubled since 1990.

Antigua and Barbuda is non-endemic for malaria. There is not enough information from international agencies to confirm the country's progress on this goal with regard to HIV/AIDS.

For definitions, sources and explanations on the MDGs see page 314.

Universal health coverage

Only a quarter of health care in Antigua and Barbuda (25 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 5.2 per cent of GDP in 2012 and of this 75 per cent was covered by the government. This expenditure by government amounts to US\$514 per capita.

Public health care is financed mainly through allocations from the Ministry of Finance. The country's public health system has a National Drug Formulary that provides a total of 360 different drugs, guaranteeing availability of medication to all people suffering from chronic conditions.

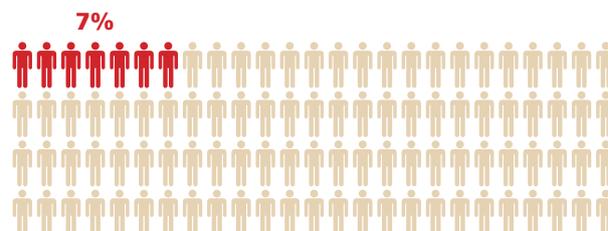
In June 2014 the government released the Report on the Draft Strategy for Universal Health Coverage. The report identified four strategic lines for guiding the transformation of health systems on the islands, namely: expanding equitable access to comprehensive, quality and people-and-community-centred health services; strengthening stewardship and governance; increasing and improving financing, without out-of-pocket expenditures, with equity and efficiency; and taking inter-sectoral action on the social determinants of health.

Antigua and Barbuda is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Approximately 6,000 people in Antigua and Barbuda are over the age of 65 – seven per cent of the total population (2013). At the age of 60, a person living in Antigua and Barbuda can be expected to live for an additional 21 years, on average (2013). Pensions were first introduced in Antigua and Barbuda in 1993. Today, the monthly Old Age Assistance Programme is paid by the state at a rate of US\$94 per person (2007–12) on a means-tested basis. Overall, public pension spending is equivalent to 2.5 per cent of the country's total economic output (2006).

The Ministry of Health, Social Transformation and Consumer Affairs is the government agency responsible for the care and social protection of the elderly in Antigua and Barbuda. The Ministry of Health established the Fiennes Institute, which provides holistic, free long-stay residential care services for impoverished elderly persons and those elderly people whose family cannot provide for them. A programme, Government Residential Assistance Care for

Population over 65



the Elderly and Eligible, is also in place to provide home care services and recreational activities to elderly people. The programme is managed by the Citizens Welfare Division of the Ministry of Social Transformation.

In 2011 Antigua and Barbuda received support from the Pan American Health Organization (PAHO) to develop a National Policy on Ageing, which was finalised in 2013. The policy addresses issues relating to the care of the elderly in Antigua and Barbuda.

Further information

Ministry of Health, Social Transformation and Consumer Affairs: www.ab.gov.ag

Commonwealth Health Online:
www.commonwealthhealth.org/health/americas/antigua_and_barbuda



Australia



KEY FACTS

Joined Commonwealth:	1931 (Statute of Westminster)
Population:	23,343,000 (2013)
GDP p.c. growth:	1.8% p.a. 1990–2013
GNI p.c.:	US\$65,520 (2013)
UN HDI 2014:	World ranking 2
Life expectancy:	82 years (2013)
Under-five mortality rate (per 1,000 live births):	4 (2012)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	6.1% of GDP (2012)

General information

The Commonwealth of Australia is a Federation with six states – New South Wales (state capital Sydney), Victoria (Melbourne), Queensland (Brisbane), South Australia (Adelaide), Western Australia (Perth) and Tasmania (Hobart) – and two territories, Northern Territory (capital Darwin) and the Australian Capital Territory, where the federal capital, Canberra, is situated.

The term 'Australia' is derived from *Terra Australis*, the name given to a southern landmass whose existence geographers deduced before it was discovered. Papua New Guinea (to the north) and New Zealand (to the east) are Australia's closest neighbours. To the south lie the Southern Ocean and Antarctica.

Climate: The Tropic of Capricorn almost bisects the continent, running just north of Alice Springs, Australia's central settlement.

The subtropical areas north of this line have summer rainfall and dry winters. South of the Tropic, the rest of the continent and Tasmania are temperate. Continental considerations affect this basic pattern, most coastal areas having some rainfall, whereas a large tract of central Australia has less than 300 mm of rainfall p.a. Droughts and consequent bushfires are a serious problem.

This pattern of rainfall will be dramatically affected by occasional La Niña events, which occur in the central and eastern Pacific Ocean, causing the sea to cool and increasing the probability that strong, cool onshore winds will bring heavy rains to the eastern regions of Australia, as occurred from November 2010, when there were devastating floods first in Queensland, then in Victoria.

Environment: The most significant environmental issues are soil erosion and desertification; loss of the natural habitat of many unique animal and plant species due to increases in agricultural and industrial production; and damage to the Great Barrier Reef, the largest coral reef in the world, due to increased shipping and tourism.

Population: 23,343,000 (2013); population density is one of the lowest in the world; 89 per cent of people live in urban areas and 59 per cent in urban agglomerations of more than a million people. The population growth rate stood at 1.4 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 13 per 1,000 people (20 in 1970) and life expectancy was 82 years (71 in 1970); life expectancy in the Aboriginal population was about 70 years.

People of Asian origin comprise 8.7 per cent of the population and Aboriginal or Torres Strait Island peoples 2.5 per cent. Seven people out of every ten of the population were born in Australia (2006 census).

Economy: Australia is classified as a high-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Australia was three deaths per 1,000 live births in 2013, with an under-five mortality rate of four deaths per 1,000 live births in 2012 – down from nine deaths in 1990. In 2010 the two most prominent known causes of death for children below the age of five years were congenital anomalies (28 per cent) and prematurity (21 per cent). Other contributory causes were intrapartum-related complications (11 per cent), injuries (seven per cent) and acute respiratory infections (three per cent). In 2013 Australia's adjusted maternal mortality ratio was six deaths per 100,000 live births (estimate by UN agencies/World Bank).

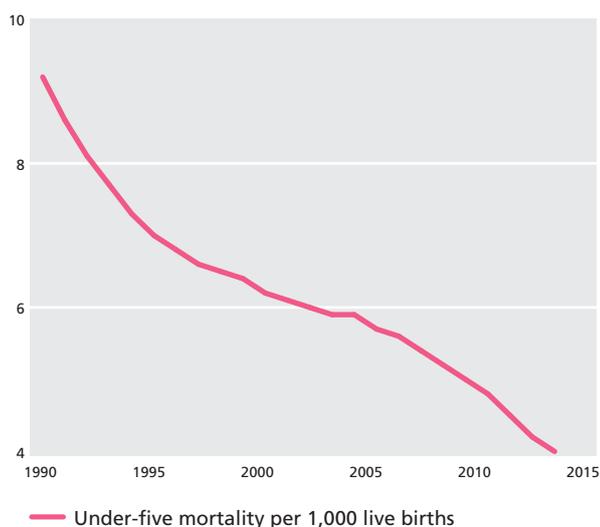
Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 91 per cent of all mortality in Australia in 2012. The most prevalent NCDs in Australia are cardiovascular

diseases, which accounted for 31 per cent of total deaths across all age groups in 2012, and cancer, accounting for 29 per cent of all deaths. Non-communicable variants of respiratory diseases and diabetes contributed seven per cent and three per cent to total mortality, respectively (2012). Communicable diseases, along with maternal, perinatal and nutritional conditions in Australia, accounted for an estimated three per cent of all mortality in 2012, and injuries for six per cent.

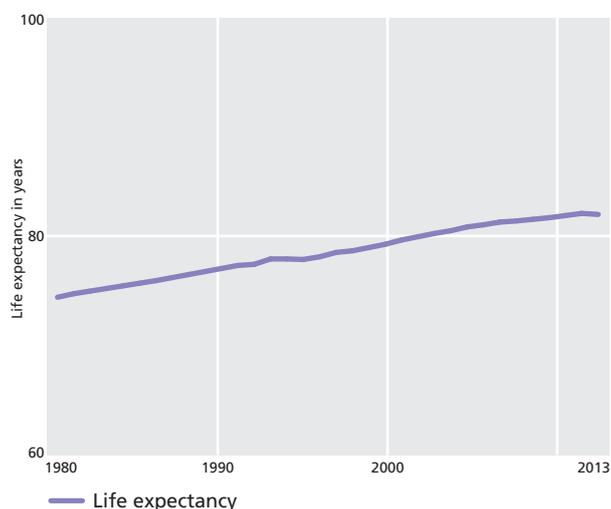
HIV prevalence in Australia, as a percentage of the population aged 15–49 years, is less than 0.2 per cent (2012). These levels have risen slightly since 1990. Australia is considered a non-endemic country for malaria by the World Health Organization (WHO), however, there were 3,355 reported cases of ‘traveller’s malaria’, infections acquired outside the country and brought into the national territory, in the period 2001–10. Estimated incidences of tuberculosis (TB) fell slightly in the period 1990–2013, while estimated mortality (when mortality data excludes cases comorbid with HIV) is low.

The most commonly diagnosed mental illnesses in Australia are anxiety disorders.

Under-five mortality



Life expectancy

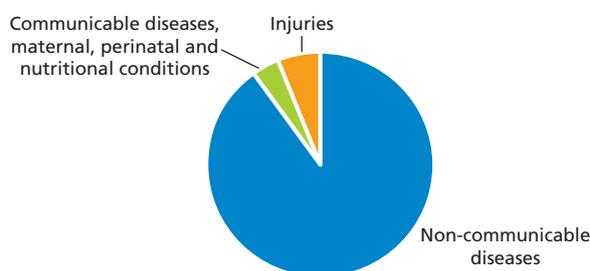


Health systems: In 2012 government expenditure on health was 6.1 per cent of GDP, equivalent to US\$4,108 per capita. In the most recent survey, conducted between 1997 and 2011, there were 327 doctors, and 1,065 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 99 per cent of births were attended by qualified health staff and in 2012, 94 per cent of one-year-olds were immunised with one dose of measles. In 2011, 100 per cent of Australia’s population had access to improved water sources and adequate sanitation facilities. In the most recent survey, conducted in 2011, there were 156 pharmaceutical personnel per 100,000 people.

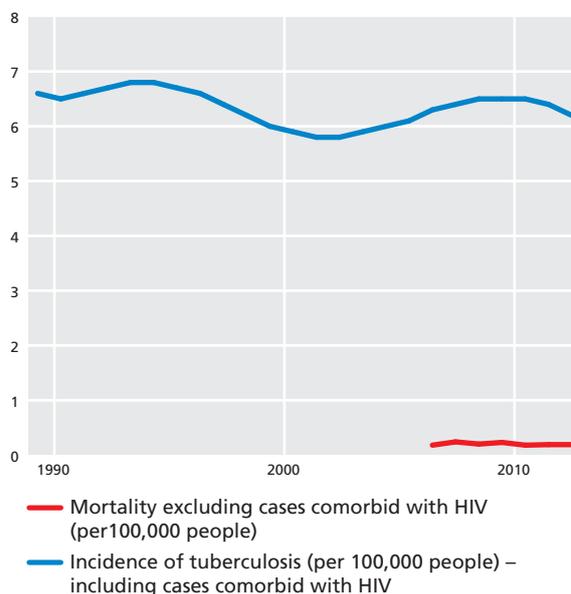
Health care in Australia is a combination of both private and government institutions. The Department of Health develops overall health policy, including that of the Medicare state-funded insurance scheme, which is delivered by the Department of Human Services. Medicare coexists with a private health system mainly funded by private health insurance. Health facilities, including hospitals, are the responsibility of Australia’s six individual states, although the federal government pays a large proportion of the cost of service in public hospitals. There are more than 1,300 hospitals located throughout the country (2012). The Department of Health also administers the Pharmaceutical Benefits Scheme, which provides heavily subsidised prescription medicine.

There is a large pharmaceutical industry in Australia, which contributes a significant proportion of total manufacturing exports.

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



Exports of A\$4.06 billion were generated in 2011–12, with around A\$1 billion spent on research and development (2010–11). More than 41,000 people in more than 300 companies engage in manufacturing, research and development, and wholesaling.

The most recent act relating to mental health in Australia is the Mental Health Act (1986) and mental health laws were last updated by the Mental Health Regulations of 2008.

Main health concerns and plans for remedial action: Australia has a life expectancy of 82 years – one of the highest in the world. Statistics show a sustained increase in life expectancy, up from 77 years in 1990 and 80 years in 2000. Gains have been primarily due to reduced child and maternal mortality, and improved longevity for other age groups, particularly for older people with chronic diseases.

The Australian Capital Territory had the highest life expectancy at birth, with 81.2 years for males and 85.1 years for females. The lowest life expectancy was in the Northern Territory: 74.7 years for males and 80.0 years for females.

Improving indigenous disparities in the distribution of health and its determinants is a priority of the Australian government. Over the period 2005–07, life expectancy for indigenous Australians was around 11.5 and 9.7 years lower than the Australian average for males and females, respectively. Mental health problems, cardiovascular disease and diabetes are some of the greatest contributors to this socio-economic gap in disease burden. The gap between the high rates of infant mortality among indigenous Australians compared with other infants, however, is narrowing. Between 2002 and 2012, the indigenous infant mortality rate halved, from 12.6 to 6.4 per cent. Notwithstanding this, the infant mortality rate for Aboriginal and Torres Strait Islanders is still around twice that for non-indigenous Australians (2012).

Government expenditure on indigenous health has risen since the launch of the National Partnership Agreement (NPA) on Closing the Gap in Indigenous Health Outcomes in 2009–10 and now represents about 5.1 per cent of total government expenditure on health. A report by the Menzies Centre for Health Policy at the University of Sydney in 2013 suggested that indigenous health programmes would need to be sustained for decades in order to have a significant impact on improving health outcomes.

Cancer is a significant cause of death in Australia, with seven of the 20 leading underlying causes of death attributable to some form of it. Given Australia's high UV radiation levels, frequency of fair-skinned populations and culture of outdoor activities, the country has the highest number of malignant melanomas, the major cause of death from skin cancer, with annual levels more than 20 times those in Europe for both women and men. In 2006 the Australian government established Cancer Australia, a government entity working to reduce the impact of cancer and improve the well-being of those diagnosed with it by ensuring that evidence informs cancer prevention, screening, diagnosis, treatment and supportive care.

Australia launched a major four-year national campaign in 2006 to raise awareness about skin cancer, including adopting the Global Solar UV Index, which indicates the potential for skin damage due to the UV radiation on any given day. Currently, two out of three Australians are diagnosed with skin cancer before the age of 70,

and between 95 and 99 per cent of skin cancer in Australia is caused by exposure to the sun. In 2010 there were 1,452 deaths from melanoma, with 445 deaths from non-melanoma skin cancer.

The median age at death for people who died of cancer, whose death was certified by a doctor, was 75.5 years in 2012.

For definitions and sources see page 314.

Universal health coverage

Roughly a third of health care in Australia (33 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 9.1 per cent of GDP in 2012, of which 67 per cent was covered by the government. This expenditure by government amounts to US\$4,108 per capita.

Australia has a state-funded insurance scheme, known as 'Medicare', which is delivered by the Department of Human Services, with the Department of Health responsible for developing Medicare policy. Medicare covers free or subsidised health treatment by doctors, health specialists, optometrists and, in specific circumstances, dentists and other allied health practitioners. Under Medicare, free treatment and accommodation is also available for public Medicare patients in public hospitals, with up to 75 per cent of the Medicare Schedule put towards services and procedures for private patients in public or private hospitals. Medicare also covers some health care services in other countries. The Pharmaceutical Benefits Scheme (PBS) and the PBS Safety Net were introduced as part of Medicare and reduce the cost of medicine.

It is generally recognised that the health status of Australia's Aboriginal and Torres Strait Islander population is inferior to that of the rest of the Australian population. This disparity is largely caused by a lack of access to health care, particularly for remote communities – Medicare services can be hundreds of miles from some Aboriginal settlements. Trachoma is one example of a disease no longer found in other developed countries that continues to blight the Aboriginal community. This bacterial infection of the eye can lead to blindness and is usually only found in developing countries, where it is linked to poor hygiene and poverty.

The Australian government has taken steps to try and bridge this gap, and there are special services under Medicare dedicated to improving access to health services for native people. In 2014–15 the government's Department of Health allocated more than A\$920 million in funding for the provision of health programmes specifically for Aboriginal and Torres Strait Islander people. Funding levels for indigenous health are expected to continue to grow until 2018, with the years 2017–18 seeing an investment of A\$3.1 billion.

In July 2014 the Australian government established the Indigenous Australians' Health Programme, which consolidated four existing indigenous health funding streams: primary health care base funding; child and maternal health activities; Stronger Futures in the Northern Territory (Health); and the Aboriginal and Torres Strait Islander Chronic Disease Fund.

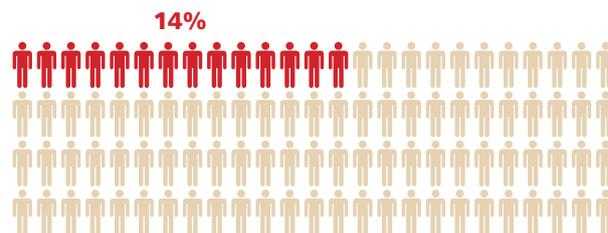
Australia has signed and ratified the International Covenant on Economic, Social and Cultural Rights, which includes 'the right of

everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care for the elderly: Around 3.3 million people in Australia are over the age of 65 – 14 per cent of the total population (2013). At the age of 60, a person in Australia can be expected to live for an additional 25 years, on average (2013). The Australian social security pension system dates back to 1900. Today, monthly pension credits are paid by the state at a rate of US\$1,427 per person on a means-tested basis (2007–12). Overall, public pension spending is equivalent to 3.5 per cent of the country's total economic output (2009).

The department of social services is responsible for administering care of the elderly in Australia. In 2015 more than one million people were in receipt of aged-care services from the Australian government, with more than half a million people receiving support at home. The system employs around 350,000 aged-care staff across approximately 2,100 aged-care providers. With Australia's rapidly ageing population, the government has announced plans to begin reforming the aged-care system in order to keep up with future demand.

Population over 65



The Australian government provides funding for the care of elderly patients suffering from Alzheimer's and dementia through national charity organisation Alzheimer's Australia. The organisation administers national dementia programmes and services as well as providing national policy and advocacy for Australians living with dementia and Alzheimer's. Programmes are funded by the Australian government and delivered by Alzheimer's Australia associations across individual states and territories.

Further information

Department of Health: www.health.gov.au

Department of Human Services: www.humanservices.gov.au

Commonwealth Health Online:
www.commonwealthhealth.org/health/pacific/australia



The Bahamas



KEY FACTS

Joined Commonwealth:	1973
Population:	377,000 (2013)
GDP p.c. growth:	-0.3% p.a. 1990–2013
GNI p.c.:	US\$22,312 (2013)
UN HDI 2014:	World ranking 51
Life expectancy:	75 years (2013)
Under-five mortality rate (per 1,000 live births):	13 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	3.5% of GDP (2012)

General information

The Commonwealth of The Bahamas is a coral archipelago of around 700 islands and more than 2,000 rocks and cays in the West Atlantic south-east of the coast of Florida, USA, and northeast of Cuba. It straddles the Tropic of Cancer and stretches 970 km.

Climate: The climate is cooler than other countries in the Caribbean region but still mild in winter. Winter temperatures average 21°C, summer temperatures 30°C. Most of the rain (averaging 1,100 mm p.a.) falls in May–June and September–October, and there are frequent thunderstorms in summer. The islands are subject to hurricanes from June–November.

Environment: The most significant environmental issues are coral reef decay and solid waste disposal.

Population: 377,000 (2013); 67 per cent of people live in New Providence, 83 per cent live in urban areas. The population growth rate stood at 1.7 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 15 per 1,000 people (31 in 1970) and life expectancy was 75 years (66 in 1970).

Bahamians are largely of African (85 per cent), Afro-European and European origin, as the indigenous Arawaks were wiped out.

Economy: The Bahamas is classified as a high-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in The Bahamas was ten deaths per 1,000 live births in 2013, with an under-five mortality rate of 13 deaths per 1,000 live births in 2012. While the under-five mortality figure has fallen since the early 1990s, it is not yet in line with the country's target of eight deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2012 the three most prominent known causes of death for children below the age of five years were acute respiratory infections (32 per cent), prematurity (13 per cent) and congenital anomalies (12 per cent). Other contributory causes were intrapartum-related complications (seven per cent), injuries (seven per cent) and neonatal sepsis (six per cent). In 2013 the adjusted maternal mortality stood at 37 deaths per 100,000 live births (estimate by UN agencies/World Bank).

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 72 per cent of all mortality in The Bahamas in 2012. The most prevalent NCDs are cardiovascular diseases, which accounted for 33 per cent of total deaths across all age groups in 2012. Cancer, diabetes and non-communicable variants of respiratory diseases contributed 17 per cent, seven per cent and one per cent towards total mortality, respectively (2012). Injuries accounted for eight per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions in The Bahamas accounted for an estimated 20 per cent of all mortality in 2012. The prevalence of HIV in The Bahamas, as a percentage of the population aged 15–49 years, was 3.2 per cent in 2012 and showed some reduction in the period 1990–2012. Malaria is usually not endemic to The Bahamas, though some cases were reported on the island of Great Exuma in the period 2006–08. Estimated incidences of tuberculosis (TB) fell by approximately a third in the period 1990–2013, while estimated mortality (when mortality data excludes cases comorbid with HIV) rose slightly overall in the same period.

The most commonly diagnosed mental illness in The Bahamas is schizophrenia, followed by mood disorders.

Health systems: In 2012 government expenditure on health was 3.5 per cent of GDP, equivalent to US\$759 per capita. In the most

recent survey, conducted between 1997 and 2009, there were 105 doctors, and 447 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 99 per cent of births were attended by qualified health staff and, in 2013, 92 per cent of one-year-olds were immunised with one dose of measles. In 2010, 100 per cent of the country's population had access to adequate sanitation facilities. In the most recent survey, conducted in 2008, there were 48 pharmaceutical personnel per 100,000 people.

There are numerous medical centres and health care facilities throughout The Bahamas, including a few public and private hospitals, a psychiatric hospital, a geriatric hospital and a private clinic that undertakes cosmetic surgery. The largest hospital, and the country's premier referral centre, is the Princess Margaret Hospital in Nassau.

Pharmaceuticals constitute a major export for The Bahamas. In addition to manufacturing firms, many leading international pharmaceutical companies have local representations in the

country. The Bahamas Pharmacy Council provides regulation and control of practice, registration and licensing within the industry. In 2012 the council resolved to eradicate illicit and illegal pharmacy practices.

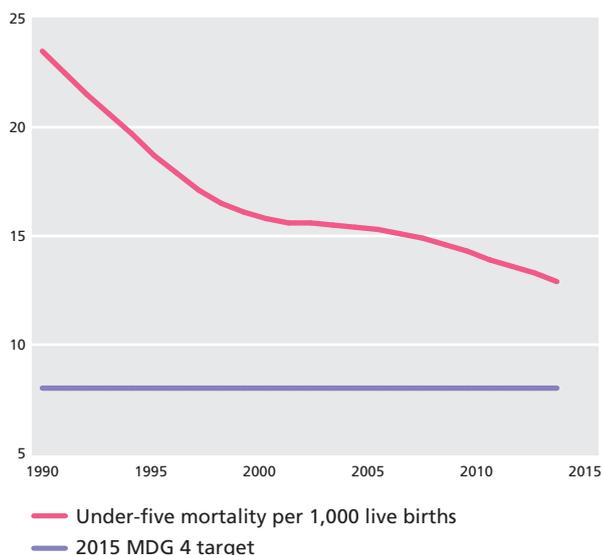
Current mental health legislation dates back to 1969, the year the Mental Health Act was promulgated, although there have been revisions in the 2000s in an effort to protect the well-being and rights of mental health patients.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

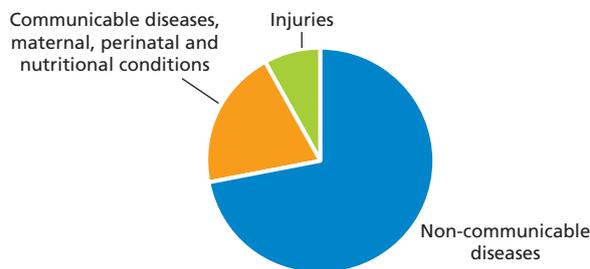
To achieve MDG 4, The Bahamas should have reduced under-five deaths per 1,000 live births to eight and increased measles immunisation to 100 per cent by 2015. In 2013 under-five mortality was approximately 13 deaths per 1,000 live births, showing a decrease from 17 in 2012. Measles immunisation was at 92 per cent in 2012, showing a slight improvement from 2011. These figures suggest that significant progress will need to be made in order to achieve MDG 4 when the 2015 data is analysed.

Improved maternal health is also a specific requirement of the MDGs. To this effect, MDG 5 requires the reduction of the number of maternal deaths by three-quarters in the period 1990–2015. When applying this target to The Bahamas, maternal mortality

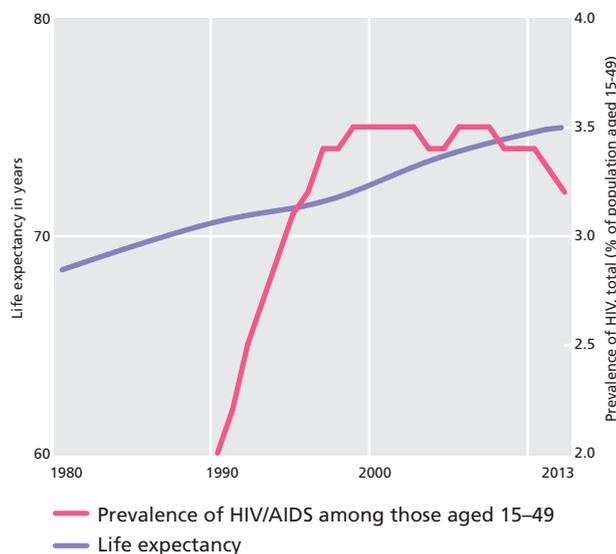
Under-five mortality



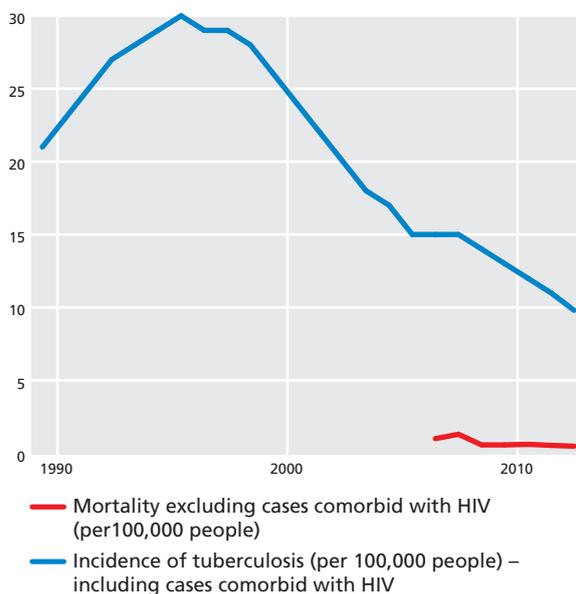
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



needs to fall to 13 cases per 100,000 live births. In 2011 The Bahamas had 37 maternal deaths per 100,000 live births (an estimate from UN agencies/World Bank), indicating that this target is unlikely to be reached, especially given that there has been little notable reduction in the number of maternal deaths since 1990. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In the period 2007–12 this figure stood at 99 per cent, suggesting that the target has been virtually achieved.

Finally, countries working towards the MDGs have been aiming for a reduction in the prevalence of HIV, malaria and other diseases, in line with MDG 6. The prevalence of HIV among people aged 15–49 in The Bahamas has fallen by a third since the 1990s, but remains significant. Levels of estimated incidences of TB have also seen a net reduction since 1990, although net mortality from TB, excluding cases comorbid with HIV, is slightly higher than it was in 1990, suggesting that this goal is unlikely to be met.

For definitions, sources and explanations on the MDGs see page 314.

Universal health coverage

More than half of health care in The Bahamas (54 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 7.5 per cent of GDP in 2012, of which 46 per cent (US\$759 per capita) was covered by the government.

In 2015 the government of The Bahamas announced plans to ensure that all Bahamians have access to affordable, efficient and quality health care. These plans began with the launching of an implementation strategy to ensure that all Bahamians have access to a Universal Health Insurance system. The Minister of Health, Dr Perry Gomez, said that ‘the mission of The Bahamas government is to provide quality health care that is affordable and accessible to all its citizens’.

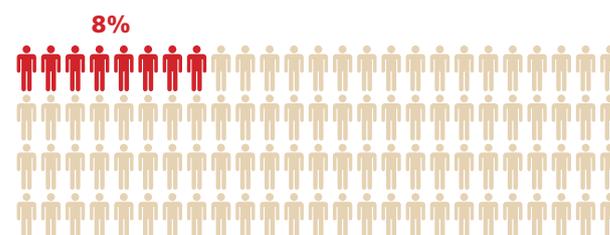
The ministry plans to have implement Universal Health Insurance by January 2016. By this time every legal Bahamian resident, regardless of their financial means, will have access to health care from private and public doctors, clinics and hospitals.

The Bahamas has signed and ratified the International Covenant on Economic, Social and Cultural Rights, which includes ‘the right of

everyone to the enjoyment of the highest attainable standard of physical and mental health’. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 29,000 people in The Bahamas are over the age of 65 – eight per cent of the total population (2013). At the age of 60 a person living in The Bahamas can be expected to live for an additional 22 years on average. There are extensive measures in place in The Bahamas for the care of the elderly community; the Ministry of Health administers community nursing, wherein geriatric nurses conduct monthly visits to elderly Bahamians, and provide counselling and referral services. Home visitations services are provided by the government, with qualified nurses available to administer medication, change dressings and provide personal care for older patients in their homes. The Ministry of Health also provides resources such as wheelchairs, crutches and zimmer frames for older residents, in some cases for a small fee.

Population over 65



The government has established a specialist elderly care hospital, the Geriatric Hospital, which provides full-time in-patient health care for elderly residents who cannot be cared for at home. The hospital has five wards, each with 24–26 beds. There are two gerontology clinics that cater specifically for the older community on the islands. The clinics are located in community health clinics in Anne’s Town and Fleming Street. There are five government-owned and 11 privately owned residential homes on the islands.

Further information

Ministry of Health: www.bahamas.gov.bs

Commonwealth Health Online:
www.commonwealthhealth.org/health/americas/bahamas_the



Bangladesh



KEY FACTS

Joined Commonwealth:	1972
Population:	156,595,000 (2013)
GDP p.c. growth:	3.7% p.a. 1990–2013
GNI p.c.:	US\$900 (2013)
UN HDI 2014:	World ranking 142
Life expectancy:	71 years (2013)
Under-five mortality rate (per 1,000 live births):	41 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	1.2% (2012)

General information

The People's Republic of Bangladesh is a fertile and densely populated delta country in southern Asia bordered by the Bay of Bengal, India and Myanmar (formerly Burma).

Climate: Tropical monsoon-type. Hot and humid April–October, with the monsoon running June–September. Cool and dry November–March. The country is vulnerable to cyclones, which can be devastating – the cyclone of April 1991 killed 138,000 people. In November 2007 Cyclone Sidr hit the southern coastal strip of Bangladesh, killing many people and destroying thousands of homes.

Environment: The most significant issues are severe overpopulation, high risk of flooding in large areas of the country, soil degradation and erosion, groundwater contamination by naturally occurring arsenic and poisoning of fish by use of commercial pesticides.

Population: 156,595,000 (2013); the population density is among the world's highest; 33 per cent of people live in urban areas and 14 per cent in urban agglomerations of more than one million people.

The population growth rate stood at 1.6 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 20 per 1,000 people (47 in 1970), controlled by vigorous family planning schemes, and life expectancy was 71 years (44 in 1970).

Economy: Bangladesh is classified as a low-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Bangladesh was 33 deaths per 1,000 live births in 2013, with an under-five mortality rate of 41 deaths per 1,000 live births in 2013. The country's under-five mortality rate has fallen steadily since the early 1990s and, since 2010, the figure has met the target of 48 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2012 the most prominent known causes of death for children below the age of five years were prematurity (20 per cent), intrapartum-related complications (14 per cent) and acute respiratory infections (13 per cent). Other contributory causes were congenital anomalies (nine per cent), neonatal sepsis (11 per cent) and injuries (seven per cent). In 2013 Bangladesh had an adjusted maternal mortality ratio of 170 deaths per 100,000 live births (this figure was estimated at 240 deaths per 100,000 live births by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 59 per cent of all mortality in Bangladesh in 2012. The most prevalent NCDs in Bangladesh are cardiovascular diseases, which accounted for 17 per cent of total deaths across all age groups in 2012. Non-communicable variants of respiratory diseases, cancer and diabetes contributed 11 per cent, ten per cent and three per cent to total mortality, respectively (2012). Injuries accounted for nine per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 32 per cent of all

mortality in 2008. Prevalence of HIV in Bangladesh, as a percentage of people aged 15–49 years, is below 0.1 per cent (2012). While there was relatively little decline in estimated incidence of tuberculosis (TB) in the period 1990–2012, estimated mortality (when mortality data excludes cases comorbid with HIV) has been falling steadily since 1994 and has decreased in total by more than a quarter. The number of confirmed cases of malaria fell by more than a third in the period 2006–12, while confirmed deaths from the disease saw a dramatic decrease from 508 in 2006 to 11 in 2012.

The most commonly diagnosed mental illness in Bangladesh is schizophrenia.

Health systems: In 2012 government expenditure on health was 1.2 per cent of GDP, equivalent to US\$9 per capita. In 2011 there were 36 doctors, and 22 nurses and midwives per 100,000 people. Additionally, in the period 2007–11, 31 per cent of births were attended by qualified health staff and in 2011, 93 per cent of one-year-olds were immunised with one dose of measles. In 2012 the UN estimated that 85 per cent of the people were using an

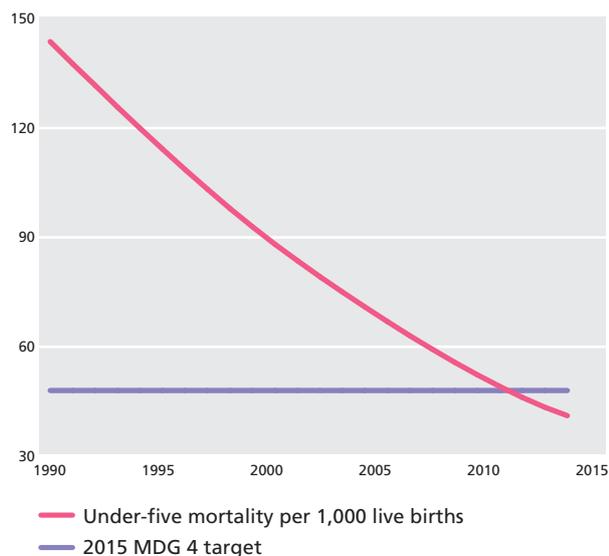
improved drinking water source and 57 per cent had access to adequate sanitation facilities. Bangladesh has maintained a high level of immunisation coverage against diseases such as diphtheria, whooping cough, tetanus and measles, with 93 per cent of one-year-olds in 2013 immunised with one dose of measles. In 2007 the country had six pharmaceutical personnel per 100,000 people.

Public and private health facilities are scarce. BRAC, the country's largest non-governmental organisation (NGO), fulfils a significant proportion of the country's health care delivery. The Bangladesh Medical College and Hospital, United Hospital and Kumudini Hospital are among the largest private hospitals in Bangladesh. Outside of Dhaka, health facilities become even scarcer. The country nonetheless has a burgeoning pharmaceutical manufacturing industry, which, in addition to fulfilling most of the local demand, also caters for international markets. The government has predicted that the industry should surpass the ready-made garment industry in ten to 15 years' time in terms of export earnings (2011).

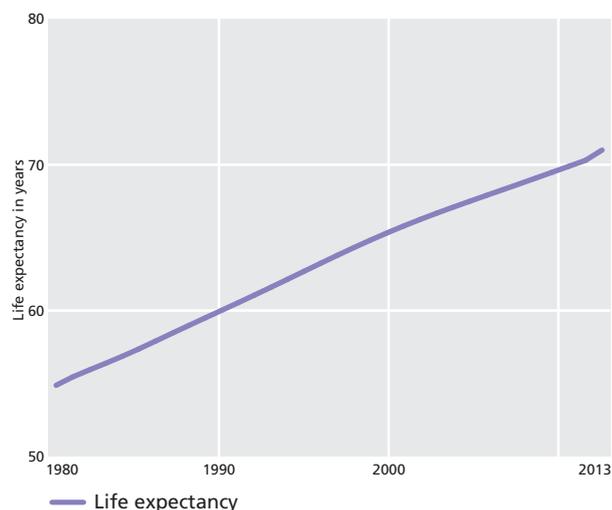
The most recent act relating to mental health in Bangladesh is the Lunacy Act 1912. A draft version of a new Mental Health Act was drawn up in 2006, although it has yet to be enacted.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

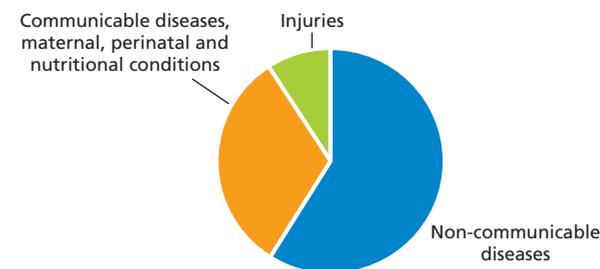
Under-five mortality



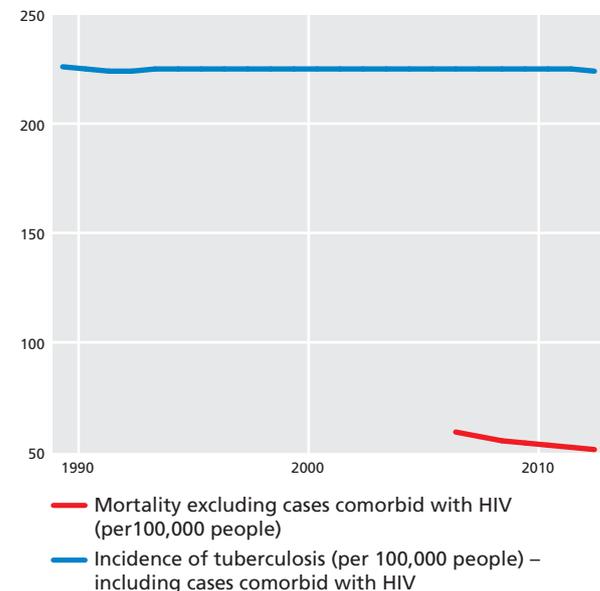
Life expectancy



Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



For Bangladesh to achieve the target for the reduction of child mortality, which form MDG 4, Bangladesh should have reduced under-five deaths per 1,000 live births to 48 and increase measles immunisation to 100 per cent by 2015. In 2013 under-five mortality stood at 41 deaths per 1,000 live births, so this target has been achieved. Measles immunisation was 93 per cent in 2012, which suggests that with continued good progress the country could achieve MDG 4.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. When applying this target to Bangladesh, maternal mortality should fall to 200 cases per 100,000 live births. In 2013 Bangladesh had an adjusted maternal mortality ratio of 170 deaths per 100,000 live births (the figure was estimated at 240 deaths per 100,000 live births by UN agencies/World Bank in 2010). Based on the data reported by the country, the maternal mortality target has already been achieved. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2011 this figure stood at 31 per cent, suggesting that this target is highly unlikely to have been met.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. HIV prevalence is low in Bangladesh and the number of confirmed deaths from malaria has dropped significantly between 2000 and 2011. However, other diseases such as rubella and TB are present at considerable levels, indicating that this goal is unlikely to be achieved when the final data is analysed.

For definitions, sources and explanations on the MDGs see page 314.

Universal health coverage

Roughly two-thirds of health care in Bangladesh (66 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 3.6 per cent of GDP in 2012, of which 34 per cent (US\$9 per capita) was covered by the government. Bangladesh's public spending on health was 1.2 per cent of GDP in 2012, equivalent to US\$9 per capita.

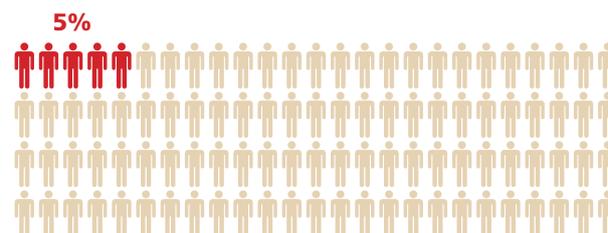
In recent years the government of Bangladesh has made moves towards strengthening the country's health sector. This can be seen in the implementation of the National Health Policy in 2011 and the National Population Policy in 2012. Additionally, the government has established professional regulatory and statutory bodies responsible for ensuring the provision of standardised and quality health services, and protecting citizens' rights to gain access to health services.

The World Health Organization (WHO) Country Cooperation Strategic Agenda (2014–17) for Bangladesh identifies the promotion of universal health coverage with strengthened health systems based on primary health care as one of five strategic priorities for WHO co-operation.

Bangladesh was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1998 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Approximately 7.4 million people in Bangladesh are over the age of 65 – five per cent of the population (2013). At the age of 60 a person living in Bangladesh can be expected to live for an additional 18 years, on average. Bangladesh's Old Age Allowance dates back to 1998. Today, monthly pension credits are paid by the state at a rate of US\$4 per person on a means-tested basis.

Population over 65



Care of the elderly in Bangladesh, as is traditional in Bangladeshi society, is generally carried out by the family and members of the community. There are several international charities operating in the country that seek to provide care and assistance to the elderly and their families, the most notable of which is the UK-based Sir William Beveridge Foundation.

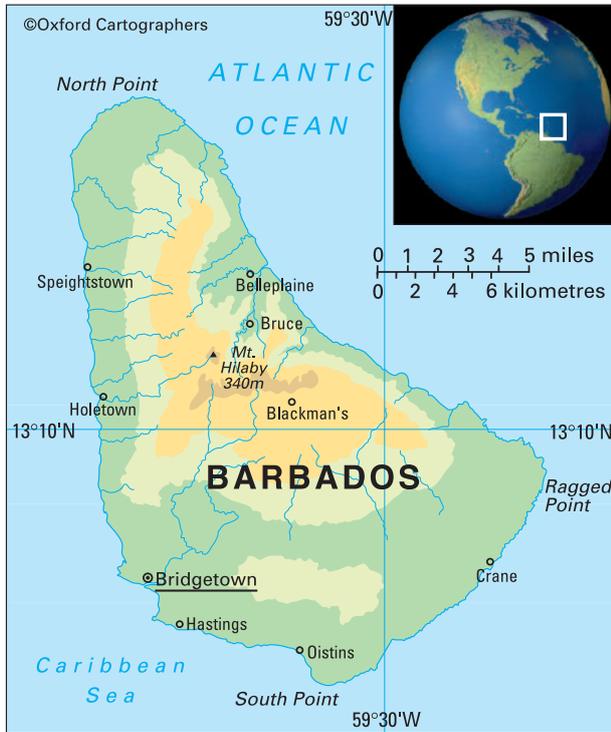
Further information

Ministry of Health and Family Welfare: www.mohfw.gov.bd

Commonwealth Health Online: www.commonwealthhealth.org/health/asia/bangladesh



Barbados



KEY FACTS

Joined Commonwealth:	1966
Population:	285,000 (2013)
GDP p.c. growth:	0.9% p.a. 1990–2013
GNI p.c.:	US\$15,172 (2013)
UN HDI 2014:	World ranking 59
Life expectancy:	75 (2013)
Under-five mortality rate (per 1,000 live births):	14 (2013)
Largest contribution to mortality:	Cancer
Government health expenditure:	4.1% of GDP (2012)

General information

Barbados, the most easterly of the Caribbean islands, lies south of Saint Lucia, east of St Vincent and the Grenadines, and north of Trinidad and Tobago.

Climate: Mild subtropical. In the December–June dry season, cooling north-east trade winds blow steadily; the wet season is humid and hotter, but the climate is generally pleasant even then, thanks to sea breezes. The island is on the southern edge of the West Indian hurricane zone.

Environment: The most significant environmental issues are pollution of coastal waters from waste disposal by ships; soil erosion; and the threatened contamination of the underground water supply by illegal disposal of solid waste.

Population: 285,000 (2013); 32 per cent of people live in urban areas. The population growth rate stood at 0.4 per cent p.a. between the years of 1990 and 2013. In 2012 the birth rate was 13 per 1,000 people (22 in 1970) and life expectancy was 75 years (69 in 1970).

The population is 93 per cent of African descent, three per cent of European descent and the rest of Asian or mixed descent (2000 census).

Economy: Barbados is classified a high-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Barbados was 13 deaths per 1,000 live births in 2013, with an under-five mortality rate of 14 deaths per 1,000 live births in 2013. The under-five mortality rate has decreased overall between 1990 and 2013. The under-five mortality rate is not yet in line with the target of six deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2012 the three most prominent known causes of death for children below the age of five years were congenital anomalies (26 per cent), prematurity (14 per cent) and intrapartum-related complications (14 per cent). Other contributory causes were acute respiratory infections (ten per cent) and neonatal sepsis (two per cent). In 2013 Barbados had an adjusted maternal mortality ratio of 52 deaths per 100,000 live births (estimate by UN agencies/World Bank).

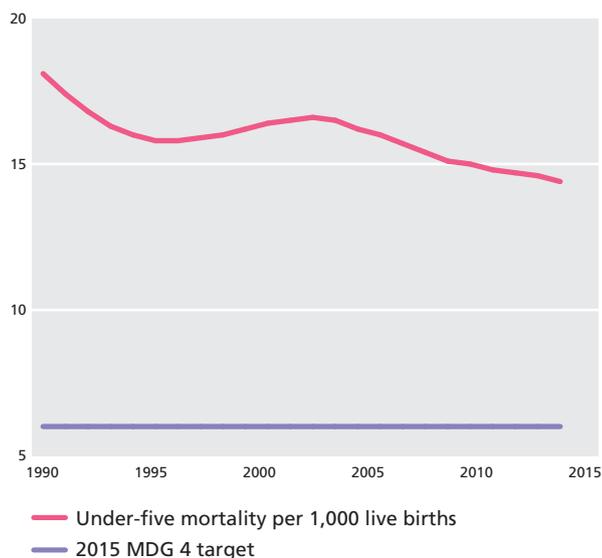
Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 84 per cent of all mortality in Barbados in 2012. The most prevalent NCD in Barbados is cancer, which accounted for 29 per cent of total deaths across all age groups in 2012. Cardiovascular diseases, diabetes and non-communicable variants of respiratory diseases contributed 28 per cent, nine per cent and two per cent to total mortality, respectively (2012). Injuries accounted for five per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 11 per cent of all mortality in Barbados in 2012. The prevalence of HIV, as a percentage of the population aged 15–49 years, has grown by almost one per cent since 1990 and currently stands at 0.9 per cent (2012). Barbados is a non-endemic country for malaria. Since 1990 there have been significant fluctuations in the incidence of tuberculosis (TB), which equated 2.2 per 100,000 people in 1990 and 1.4 per 100,000 people in 2013, as well as slight fluctuations but no significant change in estimated mortality (when mortality data excludes cases comorbid with HIV), which equalled 0.7 per 100,000 people in both 1991 and 2012.

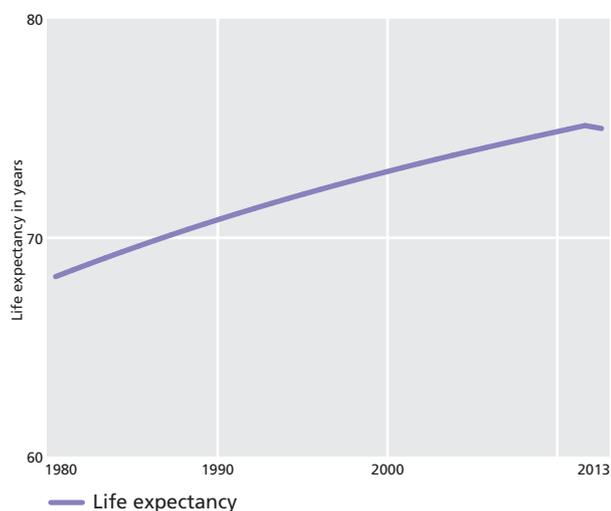
Patients diagnosed with schizophrenia represented the highest proportion of those treated in the psychiatric hospital in Barbados in 2007. Also common were mental health conditions relating to psychoactive substance misuse.

Health systems: In 2012 government expenditure on health was 4.1 per cent of GDP, equivalent to US\$615 per capita. In the most recent survey, conducted between 1997 and 2010, there were 181 doctors, and 486 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 100 per cent of births were attended by qualified health staff and, in 2013, 90 per cent of one-year-olds were immunised with one dose of measles. In 2010 the UN estimated that 100 per cent of people were using an improved drinking water source and had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Barbados has 93 pharmaceutical personnel per 100,000 people. Barbados has a national health service, and the general health profile and life expectancy of a developed country.

Under-five mortality



Life expectancy



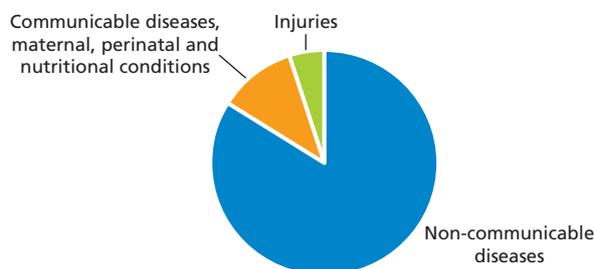
The largest hospital and main health care centre in Barbados is the government-run Queen Elizabeth Hospital on the outskirts of the capital, Bridgetown. Bayview Hospital, also on the outskirts of Bridgetown, is a major private hospital. There is also a network of district hospitals and polyclinics spread throughout the island delivering publicly funded health care. Barbados has a small but established manufacturing base for pharmaceuticals. The Barbados Drug Service conducts an annual open tender for pharmaceuticals and medical supplies, procuring drugs from local manufacturers and, more extensively, from sources in the USA, Canada, South America and Europe.

The most recent act of parliament relating to mental health in Barbados is the Mental Health Act of 1985. Mental health is also covered in general health policy.

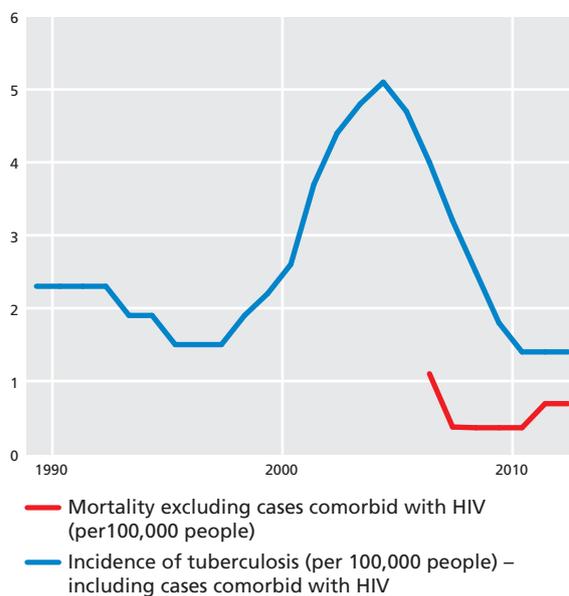
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

In order to achieve the targets for the reduction of child mortality that form MDG 4, Barbados should reduce under-five deaths per 1,000 live births to six and increase measles immunisation to 100 per cent by 2015. In 2013 under-five mortality stood at 14 deaths per 1,000 live births, down from 20 deaths per 1,000 live births in 2011, and measles immunisation at 90 per cent. This data suggests that the country is unlikely to achieve MDG 4.

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. When applying this target to Barbados, maternal mortality should fall to 30 cases per 100,000 live births. In 2013 Barbados had an adjusted maternal mortality ratio of 52 maternal deaths per 100,000 live births (an estimate from UN agencies/World Bank), thus indicating that this target is unlikely to be met. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional – a target that was achieved in 2012.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Barbados' prevalence of HIV has more than doubled since 1990 – in 2012, 0.9 per cent of 15–49 year olds were HIV positive – while the levels of other communicable diseases are low.

Estimated TB incidence and mortality (when mortality data excludes cases comorbid with HIV) due to TB have fluctuated but not changed significantly between 1990 and 2012. Work is needed to ensure that HIV/AIDS does not become a generalised epidemic. The UN considers an epidemic as 'generalised' when more than one per cent of the population is HIV-positive.

For definitions, sources and explanations on the MDGs see page 314.

Universal health coverage

Roughly a third of health care in Barbados (34 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 6.3 per cent of GDP in 2012, of which 66 per cent (US\$615 per capita) is covered by the government.

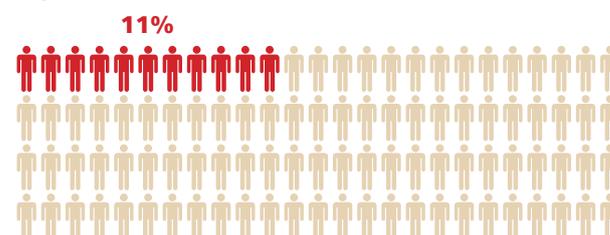
Barbados has a government-provided health service modelled on the National Health Service in the UK. Citizens of Barbados are able to access free, quality health care in health clinics and government-run hospitals across the country. Prescriptions, and dental and ophthalmology services are also provided free of charge.

Barbados was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1976 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Approximately 31,000 people in Barbados are over the age of 65 – 11 per cent of the total population (2013). At the age of 60 a person living in Bangladesh can be expected to live for an additional 20 years on average. The Non-Contributory Old Age Pension was introduced in 1937. Today, monthly payment credits are paid by the state at a rate of US\$299 per person (2007–12) on a means-tested basis.

Barbados has the general health profile and life expectancy of a developed country and, like the developed world, has been challenged by an ageing population. There are high-quality nursing and elderly care services available at nursing homes and retirement centres across Barbados. The Pan American Health Organization

Population over 65



(PAHO) has officially endorsed Barbados for its capabilities to provide quality nursing and elderly care services. The Barbados Elderly Care Association (BECA) is a non-profit organisation representing the elderly care sector in Barbados. In 2013 BECA began developing a policy document for owners of nursing and residential homes to outline standards of care.

The Barbados Alzheimer's Association is a charitable organisation that provides medical information concerning Alzheimer's disease and is committed to providing support services for those who suffer with Alzheimer's disease, and their families.

Further information

Ministry of Health: www.health.gov.bb

Commonwealth Health Online: www.commonwealthhealth.org/health/americas/barbados



Belize



KEY FACTS

Joined Commonwealth:	1981
Population:	332,000 (2013)
GDP p.c. growth:	2.0% p.a. 1990–2013
GDP p.c.:	US\$4,660 (2013)
UN HDI 2014:	World ranking 84
Life expectancy:	74 years (2013)
Under-five mortality rate (per 1,000 live births):	17 (2012)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	3.8% of GDP (2012)

General information

Belize forms part of the Commonwealth Caribbean and is located in Central America, bordering Mexico to the north and Guatemala to the west and south.

Climate: The climate is subtropical, moderated by trade winds. The average temperature November–January is 24°C and May–September 27°C; inland there is a greater range. There are two dry seasons: March–May and August–September (the Maugre season). Annual rainfall ranges from 1,290 mm in the north to 4,450 mm in the south. The country is susceptible to hurricanes; Hurricane Iris in October 2001 – the fourth in three years – was the

worst for 40 years. Several years later, in August 2007, Hurricane Dean hit Belize, affecting the livelihoods of up to 2,500 families in the northern parts of the country.

Environment: The most significant environmental issues are deforestation; water pollution from sewage, industrial effluents and agricultural run-off; and solid waste disposal.

Population: 332,000 (2013); 44 per cent of people live in urban areas. The population growth rate was 2.5 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 23 per 1,000 people (40 in 1970) and life expectancy was 74 years (66 in 1970).

Belizeans descend from Mayans, Caribs and the many groups who came as loggers, settlers, refugees, slaves and imported labour: English, Spanish, Africans and East Indians.

According to the 2000 census, the population comprises 49 per cent Mestizos (Maya-Spanish), 25 per cent Creoles (Afro-European), 11 per cent Mayans and six per cent Garifuna (Afro-Carib). There is a small Mennonite farming community that speaks a dialect of German and a fast-growing Chinese community.

Economy: Belize is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Belize was 14 deaths per 1,000 live births in 2013, with an under-five mortality rate of 17 deaths per 1,000 live births in 2012. Since the early 1990s the under-five mortality rate has been decreasing steadily, from approximately 44 deaths per 100,000 in 1990 to 17 deaths per 100,000 in 2013. This decrease is encouraging and means that the under-five mortality rate is close to the country's target of 13 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2012 the three most prominent known causes of death for children below the age of five years were prematurity (14 per cent), congenital anomalies (12 per cent) and intrapartum-related complications (ten per cent). Other contributory causes were injuries, neonatal sepsis and acute respiratory infections, contributing eight, six and five per cent, respectively.

In the period 2007–13 Belize had an adjusted maternal mortality ratio of 45 deaths per 100,000 live births (this figure was estimated at 53 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 65 per cent majority of all mortality in Belize in 2012. The most prevalent NCDs are cardiovascular diseases, which accounted for 25 per cent of total deaths across all age groups in 2012. Cancer, diabetes and non-communicable variants of respiratory diseases contributed 11 per cent, nine per cent and four per cent to total mortality, respectively (2012). Injuries accounted for 16 per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 19 per cent of all mortality in 2012. The prevalence of HIV in Belize, as a percentage of people aged 15–49 years, stood at 1.5 per cent in 2012 and overall prevalence has increased by more than seven times since 1990 (0.3 per cent). Confirmed cases of malaria in Belize have shown a dramatic decline in the period 2000–12. Estimated incidence of tuberculosis (TB) has remained largely unchanged in the period 1990–2012, while estimated mortality (when mortality data excludes cases comorbid with HIV) has seen significant fluctuation and in 2012 was double that of 1990.

The most commonly diagnosed mental illnesses in Belize are mood disorders and schizophrenia.

Health systems: Belize’s public spending on health was 3.8 per cent of GDP in 2011, equivalent to US\$168 per capita. In the most recent survey, conducted between 1997 and 2010, there were 83 doctors, and 196 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 95 per cent of births were attended by qualified health staff and, in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2012, 99 per cent of the country’s population was using an improved drinking water source and 91 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–10, reports that Belize has 39 pharmaceutical personnel per 100,000 people.

The public health system of Belize is made up of a network of seven district hospitals, divided into four regions. In total there are around 40 health centres and a further 40 posts. Private hospitals include La Loma Luz Hospital in the Cayo District and Universal Health Services in Belize City. Belize Medical Associates, a private hospital also located in Belize City, is considered to be the best equipped and most modern hospital in the country.

The majority of pharmaceuticals within the country are imported from the USA due to the undeveloped domestic processing industry, which concentrates on finishing products from imported ingredients. The entire health, medical and pharmaceutical sector is governed by the Ministry of Health, which is run under the

jurisdiction of the Public Health Act and the Health Services and Institutions Act.

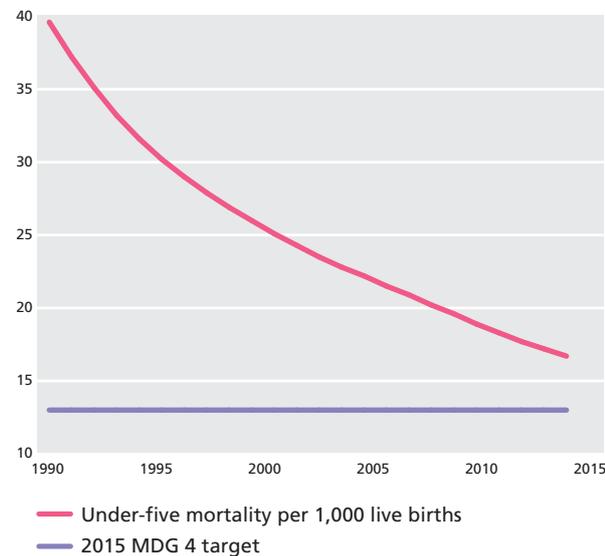
The most recent act relating to mental health in Belize is the Mental Health Act (1957).

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

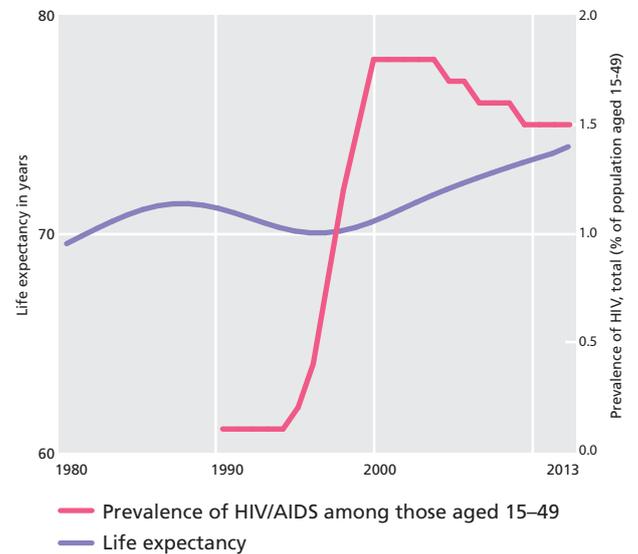
To achieve MDG4, Belize should have reduced under-five deaths per 1,000 live births to 13 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2012 under-five mortality stood at 17 deaths per 1,000 live births and measles immunisation at 99 per cent, suggesting that Belize could achieve MDG 4 if it increased its rate of progress. Universal measles immunisation has almost been achieved. At its current trajectory, Belize is likely to meet the target for under-five mortality.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. The maternal mortality in Belize, therefore, has to fall to 18 cases per 100,000 live births. In the period 2007–11 Belize had a reported maternal mortality ratio of 45 deaths per 100,000 live births (this figure was estimated at 53 deaths per 100,000 by UN agencies/World Bank in 2010). Based on the data reported by the country to date, this target is unlikely to be achieved when the 2015 data is analysed. Part of the goal also stipulates that 100 per cent of births must be attended by a

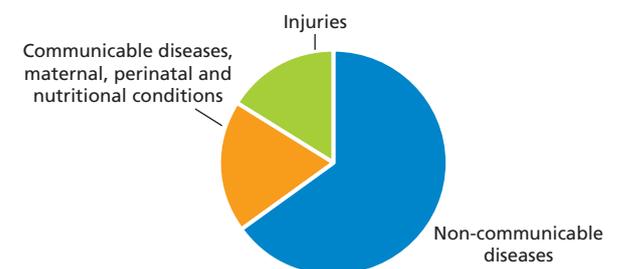
Under-five mortality



Life expectancy and HIV/AIDS



Mortality by cause of death (% of all deaths), 2012



skilled health professional. In the period 2007–12 this figure stood at 94 per cent, so this target is not far from being achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Levels of estimated incidence of TB have remained the same over the period 1990–2012, while mortality (when mortality data excludes cases comorbid with HIV) from TB has almost doubled over this time. There has been a slight reduction in HIV prevalence in the period 2005–12, although since 1995 the general trend has been upward and it remains a general epidemic. Given this data, further progress is required if MDG 6 is to be achieved.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Only a third of health care in Belize (35 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 5.8 per cent of GDP in 2012, of which 65 per cent (US\$168 per capita) was covered by the government.

In 2003, following a successful pilot project, the government of Belize established a national health insurance (NHI) scheme. The government announced that the scheme would serve not only as a system of raising money for health care, but that it would also change the way that health funding is spent through the principle of an ‘informed purchaser’ from a ‘choice of providers’. At the time of writing, the NHI catered to more than 36,000 persons on the south side of Belize City.

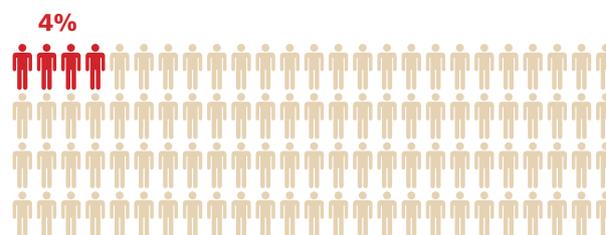
In 2007 the WHO report *Everybody’s Business: Strengthening Health Systems to Improve Health Outcomes* defined six basic functions that would help Belize achieve its universal health care goals. These included the statements that: health services must be efficient, effective and accessible; access to medicines, vaccines and medical technologies must be equitable; and health financing systems must raise adequate funds for health, ensuring that people can access affordable services.

Belize has signed but not ratified the International Covenant on Economic, Social and Cultural Rights, which includes ‘the right of everyone to the enjoyment of the highest attainable standard of physical and mental health’. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Approximately 13,000 people in Belize are over the age of 65 – four per cent of the total population (2013). At the age of 60, a person living in Belize can expect to live for an additional 21 years on average. Belize’s non-contributory pension programme was introduced in 2003. Today, monthly pension credits are paid by the state at a rate of US\$51 per person (2007–12). Overall, public pension spending is equivalent to 0.2 per cent of the country’s total economic output (2011).

In 2003 the government of Belize established the National Council on Ageing (NCA) as a response to the implementation of the National Policy for Older Persons, which passed through the cabinet in June 2002. The council was developed to facilitate the development and implementation of plans and programmes to improve and enhance the quality of life of older people, in part by ensuring the basic human rights of older persons are protected.

Population over 65



In 2006 the NCA teamed up with the Florida Association of Volunteer Action in the Caribbean and Americas, and Florida International University to provide training services in home health care to volunteers, support workers and family members of older persons.

Another organisation in Belize that helps to cater for care in the elderly community is HelpAge Belize, an affiliate of HelpAge International. HelpAge Belize runs nine day centres for older men and women across the country and in 2011 began looking into the feasibility of introducing a non-contributory pension for all older citizens.

Further information

Ministry of Health: www.belize.gov.bz

Commonwealth Health Online: www.commonwealthhealth.org/health/americas/belize



Botswana



KEY FACTS

Joined Commonwealth:	1966
Population:	2,021,000 (2013)
GDP p.c. growth:	2.8% p.a. 1990–2013
GNI p.c.:	US\$7,730 (2013)
UN HDI 2014:	World ranking 109
Life expectancy:	48 years (2013)
Under-five mortality rate (per 1,000 live births):	47 (2013)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	3% of GDP (2012)

General information

The Republic of Botswana is a large, landlocked plateau in the centre of Southern Africa, bordered by South Africa, Namibia, Zambia and Zimbabwe.

Climate: Botswana lies across the Tropic of Capricorn. The climate ranges from semi-arid through subtropical to temperate. Eastern Botswana is temperate, with enough rainfall to support arable farming, but rainfall decreases and temperature range increases westwards and southwards. Summer (October–April) is the rainy season and is very hot. Rainfall varies from 650 mm per annum in the east to 230 mm in the south-west. May–October is usually dry. In winter the nights can be cold and sometimes frosty, especially in

the desert. Mean maximum temperature at Gaborone is 32.5°C. From August, annual seasonal winds cross the Kalahari from the west, raising dust and sandstorms.

Environment: The most significant environmental issues are overgrazing, desertification and limited resources of fresh water.

Population: 2,021,000 (2013); 57 per cent of people live in urban areas. The population growth rate stood at 1.6 per cent p.a. between the years of 1990 and 2013, with rapid growth in urban areas. In 2013 the birth rate was 24 per 1,000 people (46 in 1970) and life expectancy was 48 years, down from a peak of 63 years in the early 1990s, as a result of AIDS (52 in 1970).

Around 80 per cent of the people are of Setswana-speaking origin and most of the rest of Kalanga-speaking origin. Bushmen (i.e. San or Basarwa), Herero, Mbukushu, Yei, Mazezuru, whites and others constitute the balance.

Economy: Botswana is classified as an upper-middle income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Botswana was 46 deaths per 1,000 live births in 2013, with an under-five mortality rate of 47 deaths per 1,000 live births in 2013. Following a rise from 1990 to 2000, the under-five mortality rate in Botswana has decreased from approximately 87 deaths per 100,000 live births in 2001 to 47 deaths per 100,000 live births in 2013. Although this decrease is encouraging, the under-five mortality rate has not yet reached the country's target of 17 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2012 the three most prominent known causes of death for children below the age of five years were prematurity (24 per cent), intrapartum-related complications (14 per cent) and acute respiratory infections (13 per cent). Other contributory causes were congenital anomalies (nine per cent), neonatal sepsis (eight per cent), diarrhoea (seven per cent), HIV/AIDS (five per cent), injuries (five per cent) and measles (one per cent). In 2013 Botswana had an adjusted maternal mortality ratio of 170 deaths per 100,000 live births.

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions in Botswana accounted for an estimated 60 per cent of all mortality in 2012. The prevalence of HIV in Botswana, as a percentage of people aged 15–49 years, stood at 21.9 per cent in 2012. Levels of the disease peaked in the early 2000s and, although there has been a decline in recent years, HIV prevalence in the country is still very high. In the period 2000–12 the number of confirmed cases of, as well as deaths from, malaria dropped significantly. Estimated incidence of tuberculosis (TB) has seen an overall decrease in the period 1990–2013 after peaking in 1998, while estimated mortality (when mortality data excludes cases comorbid with HIV) has also

decreased in the same time. Injuries accounted for nine per cent of deaths in 2012.

Non-communicable diseases (NCDs) in Botswana accounted for an estimated 46 per cent of all mortality in 2012. The most prevalent NCDs in Botswana are cardiovascular diseases, which accounted for 18 per cent of total deaths across all age groups in 2012. Non-communicable variants of respiratory diseases, cancer and diabetes contributed two per cent, five per cent and three per cent to total mortality, respectively (2012).

The most commonly diagnosed mental illness in Botswana is depression, with HIV often cited as a leading cause for depression. There are suggestions that poor mental health can exacerbate some symptoms of HIV.

Health systems: In 2012 government expenditure on health was three per cent of GDP, equivalent to US\$217 per capita. In the most recent survey, conducted between 1997 and 2010, there

were 34 doctors, and 284 nurses and midwives per 100,000 people. Additionally, in 2010, 99 per cent of births were attended by qualified health staff and, in 2013, 94 per cent of one-year olds were immunised with one dose of measles. In 2011, 97 per cent of the country's population was using an improved drinking water source and 64 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–10, reports that Botswana has 19 pharmaceutical personnel per 100,000 people.

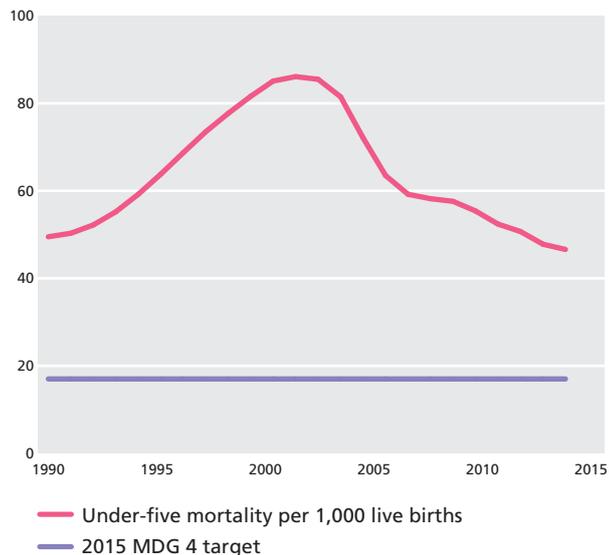
Botswana has three referral hospitals (in Gaborone, Francistown and Lobatse), seven district hospitals, around 16 primary hospitals and more than 250 health clinics, which are involved in the implementation of AIDS control and prevention programmes.

Botswana's small pharmaceutical industry produces some basic pharmaceutical products, as well as producing and repackaging vaccines. The distribution subsector of the industry is involved in importing, wholesaling and retailing activities.

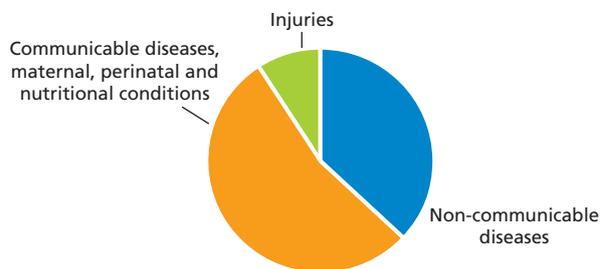
The most recent act relating to mental health in Botswana is the Mental Health Act 1997 and mental health receives specific mention in general health policy. The 2003 mental health policy is the most recent addition to mental health laws.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

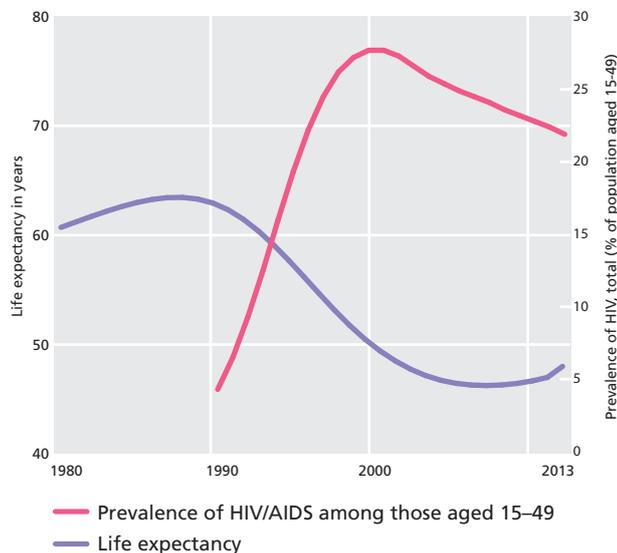
Under-five mortality



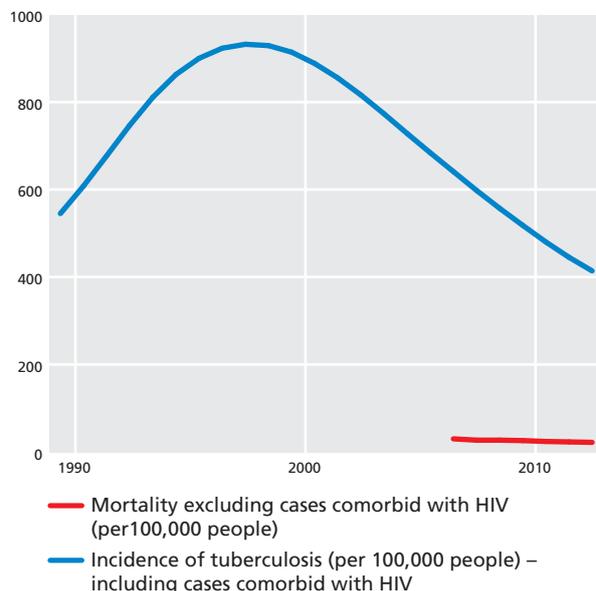
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



To achieve MDG 4, Botswana should have reduced under-five deaths per 1,000 live births to 17 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 47 deaths per 1,000 live births and measles immunisation at 99 per cent. This suggests that, while Botswana is on track to achieve the measles immunisation target, the goal for under-five deaths is unlikely to be met.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. The maternal mortality rate in Botswana, therefore, should fall to 35 cases per 100,000 live births. In 2013 Botswana had an adjusted maternal mortality rate of 170 deaths per 100,000 live births. Based on the data reported by the country to date, this target is unlikely to be met when the final data is analysed. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2013 this figure stood at 99 per cent, meaning that this target is close to being achieved. EU funding has been given to Botswana to help train health care professionals in emergency obstetric skills, while causes of maternal deaths are to be carefully monitored in order to help the country improve its record in maternal and child mortality.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. HIV prevalence is very high and has shown significant overall increase since 1990. While there has been an encouraging decline in estimated incidence of, and mortality from, both malaria and TB (when TB mortality data excludes cases comorbid with HIV), dramatic progress in all of these areas is required if the country is to come close to achieving MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Nearly half of health care in Botswana (44 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 5.3 per cent of GDP in 2012, of which 56 per cent (US\$217 per capita) was covered by the government.

Botswana has yet to implement a health insurance plan providing equal access to its citizens. The country faces challenges in terms of determining different needs versus costs. However, under the current policy, no one is turned away from health care if they are unable to pay and there are some free services available, such as for antiretroviral therapy. Children under the age of 12 years are able to access health care for free.

The WHO Country Co-operation Strategic Agenda (2008–12) identifies strengthening health systems as one of its priorities 'with a focus on the organisation of integrated service delivery and financing to achieve universal health coverage.'

Botswana is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to the ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care for the elderly: Approximately 70,000 people in Botswana are over the age of 65 – four per cent of the total population. At the age of 60 a person living in Botswana can be expected to live for an additional 16 years on average. Botswana's state old-age



Botswana Nurses Union

Delivering quality nursing services



The Nurses Association of Botswana had been in existence since 1968 and after its dissolution the Botswana Nurses Union (BONU) was duly registered as a trade union in June 2012. In accordance with the Trade Unions and Employers' Organization Act of 1983, from which BONU derives its mandate, the Union was officially launched in October 2012 in Francistown.

BONU is engaged in:

- Advocacy for improved conditions of service for nurses and midwives
- Establishing the Department of Research and Continuous Education for the professional advancement of its members
- Improving members' socio-economic status by designing inter alia funeral schemes, subsidised loan grants, counselling services and support for ailing members through 'Thusa Mooki' (Help-a-nurse project)
- Hosting the first Nurses and Midwifery International Nursing Conference in partnerships with AVIWE Healthcare Resource and Training Institute in November 2015

As the national mouthpiece for nurses in Botswana, BONU – in its pursuit to deliver quality-nursing services – is committed to improving the conditions of all nurses. Through establishing a reliable social media network, the Union hopes to improve communication to its members.

BONU is affiliated to regional and international nursing organisations to retain its professional identity among nursing unions.

'Nurses provide an essential service and yet are not always adequately compensated or valued by society. We intend to sensitise members of the public about the importance of our union, as well as establishing union structures around the country.'

Contact

Ms Ruth S. Mokgethi, CEO

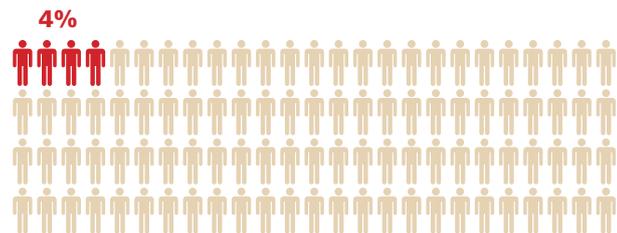
**Plot 2684, Phiri Crescent, P.O. Box 126,
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www.nab.org.bw

Population over 65



pension dates back to 1906. Today, monthly pension credits are paid by the state at a rate of US\$26 per persons (2007–12) on a means-tested basis. Overall, public pension spending is equivalent to 1.3 per cent of the country's total economic output (2009).

The elderly receive free health care. Historically, as in other African countries, older people were traditionally cared for by younger generations of their extended family, but urbanisation has seen some people isolated from their families, while AIDS has seen many people outlive their children. Old people's homes have begun to open to fill this need, usually funded by charities and the government. The government also offers some other services to support the elderly, such as food parcels.

Further information

Ministry of Health: www.moh.gov.bw

Commonwealth Health Online:
www.commonwealthhealth.org/health/africa/botswana



Brunei Darussalam



KEY FACTS

Joined Commonwealth:	1984
Population:	418,000 (2013)
GDP p.c. growth:	-0.5% p.a. 1990–2013
GDP p.c.:	US\$38,563 (2013)
UN HDI 2014:	World ranking 30
Life expectancy:	79 years (2013)
Under-five mortality rate (per 1,000 live births):	10 (2012)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	2.1% of GDP (2012)

General information

Brunei Darussalam (Brunei – ‘Abode of Peace’) is a small state in South-East Asia on the north-west coast of the island of Borneo, in the Indonesian Archipelago. Its 161-km coastline faces the South China Sea. On the land side, it is enclosed by the Malaysian state of Sarawak, which divides it in two.

The districts of Brunei-Muara, Tutong and Belait make up the larger, western part of the country; Temburong district is in the east.

Climate: Tropical, with high humidity and heavy rainfall. There is no distinct wet season; the wettest months are January and November. Much of the rain falls in sudden thundery showers.

Environment: The most significant environmental issue is seasonal smoke/haze resulting from forest fires in Indonesia.

Population: 418,000 (2013); 77 per cent of people live in urban areas, concentrated along the coast. The population growth rate stood at 2.1 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 16 per 1,000 people (36 in 1970) and life expectancy was 79 years (67 in 1970).

Malays comprise some two-thirds of the population and Chinese (about 11 per cent), Europeans, Indians and other races make up the balance.

Economy: Brunei is classified as a high-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Brunei Darussalam was eight deaths per 1,000 live births in 2013, with an under-five mortality rate of ten deaths per 1,000 live births in 2013. There has been some fluctuation in Brunei’s under-five mortality rate since 1990. In 2010 the three most prominent known causes of death for children below the age of five years were congenital anomalies (28 per cent), prematurity (25 per cent) and injuries (ten per cent). Other contributory causes were intrapartum-related infections (eight per cent), acute respiratory infections (four per cent), neonatal sepsis (two per cent) and diarrhoea (one per cent). In 2013 Brunei had an adjusted maternal mortality ratio of 27 deaths per 100,000 live births (estimate by UN agencies/World Bank).

Burden of disease: Non-communicable diseases (NCDs) in Brunei accounted for an estimated 81 per cent majority of all mortality in 2012. The most prevalent NCDs in Brunei are cardiovascular diseases, which accounted for 34 per cent of total deaths across all age groups in 2012. Cancer, diabetes and non-communicable variants of respiratory diseases contributed 17 per cent, 11 per cent and seven per cent to total mortality, respectively (2012).

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated ten per cent of all mortality in Brunei in 2012. A government paper on HIV/AIDS reported that there were 63 people in the country living with HIV at the end of 2013. The country is free from malaria. Estimated incidence of tuberculosis (TB) has seen a very slight overall decrease in the period 1990–2013, peaking in 2000. Estimated mortality (when mortality data excludes cases comorbid with HIV) from TB has remained largely the same over this period, despite some fluctuation.

The most commonly diagnosed mental illnesses in Brunei Darussalam are depression, personality disorder and anxiety.

Notably, reports state that cases of eating disorders and suicide are rare. Psychiatric disorders related to alcohol use are uncommon, although not unheard of, due to prohibition.

Health systems: In 2012 government expenditure on health was 2.1 per cent of GDP, equivalent to US\$862 per capita. In the most recent survey, conducted between 1997 and 2011, there were 150 doctors, and 773 nurses and midwives per 100,000 people. There is universal maternal health care in the country and in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. The most recent survey available, conducted in 2010, reports that Brunei has ten pharmaceutical personnel per 100,000 people.

Health care in Brunei is fully subsidised by the government and there are ten hospitals as well as health clinics, travelling clinics and a flying doctor service. The petroleum and natural gas industry has its own separate Occupational Health Service and the armed forces also have their own medical service, so workers in these sectors are not covered by the Ministry of Health's Occupational Health Division. Brunei's pharmaceutical industry benefits from the wealth of raw materials provided by the country's rainforests, which have

allowed it to focus on the niche halal pharmaceutical market. The country nonetheless imports most of its pharmaceutical requirements.

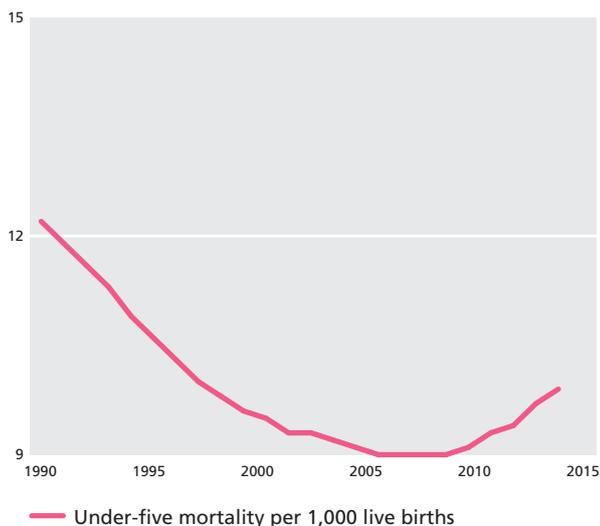
The most recent act relating to mental health in Brunei Darussalam is the Mental Health Order, enacted in November of 2014 and replacing the Lunacy Act of 1929. Key concepts outlined in the act highlight the vital need for continuity of care and implementation of a monitoring system to ensure patient welfare.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

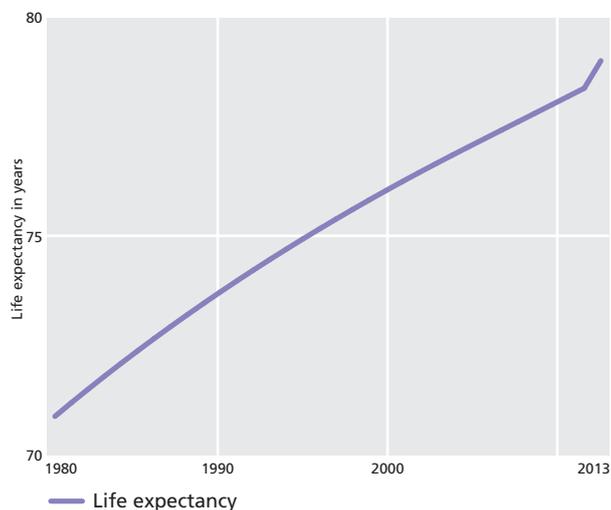
To achieve MDG 4, Brunei Darussalam should have reduced under-five deaths per 1,000 live births to four and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2012 under-five mortality stood at ten deaths per 1,000 live births and measles immunisation at 99 per cent. While universal measles immunisation has almost been achieved, under-five mortality will need to have halved for the country to achieve MDG 4.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. The maternal mortality ratio for Brunei, therefore, should fall to seven cases per 100,000 live births. In 2013 Brunei had an adjusted ratio of 27 maternal deaths per 100,000 live births (an estimate from UN agencies/World Bank),

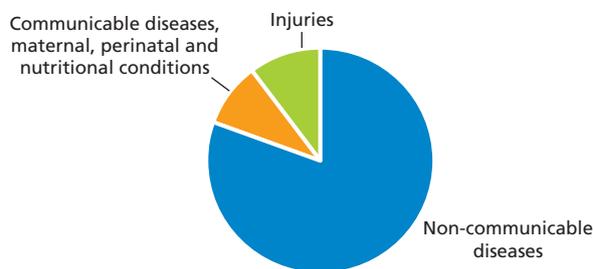
Under-five mortality



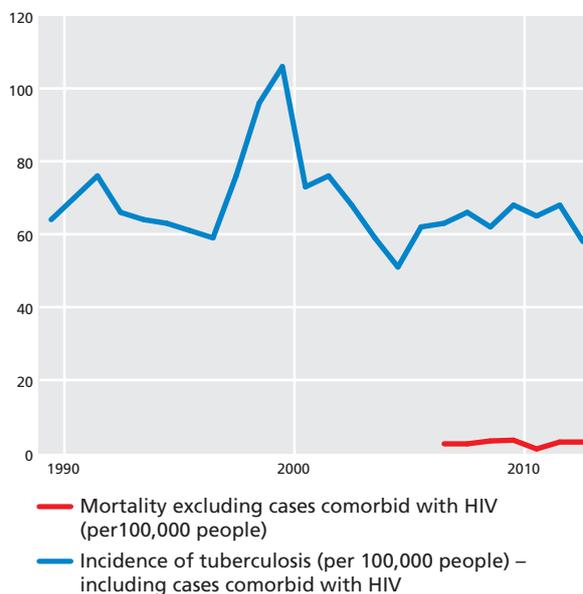
Life expectancy



Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



indicating that this target is unlikely to be met. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In the period 2007–12 this figure stood at 100 per cent, so this target has already been achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Malaria has already been eradicated in the country. Estimated TB incidence and mortality (when mortality data excludes cases comorbid with HIV) have remained roughly the same since 1990. There is insufficient data from international agencies to confirm the country's progress on this goal for HIV/AIDS. Significant improvements would have to have been made to target TB prevention and enhance treatment if this goal is to be achieved.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Just eight per cent of health care in Brunei was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 2.3 per cent of GDP in 2012, of which 92 per cent (US\$862 per capita) was covered by the government.

Brunei Darussalam boasts one of the highest-quality publicly run health care systems in the world. Medical care is provided free of charge to all citizens. Foreign nationals working in the country are entitled to health care at a small cost. There are public hospitals located in each of the country's four districts, the biggest of which is Raja Isteri Pengiran Anak Saleha in Bandar Seri Begawan. There are also two private hospitals for those who have private medical insurance.

The government-funded Flying Medical Services division helps ensure medical care is available to those in remote areas by airlifting any citizens who require emergency medical assistance to the nearest hospital if they live in remote rural villages. On occasion, the government has funded the expense of sending citizens abroad for special medical treatments.

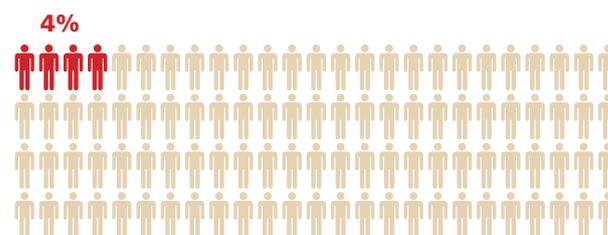
While access to health care in Brunei is already very good, the government is continuously working to keep improving the health provision and government funding for health care is considered to be an important investment in the country's future. To this end, in February 2015 the Minister of Health attended the universal health coverage (UHC) ministerial meeting in Singapore, which resulted in a consensus among ministers to tackle the challenges posed by the demographic trends among the elderly to ensure that UHC remains sustainable and adaptable.

Brunei Darussalam is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to the ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Around 18,000 people in Brunei Darussalam are over the age of 65 – four per cent of the total population (2013). At the age of 60, a person living in Botswana can be expected to live for an additional 21 years on average. Brunei Darussalam's old-age allowance dates back to 1984. Today, monthly pension credits are paid by the state at a rate of US\$201 per person (2007–12) on a universal basis.

Over the past decade the government has been heavily involved in catering to the needs of the elderly in society. This began in 2005 with the setting up of the Homecare Program for Older Persons. This was followed by the establishment of the National Council of Social Issues in 2008, which is responsible for developing policies and action plans regarding social care of the elderly.

Population over 65



More recently, the government released the Plan of Actions for Older Persons and People with Disabilities (2011), which addresses key issues faced by the country's ageing population, including access to health care and housing, as well as planning for social protection and recreational facilities. This has led to the setting up of a government-run activity and support centre for the elderly in 2013. Elderly citizens are entitled to free health care as citizens of Brunei.

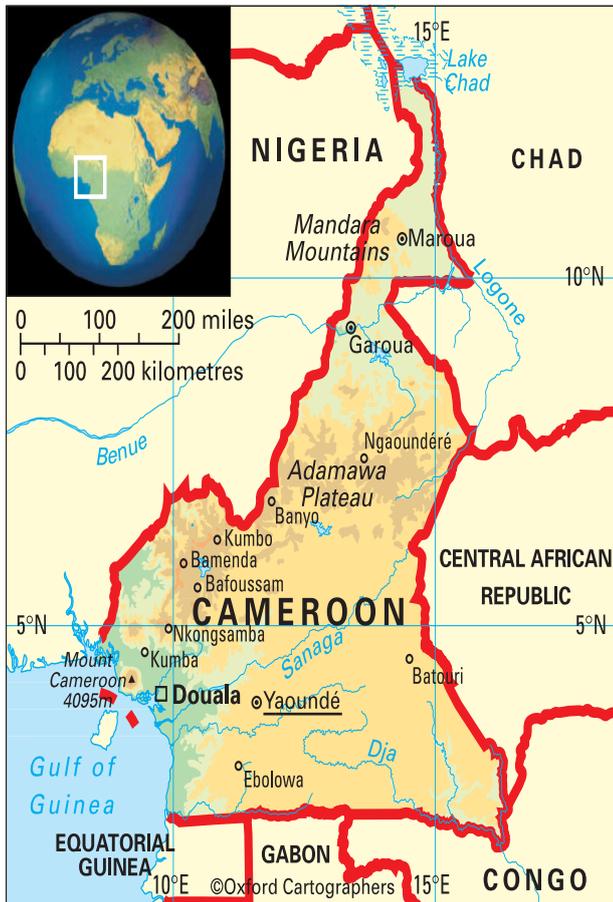
Further information

Ministry of Health: www.moh.gov.bn

Commonwealth Health Online: www.commonwealthhealth.org/health/asia/brunei_darussalam



Cameroon



River Wouri 'Rio dos Camarões' ('shrimp river'), after the many shrimps. Cameroon is in central Africa, bounded clockwise (from the west) by the Gulf of Guinea, Nigeria, Chad, Central African Republic, Congo, Gabon and Equatorial Guinea. The country comprises ten regions: Adamaoua, Centre, Coastal, East, Far North, North, North-West, South, South-West and West.

Climate: In the northern Sahel region, there is a long dry season October–April, with temperatures varying from cool to very hot. Further south, on the Adamaoua plateau, there are sharp drops in temperature at night. In the south the climate is hot and humid, with two rainy seasons, in September/October and from March to June.

Environment: The most significant issues are overgrazing, desertification, deforestation, poaching and overfishing.

Population: 22,254,000 (2013); 53 per cent of people live in urban areas and 25 per cent in urban agglomerations of more than one million people. The population growth rate stood at 2.7 per cent p.a. between 1990 to 2013. In 2013 the birth rate was 37 per 1,000 people (45 in 1970) and life expectancy was 55 years (44 in 1970).

The population is ethnically diverse. In the north, the people are mostly Hausa, Fulbé (Fulani), Sudanese and Choa Arab. In the west, the Bamiléké are the biggest ethnic group, followed by Tiker and Bamoun. South of the River Sanaga, there are Bantu groups: Fang, Ewondo, Boulou, Eton, Bassa, Bakoko and Douala. Some pygmies (including Baka) live in the south-eastern forested country.

Economy: Cameroon is classified as a lower-middle-income economy by the World Bank.

KEY FACTS

Joined Commonwealth:	1995
Population:	22,254,000 (2013)
GDP p.c. growth:	0.0% p.a. 1990–2013
GNI p.c.:	US\$1,270 (2013)
UN HDI 2014:	World ranking 152
Life expectancy:	55 years (2013)
Under-five mortality rate (per 1,000 live births):	95 (2012)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	2% of GDP (2012)

General information

Cameroon is called Cameroun in French, Kamerun in German, Camarões in Portuguese and Cameroon in English. The country's name derives from camarões, meaning 'shrimps', so called by the 15th-century Portuguese explorer Fernando Po who named the

Health

Child and maternal health: The rate of infant mortality in Cameroon was 61 deaths per 1,000 live births in 2012, with an under-five mortality rate of 95 deaths per 1,000 live births in 2013. There has been a consistent reduction in the under-five mortality rate since 1998, however, the rate remains very high and has not yet reached the country's target of 45 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2012 the three most prominent causes of death for children below the age of five years were acute respiratory infections (17 per cent), malaria and diarrhoea (both 12 per cent). Other contributory causes were prematurity (11 per cent), intrapartum-related complications (11 per cent), neonatal sepsis (six per cent) and congenital abnormalities (five per cent). In 2013 Cameroon had an adjusted maternal mortality ratio of 590 deaths per 100,000 live births (this figure was estimated at 670 deaths per 100,000 by UN agencies/World Bank in 2007–11).

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions in Cameroon accounted for an estimated 61 per cent majority of all mortality in 2012. The

prevalence of HIV in Cameroon, as a percentage of the population aged 15–49 years, stood at 4.3 per cent in 2012 – almost five times the 1990 figure. Confirmed deaths caused by malaria are reducing year on year, with just 3,209 deaths in 2012, compared to 7,673 in 2008. However, there was a sharp increase between the years of 2006 and 2008, during which time the number of deaths increased seven-fold. Estimated incidence of tuberculosis (TB) has been steadily falling since a peak in 2002–03, down to 235 in 2013. Estimated mortality from TB (when data excludes cases comorbid with HIV) has also been reducing since 2007.

There is little data available concerning common diagnoses of mental illness in Cameroon, although high rates of depression are often linked with raised levels of HIV/AIDS. Neuropsychiatric disorders contributed an estimated 6.1 per cent to the global burden of disease in 2008.

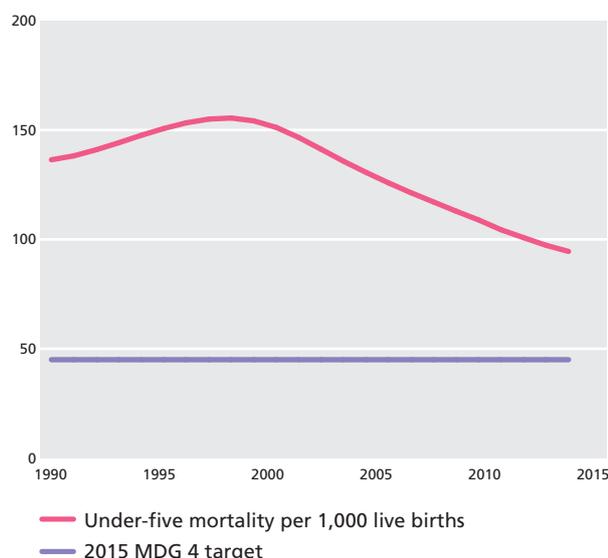
Non-communicable diseases (NCDs) in Cameroon accounted for an estimated 31 per cent of all mortality in 2012. The most prevalent

NCDs are cardiovascular diseases, which accounted for 11 per cent of total deaths across all age groups in 2012. Non-communicable variants of respiratory diseases, cancer and diabetes contributed two per cent, three per cent and two per cent to total mortality, respectively (2012). Injuries accounted for eight per cent of deaths in 2012.

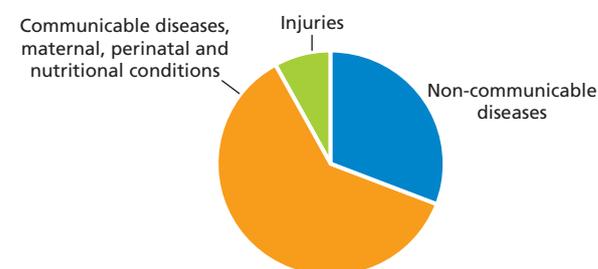
Health systems: In 2012 government expenditure on health was two per cent of GDP, equivalent to US\$20 per capita. In the most recent survey, conducted between 1997 and 2009, there were 19 doctors, and 160 nurses and midwives per 100,000 people. Additionally, in 2011, 64 per cent of births were attended by qualified health staff and, in 2013, 83 per cent of one-year-olds were immunised with one dose of measles. In 2012, 74 per cent of the country's population was using an improved drinking water source and 45 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Cameroon has less than one pharmaceutical professional per 100,000 people.

Cameroon has three referral hospitals, some 70 general hospitals and 50 private hospitals together with a wide network of public and private health centres. Facilities outside Yaoundé and Douala are extremely limited. There are between 300 and 400 pharmacies in the country. A handful of licensed wholesalers import pharmaceuticals, mainly from France and India.

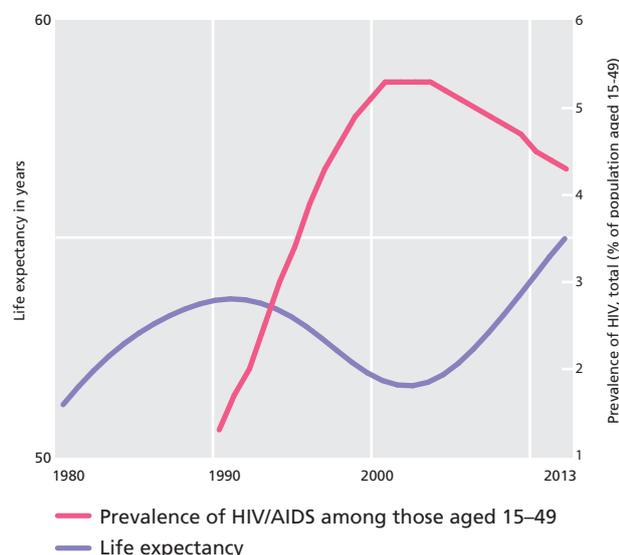
Under-five mortality



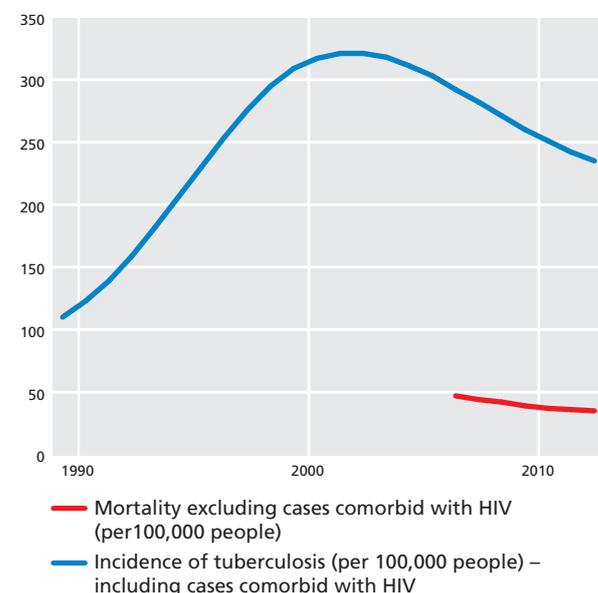
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



There is no officially approved mental health plan or policy, however, mental health is specifically mentioned in general health policy and other legislation.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Cameroon to achieve its targets for the reduction of child mortality, which forms MDG 4, it will have to have reduced under-five deaths per 1,000 live births to 45 and increased measles immunisation to 100 per cent when the 2015 data analysis is complete. In 2013 under-five mortality stood at 95 deaths per 1,000 live births and measles immunisation at 83 per cent, making it unlikely that Cameroon will achieve this goal.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Cameroon, maternal mortality should fall to 168 cases per 100,000 live births. In 2013 Cameroon had an adjusted maternal mortality ratio of 590 deaths per 100,000 live births. Based on the data reported by the country to date, Cameroon is unlikely to achieve the maternal mortality target. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2011, the most recent figure available, this stood at 64 per cent, so this target is unlikely to be met.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. The rate of HIV infection in the country rose significantly in the period 1990–2012, although it has been gradually decreasing since 2002. Deaths from malaria have been decreasing year on year since 2008, but remain three times the number of deaths seen in 2006. Levels of estimated mortality from TB (when data excludes cases comorbid with HIV) have been falling steadily since they peaked in 2002–03, but remain double the rate seen in 1990. Dramatic progress in these areas is required if the country is to come close to achieving MDG 6.

For definitions, sources and explanations on the MDGs see page 314.

Universal health coverage

Only a third of health care (34 per cent) was government funded in 2012. The remaining 66 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 5.1 per cent of GDP in 2012. Expenditure by government amounts to US\$20 per capita.

Since there is no national health coverage, those who fall below the poverty line are often unable to pay for services and thus go without. To compound this problem, there is a disparity between economically viable sections of the country, with many of the poorer areas lacking the funds to support doctors and nurses. Non-

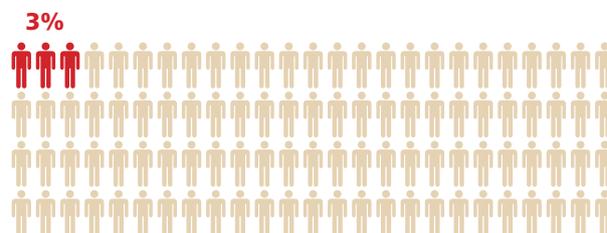
governmental organisations have set up free access to HIV/AIDS prevention education and treatment throughout the country. In 2014 the World Health Organization (WHO) funded efforts to vaccinate children under the age of five against polio following an outbreak.

The WHO Country Co-operation Strategic Agenda (2008–13) identifies the development of nationwide initiatives to reduce health inequalities, introduce health promotion throughout citizens' lifetimes and offer universal health coverage as three priorities. It also sets Cameroon the task of strengthening its health system by offering quality health care delivery and improving funding sources.

Cameroon was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1984 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 718,000 people in Cameroon are over the age of 65 – three per cent of the population (2013). At the age of 60, a person living in Cameroon can be expected to live for an additional 16 years on average. Overall, public pension spending is equivalent to 0.4 per cent of the country's total economic output (2005). Senior citizens often struggle financially as there is no national pension policy to cover all workers and private plans can be unreliable.

Population over 65



As in other African countries, older people are traditionally cared for by younger generations of their extended family, but AIDS has seen many people outlive their children. Financial help for the elderly tends to be limited to those who were employed in the formal sector.

In 2014 Cameroon opened its first palliative care unit at St Martin de Porres hospital in Yaoundé.

Further information

Ministry of Public Health: www.minsante.cm

Commonwealth Health Online: www.commonwealthhealth.org/health/africa/cameroon



KEY FACTS

Joined Commonwealth:	1931 (Statute of Westminster)
Population:	35,182,000 (2013)
GDP p.c. growth:	1.3% p.a. 1990–2013
GNI p.c.:	US\$52,200 (2013)
UN HDI 2014:	World ranking 8
Life expectancy:	81 (2013)
Under-five mortality rate (per 1,000 live births):	5 (2013)
Largest contribution to mortality:	Cancer
Government health expenditure:	7.7% of GDP (2012)

General information

The second largest country in the world, Canada comprises the northern half of the North American continent, bordering with the USA to the south and north-west (Alaska). Three oceans bound it: the Pacific to the west; the Arctic to the north; and the Atlantic to the east. Indented shores and numerous islands (some very large) give it the longest coastline of any country at 202,100 km. Cape Columbia on Ellesmere Island is 768 km from the North Pole.

Canada is a federation of ten provinces and three territories. The provinces (and provincial capitals) are: Alberta (Edmonton), British Columbia (Victoria), Manitoba (Winnipeg), New Brunswick (Fredericton), Newfoundland and Labrador (St John's), Nova Scotia (Halifax), Ontario (Toronto), Prince Edward Island (Charlottetown), Québec (Québec), Saskatchewan (Regina); and the territories (and capitals): Northwest Territories (Yellowknife), Nunavut (Iqaluit) and

Yukon (Whitehorse). Nunavut was formed in April 1999 – from the eastern and central parts of the Northwest Territories – as a semiautonomous region for the Inuit people.

The Arctic region, finally, consists of hundreds of islands, covering an area of 2,800 km by 1,800 km and reaching to Canada's northern tip.

Climate: In the High Arctic, temperatures rise above freezing for only a few weeks in July and August. The boreal forest area is snow-bound for more than half the year and precipitation is light, except along the Labrador coast.

The eastern Atlantic region has changeable winter temperatures and heavy snowfall. Fog is common, especially in Newfoundland and Labrador. July and August temperatures are 16–18°C. Winter also brings heavy snowfalls to the Great Lakes–St Lawrence region; but summer temperatures average almost 20°C, with heat waves.

The prairies have cold winters and hot summers, with rapid air flow bringing dramatic weather changes. Annual average precipitation in southern Saskatchewan is less than 350 mm, compared with 1,110 mm in Vancouver, to the west.

The coast of British Columbia has the most temperate climate in Canada.

Environment: The most significant environmental issues are damage to forests and lakes by acid rain, and contamination of oceans by waste and run-off from agriculture, industry and mining.

Population: 35,182,000 (2013); population density is among the lowest in the world, but large areas are climatically hostile – 85 per cent of Canadians live within 350 km of the US border. Some 81 per cent of people live in urban areas and 45 per cent in urban agglomerations of more than one million people. The population growth rate stood at 1.0 per cent p.a. in the period 1990–2013. In 2013 the birth rate was 11 per 1,000 people (17 in 1970) and life expectancy was 81 years (73 in 1970).

The 2001 census found that about 48 per cent of people were of British or Irish origin, 16 per cent of French origin, nine per cent German, 4.3 per cent Italian, 3.7 per cent Chinese, 3.6 per cent Ukrainian and 3.4 per cent Native American. More than 200,000 immigrants arrive each year from more than 150 countries. The provinces with the largest populations are Ontario (11.4 million; 38 per cent of the total), Québec (7.2 million; 24 per cent) and British Columbia (3.9 million; 13 per cent).

Economy: Canada is classified as a high-income economy by the World Bank.

Health

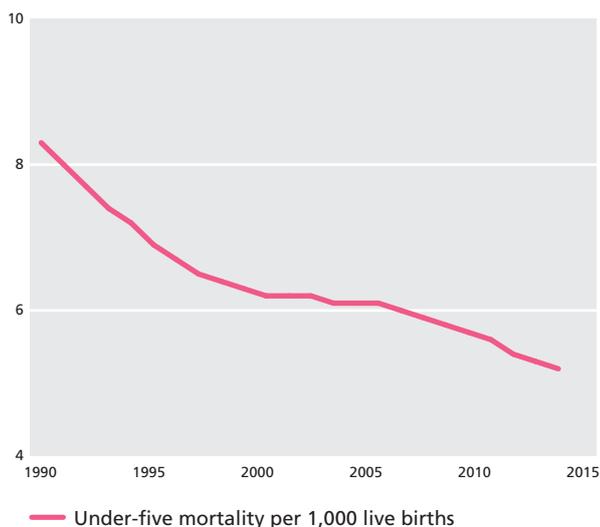
Child and maternal health: The rate of infant mortality in Canada was five deaths per 1,000 live births in 2013, with an under-five mortality rate of five deaths per 1,000 live births in 2013

– down from eight deaths in 1990. In 2012 the two most prominent known causes of death for children below the age of five years were prematurity (26 per cent) and congenital anomalies (23 per cent). Other contributory causes were intrapartum-related complications (ten per cent), injuries (three per cent), neonatal sepsis (three per cent) and acute respiratory infections (two per cent).

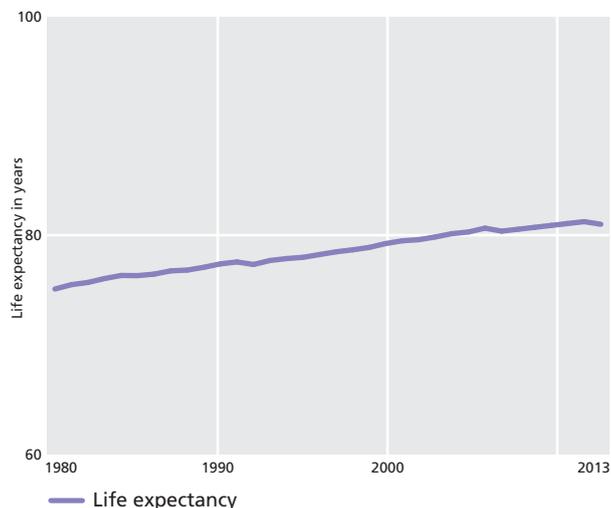
In 2013 Canada had an adjusted maternal mortality ratio of 11 deaths per 100,000 live births (estimate by UN agencies/World Bank).

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 89 per cent of all mortality in Canada in 2012. The most prevalent NCDs in Canada are cancer, which accounted for 30 per cent of total deaths across all age groups in 2012, and cardiovascular diseases, accounting for 27 per cent of all deaths. Non-communicable variants of respiratory diseases and diabetes contributed seven per cent and three per cent to total mortality, respectively (2012). Injuries accounted for six per cent of deaths in 2012.

Under-five mortality



Life expectancy

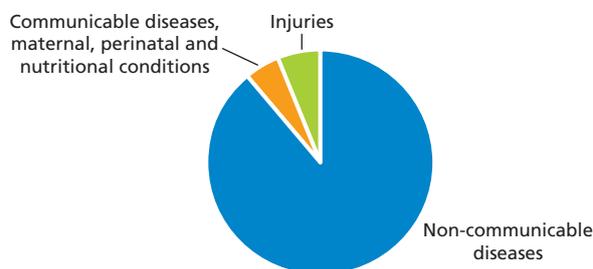


Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated four per cent of all mortality in 2012. Prevalence of HIV in Canada, as a percentage of the population aged 15–49 years, was approximately 0.4 per cent in 2012. In the period 1990–2011 levels of HIV showed a slight increase. Canada is considered a non-endemic country for malaria by the World Health Organization (WHO). Estimated incidence of tuberculosis (TB) has almost halved in the period 1990–2013, while estimated mortality (when mortality data excludes cases comorbid with HIV) has shown a slight decrease.

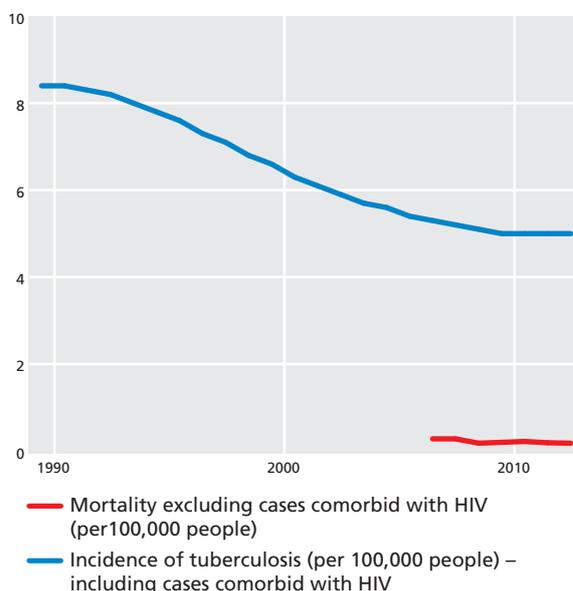
The most commonly diagnosed mental illnesses are anxiety disorders and depression.

Health systems: In 2012 government expenditure on health was 7.7 per cent of GDP, equivalent to US\$4,022 per capita. In the most recent survey, conducted between 1997 and 2011, there were 207 doctors, and 929 nurses and midwives per 100,000 people. There is universal maternal health care in Canada (in 2011 qualified health attendants were present at 98 per cent of births) and, in 2013, 95 per cent of one-year-olds were immunised with one dose of measles. According to a 2012 survey, 100 per cent of Canada’s population have access to improved water sources and adequate sanitation facilities. A survey conducted in the period 2000–11 showed that there are 76 pharmaceutical personnel per 100,000 people.

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



Health care in Canada is publicly funded, with an interlocking set of ten provincial and three territorial health insurance plans known as 'Medicare'. The Medicare system provides universal access to treatment, utilising both public and private hospital and physician services. There are 706 general public hospitals in Canada, 193 specialised public hospitals (such as chronic care and cancer centres) and 45 hospitals run by the private sector. The federal ministry in charge of Canada's health care policy is called Health Canada, though provincial and territorial governments are responsible for the management, organisation and delivery of health services to their residents.

There is a large pharmaceutical industry in Canada, which accounts for around 2.5 per cent of the global pharmaceutical market, making Canada the ninth largest pharmaceutical manufacturer in the world.

The most recent act relating to mental health in Canada is the Mental Health Act 1996.

Main health concerns and plans for remedial action: Canada currently has a life expectancy of 81 years, showing a sustained increase from 77 in 1990 and 80 in 2000. Gains have been primarily due to improved longevity for chronic diseases, particularly for older people with heart disease and cancer.

As with most developed countries, a low rate of communicable diseases is countered by a prevalence of NCDs. Risk factors such as obesity, raised cholesterol and blood pressure, as well as physical inactivity and tobacco use, are common in Canada and directly linked to cancer, diabetes, heart disease and respiratory diseases.

As of 2011 nearly one in four Canadians had been diagnosed with diabetes or pre-diabetes, and this rate is increasing with projections suggesting that by 2020 nearly ten per cent of the Canadian population will be living with diabetes. Health Canada has a number of policies specifically targeting these risk factors with the aim of reducing the number of preventable non-communicable diseases; strategies include the Canadian Diabetes Strategy, the Federal Tobacco Control Strategy and the Integrated Pan-Canadian Healthy Living Strategy.

The Preventing Chronic Disease Strategic Plan 2013–16 roadmap for the public health agency outlined maintaining a healthy weight as a priority for preventing chronic disease, as common risk factors – including unhealthy eating and physical inactivity – are increasing the proportion of people who are overweight or obese. Particular focus is being placed on diabetes, cancer, cardiovascular diseases and chronic respiratory diseases. The work towards achieving healthy weights, and consequently healthier lives, is being carried out by a wide range of partners throughout Canada. The strategic plan identifies effective programmes and disseminates relevant information through the Canadian Best Practices Portal, providing a basis for community programme development.

For definitions and sources see page 314.

Universal health coverage

Only a third of health care in Canada (30 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 10.9 per cent of GDP in 2012, of which 70 per cent (US\$4,022 per capita) was covered by the government.

Medicare, established on Canada Day (1 July) in Saskatchewan in 1962, quickly spread across the country. The proposal aimed to create the first government-run, universal health care coverage in North America. Each province and territory regulates its own health system. Private health insurance can also be taken to cover needs not met by Medicare coverage, such as dental insurance. Private insurance is often available through employers. Reforms to the policy on federal and provincial levels are expected to continue on a regular basis in order to keep up with the rapidly evolving demands of the growing population.

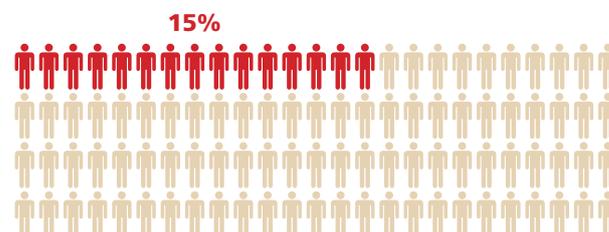
Improving indigenous disparities in health and its determinants is currently a priority of the Canadian government. As of 2001, life expectancy for the registered First Nations population is around 6.6 and 6.5 years lower than the Canadian average for males and females, respectively. Suicide among registered First Nations in Canada accounts for greater premature mortality than either circulatory diseases or cancer, with a suicide rate of 161 deaths per 100,000 people – 11 times the rate in the general population (29 deaths per 100,000 people) in 2010. The Aboriginal Health Transition Fund acts to improve health care service planning, delivery and access for Canada's indigenous populations, with specific projects addressing mental health, substance abuse and chronic disease management.

Health Canada works with various federal departments, as well as provincial and territorial partners, to support the health of First Nations and Inuit people and communities. This is achieved through facilitating improved access to health services, improving health outcomes and helping First Nations and Inuit to gain greater control of the health system. Some of the methods undertaken by Health Canada to improve the overall health of people are community-based health promotion and disease prevention programmes; primary, community and home care services; non-insured health benefits to supplement those provided by insurers; and programmes to control communicable diseases and address environmental health issues.

Canada was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1976 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Approximately 5.3 million people in Canada are over the age of 65 – 15 per cent of the population (2013). At the age of 60, a person in Canada can be expected to live for an additional 24 years on average. The Pension de la Securite Vieillesse

Population over 65



(old age security pension) system dates back to 1927. Today, monthly pension credits are paid by the state at a rate of US\$522 per person (2007–12) on a universal basis (with recovery from high-income earners). Overall, public pension spending is equivalent to 4.5 per cent of the country's total economic output (2009).

Long-term facilities-based care is not publicly funded under the Canada Health Act, but governed by provincial and territorial legislation. Different jurisdictions offer a range of services and cost coverage.

It is estimated that up to 15 per cent of Canadians aged 65 years and older have Alzheimer's disease or other forms of dementia. This figure is expected to double by 2031. The government has invested more than C\$236 million on dementia-related in the last decade.

All provinces have breast cancer screening programmes for women aged 50–69.

Further information

Health Canada: www.hc-sc.gc.ca

Commonwealth Health Online:

www.commonwealthhealth.org/health/americas/canada



Republic of Cyprus



In 1974 Turkish troops invaded and occupied the northern 36 per cent of the Republic of Cyprus. This area was later declared independent. The secession has not been recognised internationally, except by Turkey. The UN and Commonwealth have for many years protested about the occupation and tried to resolve the problem by negotiation.

Due to this division of the Republic of Cyprus, aggregated information is not always available. Economic and social data given here generally covers the government-controlled areas only, although legally and constitutionally the Republic of Cyprus includes the occupied north.

KEY FACTS

Joined Commonwealth:	1961
Population:	1,141,000 (2013)
GDP p.c. growth:	0.9% p.a. 1990–2013
GNI p.c.:	US\$25,210 (2013)
UN HDI 2014:	World ranking 32
Life expectancy:	80 years (2013)
Under-five mortality rate (per 1,000 live births):	4 (2012)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	3.2% of GDP (2012)

General information

Cyprus is an oval-shaped island with a 'pan-handle' north-east peninsula in the eastern Mediterranean. Its closest mainland neighbours are Turkey (to the north), and Syria and Lebanon (to the east).

Climate: Mediterranean type. Hot, dry summers (June–September) and mild, wet winters (November–March).

Environment: The most significant environmental issues are limited water resources, due to lack of rain in the summer and pollution of the island's largest aquifer by sea water; water pollution by sewage and industrial wastes; coastal degradation; and loss of wildlife habitats due to urbanisation.

Population: 1,141,000 (2013); 67 per cent of people live in urban areas. The population growth rate stood at 1.7 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 11 per 1,000 people (19 in 1970) and life expectancy was 80 years (71 in 1970).

The population comprises Greek Cypriots (approximately 80 per cent) and Turkish Cypriots, and small populations of Armenians, Maronites and 'Latins' (the term used in Cyprus for Roman Catholics of European origin). The population of the occupied north was estimated at 257,000 in 2005 and included around 160,000 Turkish illegal settlers.

Economy: Cyprus is classified as a high-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Cyprus was three deaths per 1,000 live births in 2013, with an under-five mortality rate of four deaths per 1,000 live births in 2013 – down from 11 deaths in 1990. In 2012 the two most prominent causes of death for children below the age of five years were congenital anomalies (37 per cent) and prematurity (22 per cent). Other contributory causes were injuries (six per cent), acute respiratory infections and neonatal sepsis (both three per cent). In 2013 Cyprus had an adjusted maternal mortality ratio of ten deaths per 100,000 live births (estimate by UN agencies/World Bank).

Burden of disease: Non-communicable diseases (NCDs) in Cyprus accounted for an estimated 90 per cent of all mortality in 2012. In 2012 the most prevalent NCDs were cardiovascular diseases (39 per cent) and cancer (24 per cent). Diabetes and non-communicable variants of respiratory diseases contributed seven per cent and six per cent to total mortality, respectively (2012). Injuries accounted for six per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated four per cent of all mortality in 2012. A government paper on HIV/AIDS reported that less than 0.1 per cent of the population were living with HIV in 2012. Cyprus is considered a non-endemic country for malaria by the World Health Organization. Estimated incidences of tuberculosis (TB) have increased slightly overall during the period 1990–2013, and estimated mortality (when mortality data excludes cases comorbid with HIV) has roughly doubled over this time.

The most commonly diagnosed mental illnesses in Cyprus are depression, personality disorders and anxiety. Mental health conditions relating to psychoactive substance misuse are also a serious health problem.

Health systems: In 2012 government expenditure on health was 3.2 per cent of GDP, equivalent to US\$841 per capita. In the most recent survey, conducted between 1997 and 2011, there were 229 doctors, and 446 nurses and midwives per 100,000 people. There is universal maternal health care in Cyprus (in 2011 qualified health attendants were present at 97 per cent of births) and, in 2013, 86 per cent of one-year-olds were immunised with one dose of measles. As surveyed in 2012, 100 per cent of Cypriots had access to improved water sources and adequate sanitation facilities. In a survey conducted in the period 2000–10, there were 21 pharmaceutical personnel per 100,000 people.

Health care in Cyprus is delivered through a combination of public and private services. The Ministry of Health is responsible for the organisation of the health care system in Cyprus and the provision of state-financed health care services to roughly 65 per cent of the population, including Turkish Cypriots inhabiting the occupied area

of the country. The private health sector is well developed. It is common for Cypriots to seek complimentary medical care as well as private health insurance in order to create more personalised treatment.

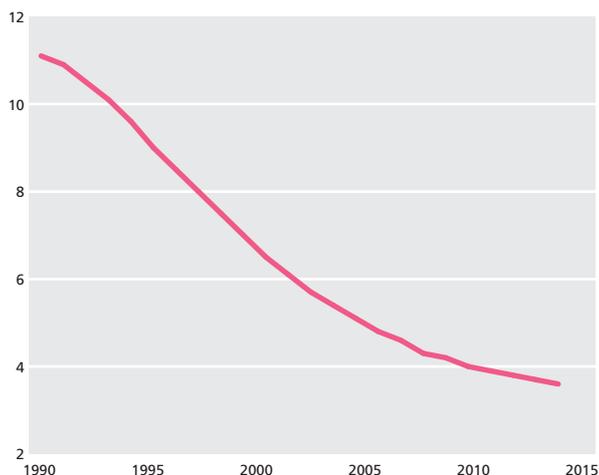
There are four main general hospitals in the public sector, with Nicosia General Hospital acting as the overall referral hospital for specialties not provided elsewhere in Cyprus. There are also three small rural hospitals, a mental health hospital and a hospital specialising in women and children. There are a variety of private hospitals and medical clinics throughout the country.

As with its health care system, the pharmaceutical market in Cyprus is divided into public and private sectors, operating independently at all levels to supply prescription and over-the-counter products. The public sector is funded by Government Medical Services with a limited number of products available only through hospital pharmacies. The private sector is dominated by large international pharmaceutical firms.

The most recent act relating to mental health in Cyprus is the 1997 Mental Health Law, amended in 2003 and 2007.

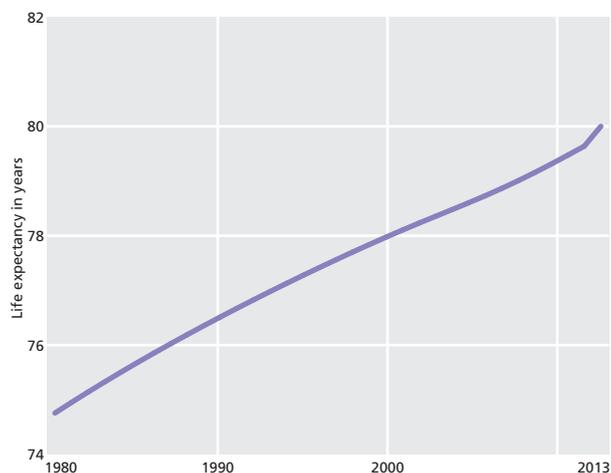
Main health concerns and plans for remedial action: Cyprus currently has a life expectancy of 80 years, showing a sustained increase from 76 years in 1990 and 78 years in 2000. Gains have been primarily due to reduced child and maternal mortality, and

Under-five mortality



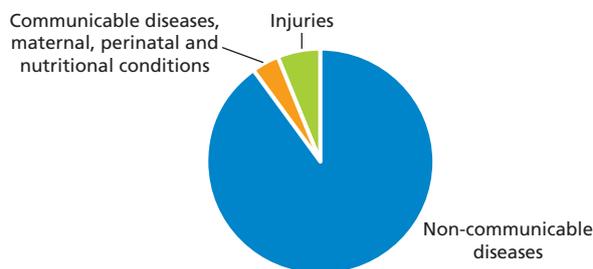
— Under-five mortality per 1,000 live births

Life expectancy

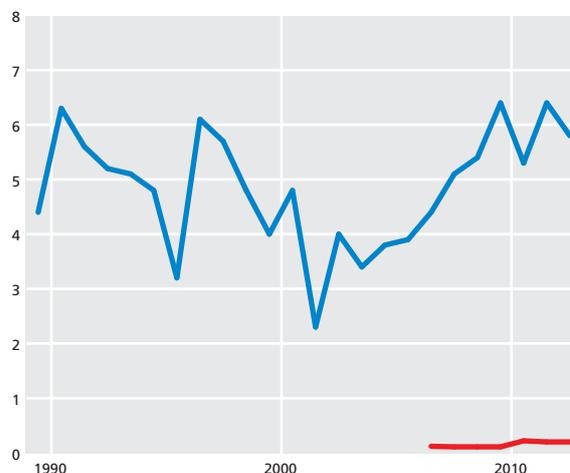


— Life expectancy

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



— Mortality excluding cases comorbid with HIV (per 100,000 people)
 — Incidence of tuberculosis (per 100,000 people) – including cases comorbid with HIV

improved longevity for other ages, particularly for older people with chronic diseases.

While traditional Mediterranean eating habits are low in fat and high in complex carbohydrates, this diet has been gradually abandoned in favour of fast-food dietary habits that are high in animal protein, saturated fat and cholesterol. This has contributed to the increasing amounts of overweight and obese Cypriots and, along with the prevalence of high blood pressure in Cyprus, is a major contributing factor to the high rate of cardiovascular diseases in the country.

Cyprus is committed to the EU Action Plan on Childhood Obesity 2014–20, which demonstrates the shared commitment of EU member states to addressing childhood obesity.

Additional health concerns in Cyprus are related mainly to health care issues associated with an ageing population. These include an increase in health care costs due to the rise in long-term chronic-degenerative disease, as well as an increase in cancer and cardiovascular diseases. Cyprus is focusing on preventive health care services, screening programmes and health education to combat the rise in preventable NCDs.

For definitions and sources see page 314.

Universal health coverage

Almost three-fifths of health care in Cyprus (57 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 7.3 per cent of GDP in 2012, of which 43 per cent (US\$841 per capita) was covered by the government.

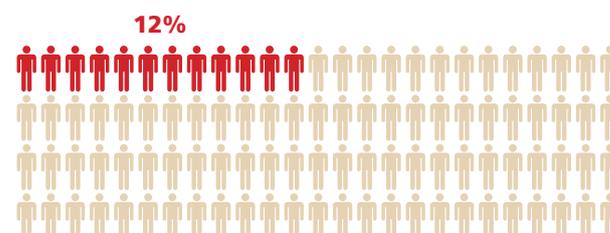
Public health care is accessed through a medical card, which is means tested. To be eligible for the card, citizens also need to have paid into the Social Insurance taxation scheme. There are small charges to pay even with the card – currently €3 for a visit to a GP and €6 for an appointment with a specialist. Those without a medical card can still access public health facilities, but will pay higher charges – currently €15 for a GP appointment and €30 to see a specialist. The medical card is available to Cypriot citizens and EU residents permanently residing in Cyprus.

The accident and emergency departments of public hospitals are available to everyone. All patients pay €10 for a visit to accident and emergency, with a few exemptions, such as soldiers and those with disabilities.

Cyprus has signed and ratified the International Covenant on Economic, Social and Cultural Rights, which includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Approximately 140,000 people in Cyprus are over the age of 65 – 12 per cent of the population (2013). At the age of 60, a person living in Cyprus can be expected to live for an additional 22 years on average. The social pension was introduced in 1995 and is awarded on a pensions-tested basis.

Population over 65



There are government home care services for the elderly who cannot care for themselves, and both public and private retirement homes.

Cyprus has a Community Service Programme for dementia sufferers, organised by the Mental Health Service, which sees home visits to support dementia patients and their caregivers.

Further information

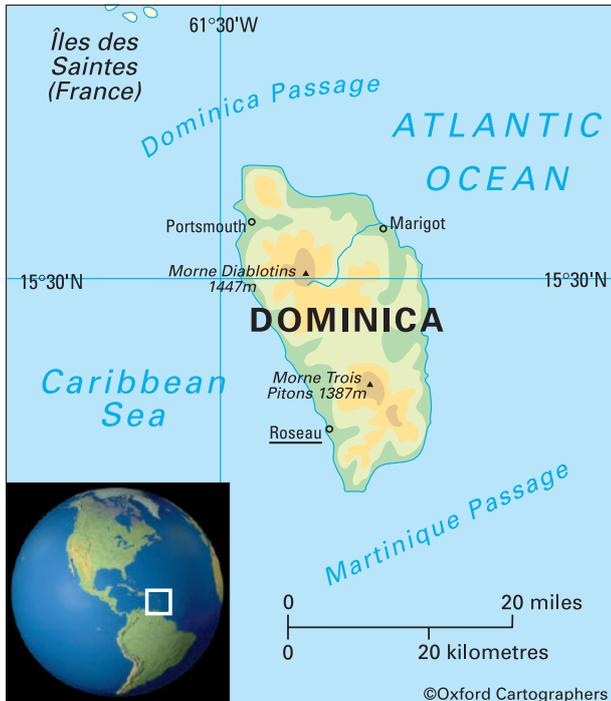
Ministry of Health: www.moh.gov.cy

Commonwealth Health Online:

www.commonwealthhealth.org/health/europe/cyprus



Dominica



KEY FACTS

Joined Commonwealth:	1978
Population:	72,000 (2013)
GDP p.c. growth:	1.8% p.a. 1990–2013
GNI p.c.:	US\$6,760 (2013)
UN HDI 2014:	World ranking 93
Life expectancy:	76 years (est. 2013)
Under-five mortality rate (per 1,000 live births):	11 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	4% of GDP (2012)

General information

The Commonwealth of Dominica is one of the Windward Islands in the Eastern Caribbean, lying between Guadeloupe to the north and Martinique to the south.

Climate: The climate is subtropical and hot, but cooled by sea breezes, with a rainy season in June–October, when hurricanes may occur. Rainfall is heavy, especially in mountain areas.

Environment: The most significant environmental issues are shortage of drinking water; deforestation; soil erosion; and pollution of the coastal zone by chemicals used in farming and factories, and untreated sewage.

Population: 72,000 (2013); 69 per cent of people live in urban areas. The population growth stood at 0.1 per cent between the years of 1990 and 2012, decreased over this time mainly to the emigration of young people. In 2012 the birth rate was 16 per 1,000 people (est 26 in 1970) and life expectancy was estimated at 76 years.

The population is mostly of African and mixed African/European descent, with European, Syrian and Carib (2.9 per cent in 2001 census) minorities. There is a Carib reserve on part of the east of the island, referred to as the Carib Territory.

Economy: Dominica is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Dominica was ten deaths per 1,000 live births in 2013, with an under-five mortality rate of 12 deaths per 1,000 live births in 2013. Although there has been a consistent and encouraging decline in under-five mortality, which has decreased by a third since 1990, it is not yet in line with the country's target of six deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the most prominent known causes of death for children below the age of five years were birth asphyxia (48 per cent), neonatal sepsis (14 per cent) and prematurity (ten per cent). Other contributory causes included neonatal pneumonia (three per cent) and congenital anomalies (seven per cent).

Burden of disease: Non-communicable diseases (NCDs) in Dominica accounted for an estimated 85 per cent of all mortality in 2008. In 2008 the most prevalent NCDs were cardiovascular diseases (36 per cent). Cancer, non-communicable variants of respiratory diseases and diabetes contributed 21 per cent, five per cent and nine per cent to total mortality, respectively (2008).

Communicable diseases along with maternal, perinatal and nutritional conditions in Dominica accounted for an estimated 11 per cent of all mortality in 2008. A government paper on HIV/AIDS reported a cumulative 410 HIV cases (150 of which resulted in death) in the period 1987–2013. Dominica is a non-endemic country for malaria. Estimated incidences of tuberculosis (TB) have halved in the period 1990–2012, while estimated mortality (when mortality data excludes cases comorbid with HIV) almost decreased slightly during this time.

The most commonly diagnosed mental illnesses in Dominica are schizophrenia and depression.

Health systems: In 2012 government expenditure on health was four per cent of GDP, equivalent to US\$282 per capita. In the most recent survey, conducted between 1997 and 2009, there were 50 doctors, and 417 nurses and midwives per 100,000 people. Additionally, in the period 2007–12 all births were attended by qualified health staff and, in 2013, 93 per cent of one-year-olds

were immunised with one dose of measles. In 2011, 96 per cent of the country's population was using an improved drinking water source and in 2005, 81 per cent had access to adequate sanitation facilities.

Health services within the country are made up of a network of 52 health centres and two district hospitals. The Princess Margaret Hospital is the national referral hospital and provides curative, rehabilitative and other complex medical services. A recent upgrade has reduced the number of people having to seek treatment abroad. There is a smaller hospital at Portsmouth and cottage hospitals at Marigot and Grand Bay. The Ministry of Health is responsible for the provision and financing of health care services.

The Dominican government is an active participant in the Eastern Caribbean Drug Service, which is a regional pooled procurement scheme for importing pharmaceuticals and medical supplies. This enables the country to maximise the value of health care services to its citizens through the advantage of collective bulk buying along with neighbouring countries. The pharmaceuticals industry in Dominica remains largely unregulated, except with regard to dangerous drugs.

The most recent act relating to mental health in Dominica is the Mental Health Act 1987. There are 19.5 mental health outpatient facilities per 100,000 people (2011).

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

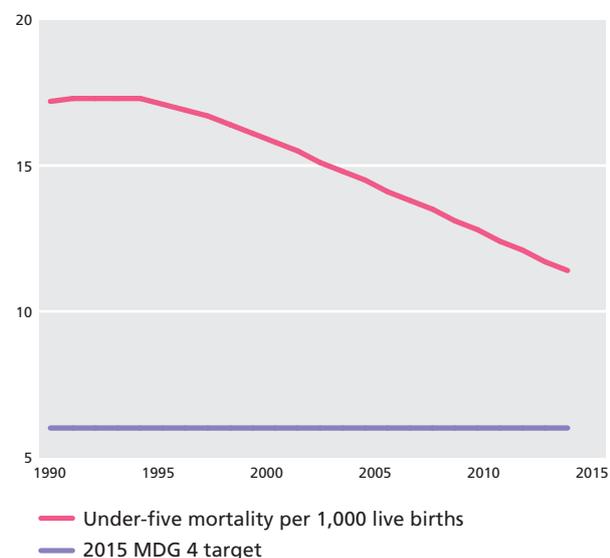
To achieve MDG 4, Dominica should have reduced under-five deaths per 1,000 live births to six and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 11 deaths per 1,000 live births and measles immunisation at 93 per cent. While the measles immunisation target is relatively close to being achieved, it is unlikely that the under-five mortality target will be met when the 2015 data is analysed.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. Part of this goal stipulates that 100 per cent of births must be attended by a skilled health professional, a target that Dominica met in 2012.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. There has been an overall reduction in estimated TB incidence and estimated mortality (when mortality data excludes cases comorbid with HIV) in the country. Further progress would have had to have been made if Dominica is to achieve this goal. There is insufficient information from international agencies to confirm the country's progress on this goal with regard to HIV/AIDS.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

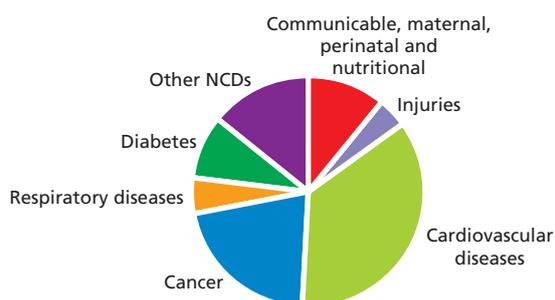
Under-five mortality



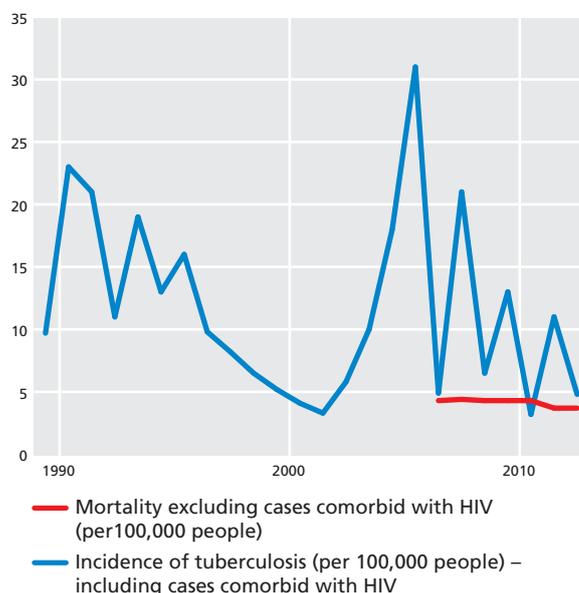
Universal health coverage

Only a third of health care in Dominica (28 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 5.9 per cent of GDP (2012), of which 72 per cent (US\$282 per capita) was covered by the government.

Mortality by cause of death (% of all deaths), 2008



Tuberculosis: Incidence and mortality



Health care is overseen by the Ministry of Health, the mission of which is to promote the well-being of all citizens of Dominica through the provision of preventive, curative and rehabilitative health care, compatible with acceptable standards of human dignity at a cost that is affordable and sustainable. The health system in the country is made up of a mix of public and private health providers, but is dominated by public provision of services. Primary care services in the country are of a high quality, however, secondary care is limited and tertiary care is unavailable on the islands and requires travelling to off-island facilities – as a result, such care is only available to some income groups. USAID have been working with Dominica to assess the burden of disease in the country as the absence of tertiary care may pose a significant risk to the health of citizens of Dominica.

Dominica was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1993 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Overall, public pension spending is equivalent to four per cent of the country's total economic output (2006). Care of the elderly in Dominica is overseen by the Ministry of Social Services, Family and Gender Affairs, and is defined as 'the fulfilment of the special needs and requirements that are unique to senior citizens'. The Ministry is responsible for providing services such as assisted living, adult day care, home-based care and institutional care.

In 2015 there were six government-administered residential homes providing care for the elderly: the Dominica Infirmary, Grotto Home, Portsmouth Home for the Aged, Mount Carmel Retirement Home, Clara's Home and Mahaut Senior Citizen home. Additionally, the government funds the Yes We Care programme, which provides home-based care for the elderly. The elderly care body HelpAge International is also present in Dominica through the country-specific programme REACH, a non-profit organisation that is dedicated to relieving the suffering of the elderly.

Further information

Ministry of Health: www.dominica.gov.dm

Commonwealth Health Online:
www.commonwealthhealth.org/health/americas/dominica



Fiji



KEY FACTS

Joined Commonwealth:	1970 (rejoined in 1997 after ten-year lapse)
Population:	881,000 (2013)
GDP p.c. growth:	1.2% p.a. 1990–2013
GNI p.c.:	US\$4,430 (2013)
UN HDI 2014:	World ranking 88
Life expectancy:	70 years (2013)
Under-five mortality rate (per 1,000 live births):	24 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	2.6% of GDP (2012)

General information

The Republic of Fiji lies 1,850 km north of Auckland, New Zealand, and 2,800 km north-east of Sydney, Australia. It consists of about 300 islands (100 inhabited) and 540 islets, spread over 3 million sq

km. It is surrounded by the island groups of (clockwise from north) Tuvalu, Wallis and Futuna, Tonga, New Caledonia, Vanuatu and Solomon Islands. The largest islands are Viti Levu ('Great Fiji'), Vanua Levu, Taveuni and Kadavu.

Climate: The climate is tropical and oceanic. South-east trade winds prevail; day temperatures range from 20°C to 29°C and humidity is high. The rainy season is November–March throughout the country, though there is also rain from June to September.

On average, the country is affected by a hurricane every other year, for example Cyclone Ami in January 2003.

Environment: The most significant environmental issues are deforestation and soil erosion.

Population: 881,000 (2013); 53 per cent of people live in urban areas. The population growth rate stood at 0.8 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 20 per 1,000 people (34 in 1970) and life expectancy was 70 years (60 in 1970).

More than 50 per cent of the people are ethnic Fijians, who are of mixed Melanesian-Polynesian origin, and most of the rest are of Indian origin. There are small populations of Europeans, Banabans, Tuvaluans and Chinese.

Economy: Fiji is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Fiji was 20 deaths per 1,000 live births in 2013, with an under-five mortality rate of 24 deaths per 1,000 live births in 2012. There has been an overall reduction in under-five mortality from 31 deaths per 1,000 live births in 1990 to 24 deaths per 1,000 live births in 2013. Although this decrease is encouraging, the under-five mortality rate is not yet in line with the country's target of ten deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4), and has seen little change since 2005. In 2012 the three most prominent known causes of death for children below the age of five years were congenital anomalies (20 per cent), prematurity (19 per cent) and injuries (12 per cent). Other contributory causes were acute respiratory infections (13 per cent), neonatal sepsis (five per cent) and diarrhoea (four per cent). In the 2013 Fiji had an adjusted maternal mortality ratio of 59 deaths per 100,000 live births (adjusted to 26 deaths per 100,000 by UN agencies/World Bank in 2010).

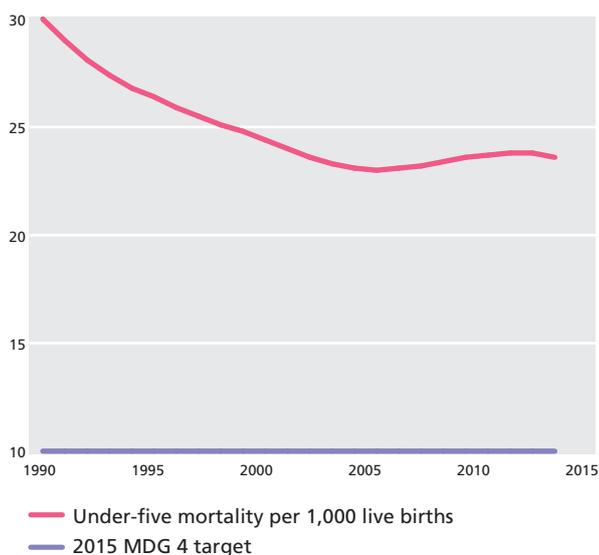
Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 80 per cent majority of all mortality in Fiji in 2012. In 2012 the most prevalent NCDs were cardiovascular diseases (35 per cent). Diabetes, cancer and non-communicable variants of respiratory diseases contributed 16 per cent, 11 per cent and five per cent to total mortality, respectively (2012). Injuries accounted for eight per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 12 per cent of all mortality in Fiji in 2012. In 2012 Fiji's HIV prevalence stood at 0.1 per cent; the figure has remained roughly at this level in the period 1990–2012. The country is free from malaria. Estimated incidence of tuberculosis (TB) fell by roughly a quarter in the period 1990–2013, but estimated mortality (when mortality data excludes cases comorbid with HIV) has increased significantly in that time.

There is a lack of information concerning the frequency of common diagnoses of mental illness in Fiji.

Health systems: In 2012 government expenditure on health was 2.6 per cent of GDP, equivalent to US\$115 per capita. In the most recent survey, conducted between 1997 and 2010, there were 43 doctors, and 224 nurses and midwives per 100,000 people. Additionally, in the period 2007–10, 100 per cent of births were attended by qualified health staff and, in 2013, 94 per cent of one-year-olds were immunised with one dose of measles. In 2011, 96 per cent of the population had access to an improved water source

Under-five mortality



Life expectancy



and 87 per cent were using adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reported that Fiji has nine pharmaceutical personnel per 100,000 people.

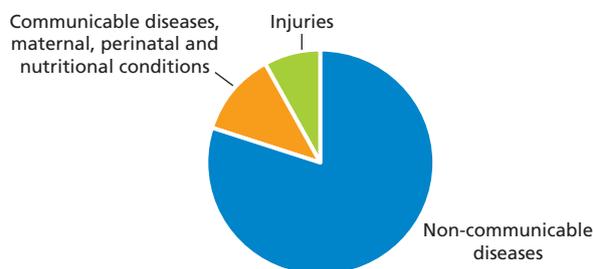
The Fijian government provides free health care to all citizens through its three area hospitals, three divisional hospitals, 76 health centres, 900 village clinics, 19 subdivisional health centres, 124 nursing stations and three specialty hospitals, including a psychiatric hospital. There is also a privately run hospital in Suva. Fiji has one pharmaceutical manufacturer, which runs a research and development facility for anticancer, steroid and retinoid medicines in the city of Nadi. All other medicines are imported and sold via one of Fiji's pharmaceutical wholesalers. The Fiji Intellectual Property Office upholds patents.

The most recent act relating to mental health in Fiji is the Mental Treatment Act 1978. A new Mental Health Decree was endorsed by the Cabinet in 2010.

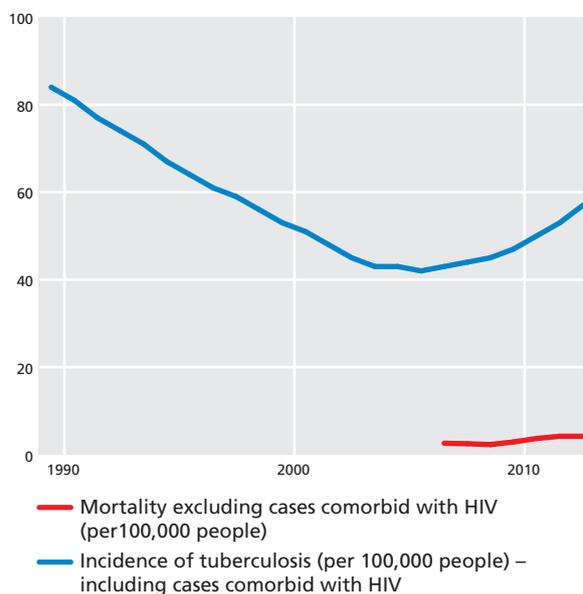
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Fiji to achieve its targets for the reduction of child mortality, which form MDG 4, Fiji would have to have reduced under-five deaths per 1,000 live births to ten and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 24 deaths per 1,000 live births

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



and measles immunisation at 94 per cent. While the measles target is coming close to being achieved, Fiji is unlikely to have achieved the under-five mortality element of this goal when the 2015 data is analysed.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. Maternal mortality in Fiji, therefore, should fall to eight cases per 100,000 live births. In 2013 Fiji had an adjusted maternal mortality ratio of 59 deaths per 100,000 live births, having increased significantly from 23 deaths per 100,000 live births in 2011. The maternal mortality target is very unlikely to be met. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. By 2012 this target had been met.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Fiji's prevalence of HIV is low and remained consistent at 0.1 per cent in the period 1990–2012. Progress towards MDG 6 has been promising, with an absence of malaria and decline in estimated incidence of TB.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Only about a third of health care in Fiji (35 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted four per cent of GDP in 2012, of which 65 per cent (US\$115 per capita) was covered by the government.

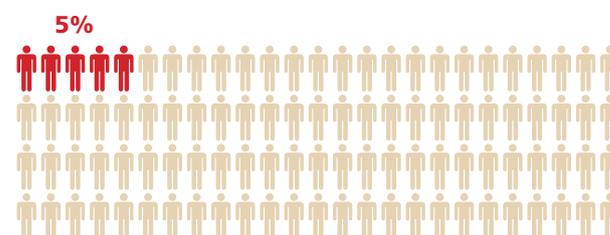
The number of health centres, clinics and nursing stations across the islands means that basic medical treatment is accessible for most people. However, patients may need to travel to the larger urban centres for more comprehensive treatment. The Ministry of Health's Strategic Plan for 2011–15 has three strategic goals: providing adequate primary and preventive services; providing accessible clinical and rehabilitation services; and strengthening health systems. The WHO Country Co-operation Strategy for Fiji adds to this the need to develop and implement plans to prevent communicable diseases, such as STIs, HIV and TB, and meet targets for vaccination programmes. Another priority identified in the strategy is strengthening maternal, adolescent and child health programmes.

Fiji's Bill of Rights includes the right to access to health care, sanitation, food security and safe water.

Fiji is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to the ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Approximately 48,000 people in Fiji are over the age of 65 – five per cent of the population (2013). At the age of 60 a person living in Fiji can be expected to live for an additional 17 years on average. The social pension scheme was introduced in 2013. Monthly pension credits are paid by the state at a rate of US\$16 per person (2007–12) on a pensions-tested basis. Overall, public pension spending is equivalent to 0.5 per cent of the country's total economic output (2005).

Population over 65



Fijian culture is particularly geared towards care of the elderly, with in-house and in-community care provided by family, extended family and neighbours being the norm for older people. There are also three government-owned senior citizens homes and three private ones.

Fiji has a National Policy on Ageing (2011–15) and a National Council for Older Persons. The Bill of Rights includes the right to housing and social security schemes. Elderly people get concessions on bus fares.

Further information

Ministry of Health: www.health.gov.fj

Commonwealth Health Online:
www.commonwealthhealth.org/health/pacific/fiji



Ghana



Western. After Greater Accra, Ashanti is the most populated region; Upper West, the least.

Climate: Tropical; warm and fairly dry in northern areas, hot and humid on the coastal belt. Temperatures usually range between 21°C and 32°C. Annual rainfall varies from 700 mm to 2,150 mm.

In 2007 large parts of West Africa were the subject of severe flooding. Ghana was the worst hit with more than 300,000 of its people made homeless.

Environment: The most significant environmental issues are deforestation, overgrazing and soil erosion; drought in the north; poaching and habitat destruction threatening wildlife populations; and water pollution and inadequate supplies of drinking water.

Population: 25,905,000 (2013); 53 per cent of people live in urban areas and 18 per cent in urban agglomerations of more than a million people. The population growth rate stood at 2.5 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 31 per 1,000 people (47 in 1970) and life expectancy was 61 years (49 in 1970).

The population is made up predominantly of African groups: Akan (45 per cent in 2000 census), Mole-Dagbani (15 per cent), Ewe (12 per cent), Ga-Adangbe (seven per cent), Guan (four per cent), Gurma (four per cent) and Grusi (three per cent). There are very small minorities of other races.

Economy: Ghana is classified as a lower-middle-income economy by the World Bank.

KEY FACTS

Joined Commonwealth:	1957
Population:	25,905,000 (2013)
GDP p.c. growth:	3.2% p.a. 1990–2013
GNI p.c.:	US\$1,760 (2013)
UN HDI 2014:	World ranking 138
Life expectancy:	61 years (2013)
Under-five mortality rate (per 1,000 live births):	78 (2013)
Largest contribution to mortality:	Infectious and parasitic diseases
Government health expenditure:	3% of GDP (2012)

General information

The Republic of Ghana, formerly the Gold Coast, is a West African country lying on the Gulf of Guinea. It is surrounded (clockwise, from the west) by Côte d'Ivoire, Burkina Faso and Togo.

Ghana has ten regions: Greater Accra, Ashanti, Brong Ahafo, Central, Eastern, Northern, Upper East, Upper West, Volta and

Health

Child and maternal health: The rate of infant mortality in Ghana was 52 deaths per 1,000 live births in 2013, with an under-five mortality rate of 78 deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1990. Despite this decline, the under-five mortality rate has not yet reached the country's target of 43 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2012 the three most prominent causes of death for children below the age of five years were malaria (19 per cent), acute respiratory infections (13 per cent) and prematurity (14 per cent). Other significant contributory causes were intrapartum-related complications (13 per cent), neonatal sepsis (eight per cent), congenital anomalies (seven per cent) and diarrhoea (seven per cent). In 2013 Ghana had an adjusted maternal mortality ratio of 380 deaths per 100,000 live births.

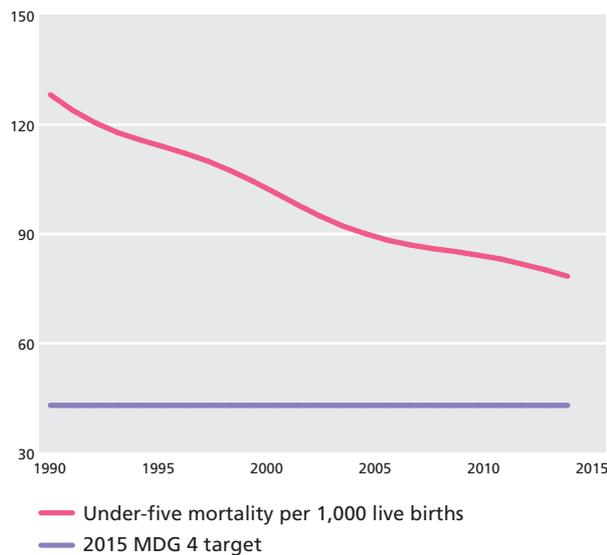
Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions in Ghana accounted for an estimated 51 per cent of all mortality in 2012. The prevalence of HIV in Ghana, as a percentage of population aged 15–49 years, stood at 1.3 per cent in 2012. Over the period 1990–2012 there was an overall rise in HIV levels, which peaked in the early 2000s.

Since this time rates have been consistently decreasing. Confirmed cases of malaria have increased dramatically in recent years from just over one million cases in 2011 to 3.7 million in 2012. However, there has been a reduction in confirmed deaths from malaria between 2006 and 2012. Incidence of tuberculosis (TB) reduced significantly in the period 1990–2013 and estimated mortality (when mortality data excludes cases comorbid with HIV) fell by more than two-thirds in this time.

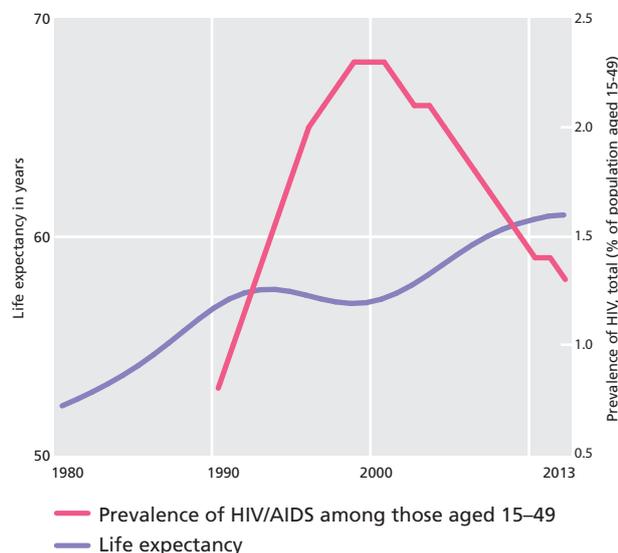
Non-communicable diseases (NCDs) accounted for an estimated 41 per cent of all mortality in Ghana in 2012. In 2012 the most prevalent NCDs were cardiovascular diseases (18 per cent). Cancer, non-communicable variants of respiratory diseases and diabetes contributed five per cent, two per cent and two per cent to total mortality, respectively (2012). Injuries accounted for eight per cent of deaths in 2012.

The most commonly diagnosed mental illnesses in Ghana are depression and mood disorders. Also present, although less

Under-five mortality



Life expectancy and HIV/AIDS



Medical Centre

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common, are mental health conditions relating to psychoactive substance misuse.

Health systems: In 2012 government expenditure on health was three per cent of GDP, equivalent to US\$47 per capita. In the most recent survey, conducted between 1997 and 2010, there were ten doctors, and 93 nurses and midwives per 100,000 people. Additionally, in 2011, 67 per cent of births were attended by qualified health staff and in 2013, 89 per cent of one-year-olds were immunised with one dose of measles. In 2012, 87 per cent of people were using an improved drinking water source and 14 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Ghana has seven pharmaceutical personnel per 100,000 people.

The Ghana Health Service (GHS) was established in 1996. It is an autonomous executive agency responsible for the implementation of national health policies under the control of the Minister for Health through its governing body, the Ghana Health Service Council.

Health service delivery in Ghana is split into three levels: primary, secondary and tertiary, with a corresponding three levels of management. Primary care is provided through health centres and clinics, or health posts in rural areas. There are around 200 hospitals – major ones include the Korle Bu Teaching Hospital, the Komfo Anokye Teaching Hospital, Sunyani Regional Hospital and

Bolgatanga Regional Hospital. However, medical facilities are often limited outside of the major centres.

Non-government health providers, including not-for-profit institutions like the Christian Health Association of Ghana, quasi-government health facilities and private institutions, provide more than 40 per cent of medical care in Ghana. UN agencies active in health in Ghana are UNAIDS, Unicef, the World Health Organization, UNFPA and the World Food Programme. The World Bank and African Development Bank also work in Ghana. Other donors include the EU, Germany, Israel, Japan, the Netherlands, Korea, UK and the USA.

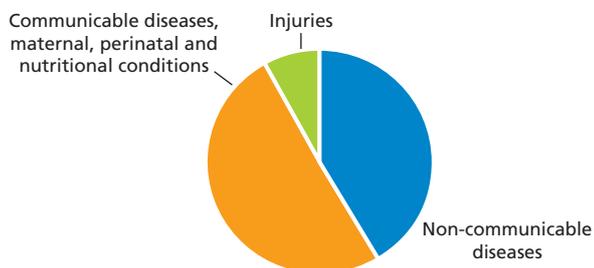
The GHS is known for meticulous record keeping, with every childhood immunisation documented in the mother’s green booklet, which tracks the health care of each child, and recorded in registry books.

The pharmaceutical industry consists of importers, manufacturers, wholesalers and retailers. Locally produced products include anti-infectives, vitamins, painkillers, antacids and antibiotics. Local manufacturing meets around a third of demand local and the rest is imported. The sector is regulated by the Food and Drugs Board.

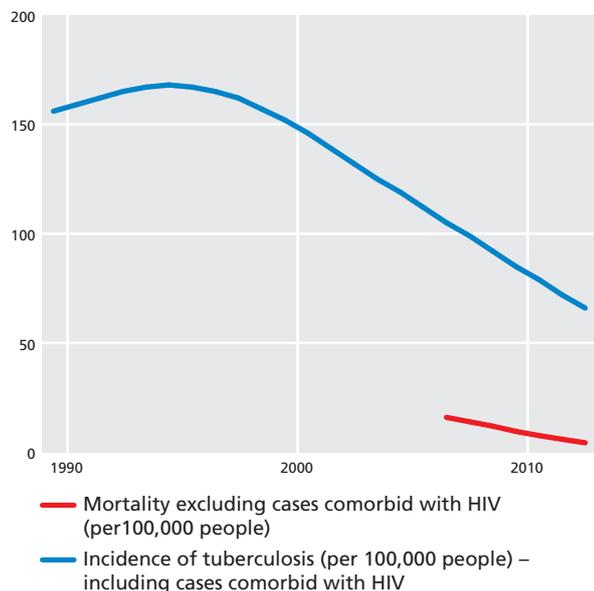
The most recent act relating to mental health in Ghana is the 2012 Mental Health Act.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



For Ghana to achieve its targets for the reduction of child mortality, which form MDG 4, it would need to have reduced under-five deaths per 1,000 live births to 43 and increased measles immunisation to 100 per cent when analysis of the 2015 data is complete. In 2013 under-five mortality stood at 78 deaths per 1,000 live births and measles immunisation at 89 per cent, suggesting that these goals are unlikely to be met.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. Maternal mortality, therefore, should have fallen to 145 cases per 100,000 live births in Ghana. In 2013 Ghana had an adjusted maternal mortality ratio of 380 deaths per 100,000 live births. As Ghana’s maternal mortality rate is more than twice the given target, it is unlikely to achieve MDG 5 when the 2015 data is analysed. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2011 this figure stood at 67 per cent, so this target is also unlikely to be met.

The government declared maternal mortality a national emergency in 2008, developing the MDG Acceleration Framework – Ghana Action Plan – with the aim of improving maternal health with the level of urgency required.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. While Ghana’s HIV prevalence for the 15–49 age group has fallen since 2002, the country is struggling to get back to the HIV prevalence levels of 1990. Similarly, the mortality arising as a result of malaria is still not showing a significant and sustained decline. But the general decline in incidence of and mortality (when mortality data excludes cases comorbid with HIV) from TB is encouraging.

The Ghana AIDS Commission, which is largely supported by the Global Fund to Fight AIDS, Tuberculosis and Malaria as well as international donor agencies, has stated that the Eurozone crisis has badly affected its funding.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Some 43 per cent of health care in Ghana was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 5.2 per cent of GDP in 2012, of which 57 per cent (US\$47 per capita) was covered by the government.

The mandate of the GHS is to provide a comprehensive and accessible health service, with special emphasis on primary health care at regional, district and sub-district levels.

In 2005 the National Health Insurance Scheme (NHIS) was introduced nationally with the aim of ensuring access to free basic health care services to all residents. People pay a levy of 2.5 per cent on certain goods and services, and a 2.5 per cent monthly payroll deduction. Those working in the informal economy can also contribute via a slightly different route. The poorest people, pregnant women and children are exempt from premium payment. The NHIS funds health services, including outpatient consultations, essential drugs, inpatient care and hospital beds, maternity care (including caesarean delivery) and eye, dental and emergency care. However, some services are excluded, often due to cost. Exclusions include cosmetic surgery, some drugs (including antiretroviral treatment), assisted reproduction and organ transplants.

The government has also been implementing strategies to promote universal health care based on the Ouagadougou Declaration for Primary Health Care and Health Systems. A close-to-client service delivery model has been adopted through Community Health Planning and Services since 2000. Within this model, community health nurses are placed in communities to offer public health, outreach and some clinical services, functioning as the first point of contact and referral. The One Million Community Health Workers Initiative was also established to tackle the shortage of health care professionals. Two current campaigns include a package of care aimed at pregnant women and newborns, and the National TB Control Programme.

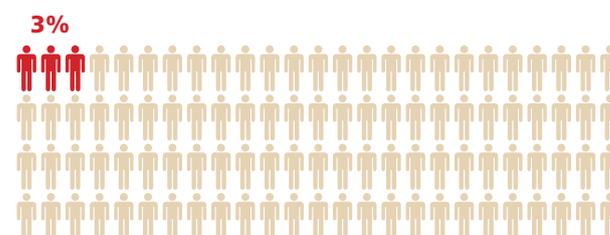
However, despite the efforts of the GHS, people in rural areas can often be some distance from the nearest health post, making it difficult for them to obtain even basic health care. In rural areas, consequently, there is still a big market for locally available traditional medicine.

The WHO Country Co-operation Strategic Agenda 2008–13 identifies a need to intensify efforts to prevent and control non-communicable diseases, as well as strengthening the health system, with a focus on primary health care.

Ghana has signed and ratified the International Covenant on Economic, Social and Cultural Rights, which includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 900,000 people in Ghana are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person living in Ghana can be expected to live for an additional 15 years, on average (2013). Overall, public pension spending is equivalent to 1.3 per cent of the country's total economic output (2010).

Population over 65



In 2010 the government approved a national policy on ageing. Initiatives include offering hearing aids and glasses to those who need them and exempting the over-70s from contributing to NHIS, while ensuring that free medical care is still available to them. The GHS is also working to improve its offering to the elderly, encouraging attendance at clinics and giving staff additional training in geriatric care. Undiagnosed and untreated hypertension among older people is another priority that has been identified.

Mercy Mission operates a nursing home in Accra. There are also private home help services for the elderly people who can afford them, as well as some charities providing assistance. As in most African countries, many elderly people are cared for by members of extended family.

Further information

Ministry of Health: www.moh-ghana.org

Commonwealth Health Online:
www.commonwealthhealth.org/health/africa/ghana



Grenada



KEY FACTS

Joined Commonwealth:	1974
Population:	106,000 (2013)
GDP p.c. growth:	1.8% p.a. 1990–2013
GNI p.c.:	US\$7,460 (2013)
UN HDI 2014:	World ranking 79
Life expectancy:	73 years (2013)
Under-five mortality rate (per 1,000 live births):	12 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	3% of GDP (2012)

General information

Grenada consists of the island of Grenada, the most southerly of the Windwards in the Eastern Caribbean, and some of the southern Grenadine islands, the largest of which is Carriacou (33 sq km). Its Caribbean neighbours include St Vincent and the Grenadines (which includes the more northern Grenadines), and Trinidad and Tobago.

Climate: The tropical climate is especially pleasant in the dry season (February–May) when the trade winds prevail. The rainy season runs June–December, when hurricanes may occur and in some years – for example, Hurricane Ivan in 2004 – cause extensive damage. The temperature and rainfall vary with altitude, with much heavier rainfall in the mountains.

Population: 106,000 (2013); 36 per cent of people live in urban areas. The population growth rate stood at 0.4 per cent p.a. between the years of 1990 and 2013, depressed over this period by emigration. In 2013 the birth rate was 19 per 1,000 people (28 in 1970) and life expectancy 73 years (64 in 1970).

Most of the population is of African (82 per cent in 1991 census) or mixed African/European descent (13 per cent). The remainder is made up of small European and Asian groups.

Economy: Grenada is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Grenada was 11 deaths per 1,000 live births in 2013, with an under-five mortality rate of 12 deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1990. Despite this, the under-five mortality rate has not yet reached the country's target of seven deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent known causes of death for children below the age of five years were congenital anomalies (17 per cent), prematurity (15 per cent) and intrapartum-related complications (15 per cent). Other contributory causes were neonatal sepsis (seven per cent), injuries (three per cent) and acute respiratory infections (one per cent). The adjusted maternal mortality ratio for Grenada stood at 23 per 100,000 live births in 2013.

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 81 per cent of all mortality in Grenada in 2008. In 2008 the most prevalent NCDs were cardiovascular diseases (34 per cent). Cancer, diabetes and non-communicable variants of respiratory diseases contributed 21 per cent, nine per cent and three per cent to total mortality, respectively.

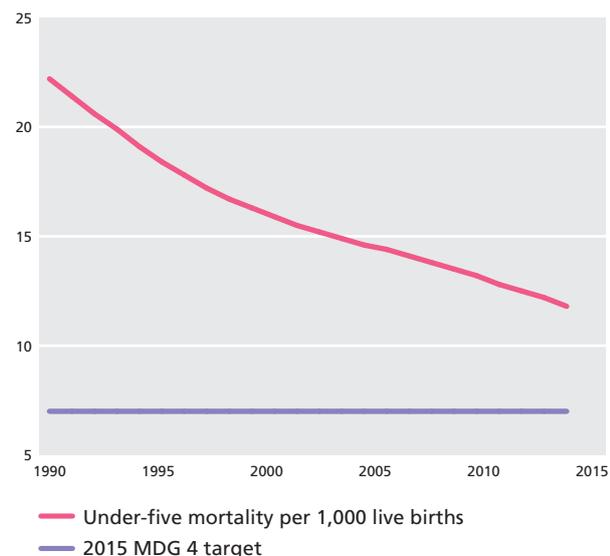
Communicable diseases along with maternal, perinatal and nutritional conditions in Grenada accounted for an estimated 13 per cent of all mortality in 2008. A government paper on HIV/AIDS reported a cumulative 517 HIV cases (237 of which resulted in deaths) in the period 1984–2013. Estimated incidence of tuberculosis (TB) fell slightly overall during the period 1990–2013 and overall estimated mortality (when mortality data excludes cases comorbid with HIV) also fell slightly overall during this time.

Non-communicable diseases, such as diabetes, high blood pressure and respiratory diseases, are beginning to pose a major challenge to health efforts in Grenada. The rise of such diseases is likely exacerbated by poverty and poor diet in poor communities. In the post-2015 development agenda, the importance of lifestyle changes to combat the rise of such diseases is likely to feature high on Grenada's health development plans.

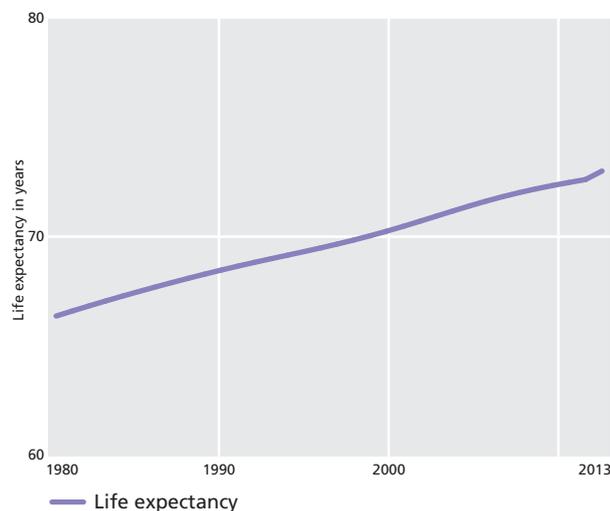
The most commonly diagnosed mental illness in Grenada is schizophrenia.

Health systems: In 2012 government expenditure on health was three per cent of GDP, equivalent to US\$479 per capita. In the most recent survey, conducted between 1997 and 2009, there were 98 doctors, and 398 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 100 per cent of births were attended by qualified health staff and in 2013, 94 per cent of one-year-olds were immunised with one dose of measles. In 2012, 97 per cent of the country's population had access to an improved water source and 98 per cent had access to adequate sanitation facilities.

Under-five mortality



Life expectancy

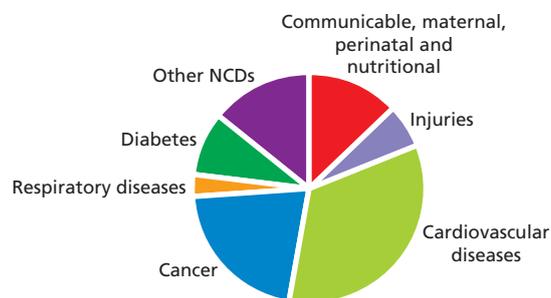


Grenada reportedly has one of the best health care systems in the Caribbean region (2012). In order to improve health and minimise the increasing costs of health care, Grenada has placed a lot of emphasis on primary health care and preventative measures. There are around seven medical centres and clinics in the country. St George's General Hospital is the main facility and there is a small private hospital in the St Paul district that has a 24-hour emergency room and can arrange air ambulance evacuation. A new hospital, which is expected to be completed in 2015, is currently being built in Grenada. It will offer new state-of-the-art facilities and is intended to cater for medical tourists as well as residents.

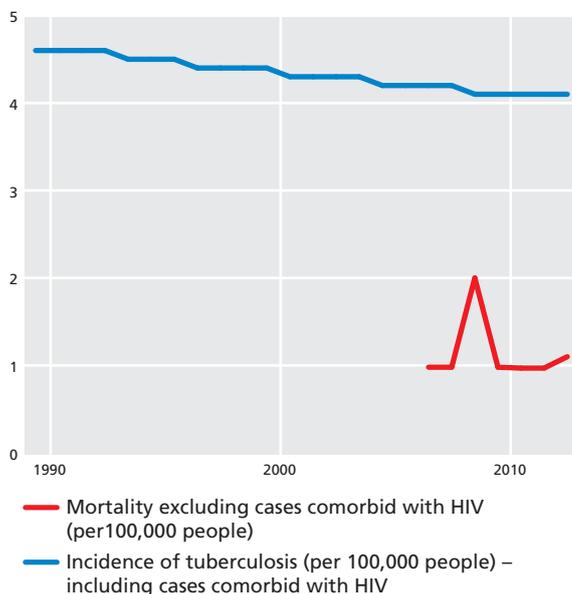
The new hospital will replace St George's. There are also two small rural hospitals: the Princess Alice Hospital and the Princess Royal Hospital. At the moment, all serious medical problems require air evacuation to a country with better medical facilities, but this situation may improve when the new hospital opens. The nearest decompression chambers are in Trinidad and Barbados.

There are more than 20 pharmaceutical companies in Grenada, although the country acquires most of its pharmaceuticals through the sub-regional programme managed by the Eastern Caribbean Drug Service. This ensures that regional standards are reviewed annually and revised periodically, and that essential drugs are available on a timely basis. Pharmacies are generally well supplied, although not all prescription medications are always available.

Mortality by cause of death (% of all deaths), 2008



Tuberculosis: Incidence and mortality



The most recent act relating to mental health in Grenada is the Mental Health Act 2008.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Grenada to achieve its targets for the reduction of child mortality, which forms MDG 4, it would need to have reduced under-five deaths per 1,000 live births to seven, and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 12 deaths per 1,000 live births and measles immunisation at 94 per cent, so Grenada is unlikely to meet this goal when the 2015 data is analysed.

The 2013 MDG progress report for Grenada provided suggestions from civil society organisations on potential methods of improving health care in the country and achieving those goals outlined in the millennium development framework. For MDG 4, while there has been an improvement in child mortality rates, it is suggested that further focus needs to be applied to early childhood care and development.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Grenada, therefore, maternal mortality should have fallen to nine per 100,000 live births. This figure stood at 23 in 2013, indicating that the target is unlikely to be met when the 2015 data is analysed. Part of the goal stipulates that 100 per cent of births must be attended by a skilled health professional – a goal that has already been met.

The 2013 MDG progress report for Grenada suggested that further improvements in maternal mortality could be made if efforts were focused on educating Grenadians about contraceptives in order to combat widespread misunderstandings and stigmas concerning their use.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. The contribution of major communicable diseases to total mortality in Grenada is low. Malaria has already been eradicated in the country and the incidence of and mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis are also on the decline. Grenada has made considerable progress towards achieving MDG 6, but there is insufficient information from international agencies to confirm the country's progress on this goal with regard to HIV/AIDS.

The 2013 MDG progress report for Grenada highlighted the emergence of new initiatives to reduce mother-to-child transmission of HIV infections. There are inconsistencies in the supply of medication for HIV/AIDS.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

More than half of health care in Grenada (53 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 6.2 per cent of GDP in 2012, of which 47 per cent (US\$479 per capita) was covered by the government.

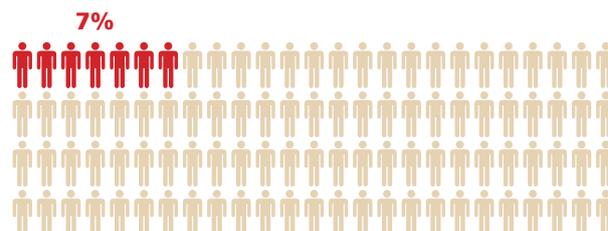
A 2000 report by the World Health Organization stated that Grenada had one of the best health care systems in the Caribbean. The health care system is organised and run by the Ministry of Health (MOH), which in recent years has focused on providing citizens with excellent primary care. As a result, primary health care services are largely free of charge and available at public health centres. A small fee is charged for medicine, lab work or other diagnostics, but fees are waived for the elderly, children and the poor. While there is no national health insurance, all Grenadians are required to participate in a social security programme, the National Insurance Scheme, which covers citizens against work-related injuries.

Grenada was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1991 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 7,000 people in Grenada are over the age of 65 – seven per cent of the total population (2013). At the age of 60 a person living in Grenada can be expected to live for an additional 18 years, on average (2013). Overall, public pension spending is equivalent to two per cent of the country's total economic output (2006).

The elderly in Grenada are given free primary health care as standard. Medicines, lab work and other diagnostics are also provided free of charge for the elderly. The government runs the Richmond Home for the Elderly, which offers free residential facilities to senior citizens. There are also several privately run

Population over 65



services for the care of the elderly, including the Grenada Connections Care@Home Agency, which caters to the elderly in their own homes, offering services such as bathing, meal preparation, companionship, doctor service and help with household chores, for example, laundry and shopping.

Grenada is a hotspot for expatriate retirees. Each year, high numbers of elderly people, mainly from the UK and Europe, relocate to the island in search of relaxing living conditions and warmer climates in which to spend their twilight years.

Further information

Ministry of Health and Social Security:
www.gov.gd/ministries/health.html

Commonwealth Health Online:
www.commonwealthhealth.org/health/americas/grenada



Guyana



KEY FACTS

Joined Commonwealth:	1966
Population:	800,000 (2013)
GDP p.c. growth:	3.0% p.a. 1990–2013
GNI p.c.:	US\$3,750 (2013)
UN HDI 2014:	World ranking 121
Life expectancy:	66 years (2013)
Under-five mortality rate (per 1,000 live births):	37 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	4.3% of GDP (2012)

General information

The Co-operative Republic of Guyana lies in the north-east of South America, north of the equator. It is bordered by Suriname, Brazil and Venezuela; in the north and east it extends to the North Atlantic Ocean. The country comprises ten regions.

Climate: Guyana has a warm, tropical climate with high rainfall and humidity. The rainy seasons are November–January and May–July, with an average rainfall of 2,350 mm p.a. in the coastal

region. Inland rainfall averages 1,520 mm p.a. North-east trade winds moderate coastal temperatures.

Environment: The most significant environmental issues are water pollution by sewage, and agricultural and industrial chemicals; and deforestation.

Population: 800,000 (2013); population distribution is very uneven, with a high concentration of people along the coastal strip and many inland areas virtually uninhabited. Around a quarter (28 per cent) of people live in urban areas. The population growth rate stood at 0.4 per cent p.a. between the years of 1990 and 2013, depressed over this period by emigration. In 2013 the birth rate was 20 per 1,000 people (38 in 1970) and life expectancy was 66 years (60 in 1970).

The ethnic origins of the people are: 44 per cent Indian (resident mostly in agricultural areas); 30 per cent African (mostly in towns); 17 per cent of mixed descent; and nine per cent Amerindian (mainly in the west and south, or on reserves; 2002 census).

Economy: Guyana is classified as a lower-middle-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Guyana was 30 deaths per 1,000 live births in 2013, with an under-five mortality rate of 37 deaths per 1,000 live births in 2012. Under-five mortality in Guyana has declined consistently since 1990 and has almost halved since 1990. While this decrease is encouraging, the under-five mortality rate has not yet reached the country's target of 20 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the most prominent known causes of death for children below the age of five years were prematurity (19 per cent), intrapartum-related complications (12 per cent), congenital anomalies (nine per cent), malaria (nine per cent) and neonatal sepsis (six per cent). Other contributory causes were acute respiratory infections (five per cent), diarrhoea (five per cent) and HIV (one per cent). In 2013 Guyana had an adjusted maternal mortality ratio of 250 deaths per 100,000 live births (this figure was estimated at 280 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 67 per cent of all mortality in Guyana in 2012. In 2012 the most prevalent NCDs were cardiovascular diseases (33 per cent). Cancer, diabetes and non-communicable variants of respiratory diseases contributed ten per cent, nine per cent and one per cent to total mortality, respectively (2012). Injuries accounted for 16 per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 17 per cent of all mortality in 2012. The prevalence of HIV in Guyana, as a percentage of people aged 15–49 years, stood at 1.4 per cent in

2012. There has been an overall rise in the levels of HIV over the period 1990–2012. The number of deaths from malaria has fallen overall since 2004, while the number of confirmed cases of the disease fluctuated throughout the period 2000–12, having shown an initial drop before rising back to earlier levels. Estimated incidence of tuberculosis (TB) has risen overall in the period 1990–2012 and estimated mortality (when mortality data excludes cases comorbid with HIV) has also increased during this time.

The most commonly diagnosed mental illness in Guyana is schizophrenia.

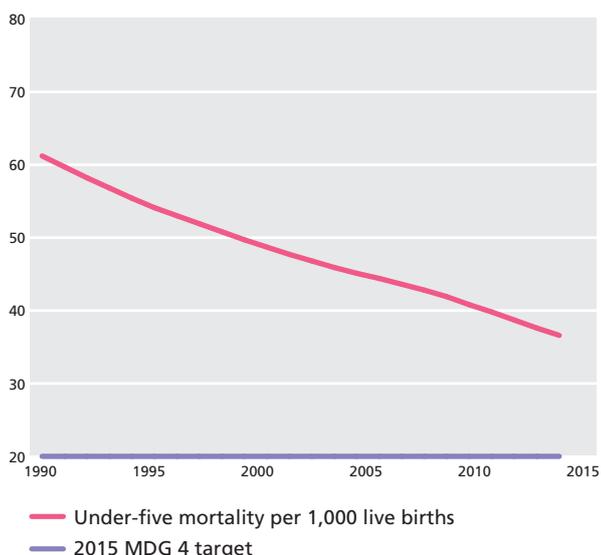
Health systems: In 2012 government expenditure on health was 4.3 per cent of GDP, equivalent to US\$155 per capita. In the most recent survey, conducted between 1997 and 2010, there were 21 doctors, and 53 nurses and midwives per 100,000 people. Additionally, in 2009, 87 per cent of births were attended by qualified health staff and in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2012, 98 per cent of

people were using an improved drinking water source and 84 per cent had access to adequate sanitation facilities.

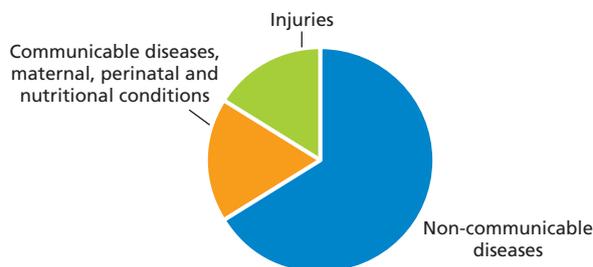
Health and medical care in Guyana is provided by both public and private suppliers. The public health care system is highly decentralised and is administered through the Regional Democratic Councils and Regional Health Authorities, with ministerial oversight vested in the Ministry of Local Government and Regional Development. Public health care is primarily financed by the government, but contributions from the donor community also play a part. The Ministry of Health plays a central role in advising and co-ordinating public health care organisations, ensuring that public health services are developing in line with the government’s National Health Plan. The Public Hospital at Georgetown is Guyana’s national referral hospital. There are some 30 hospitals and many health centres throughout the country, with both public and private care available, the former usually free. The private health care sector operates independently but is subject to regulations that ensure standards of care and practice. There is significant involvement of non-governmental organisations in service delivery related to HIV/AIDS. A small pharmaceutical industry exists in the country producing a range of medicines, including antiretroviral treatments for HIV.

The most recent act of parliament relating to mental health in Guyana is the Mental Health Ordinance 1930.

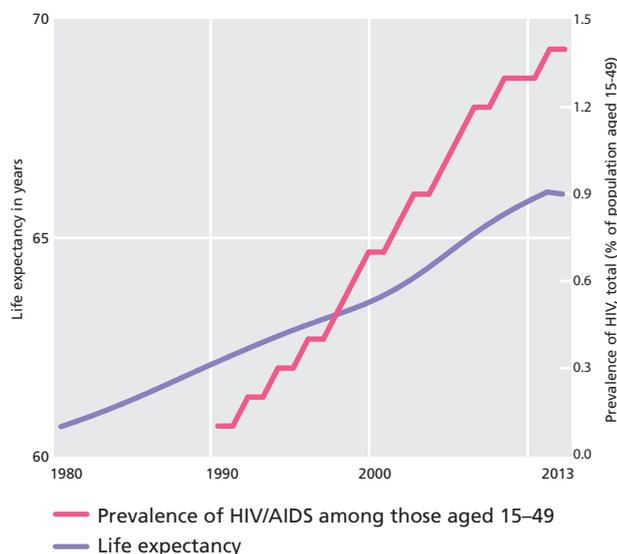
Under-five mortality



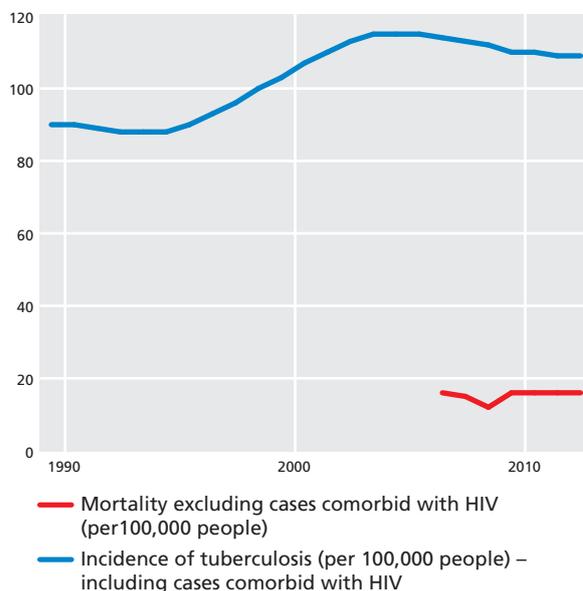
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Guyana to achieve its targets for the reduction of child mortality, which form MDG 4, Guyana should have reduced under-five deaths per 1,000 live births to 20 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 37 deaths per 1,000 live births and measles immunisation at 99 per cent. While the measles target has nearly been met, Guyana would have to have halved its under-five mortality rate in two years to achieve this target.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Guyana, maternal mortality should, therefore, fall to 53 cases per 100,000 live births. In 2013 Guyana had an adjusted maternal mortality ratio of 250 deaths per 100,000 live births (this figure was estimated at 280 deaths per 100,000 by UN agencies/World Bank in 2010). This is almost five times the target figure. Guyana is, therefore, very unlikely to achieve this target by 2015. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In the most recent year for which data is available (2009) this figure stood at 87 per cent, indicating that this target is also unlikely to be met.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. While HIV levels have been declining since 2001, Guyana continues to have problems with other major communicable diseases, particularly malaria and TB. The country is unlikely to meet its MDG 6 targets when the 2015 data is analysed.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Just over a third of health care in Guyana (34 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2013. Total health expenditure constituted 6.6 per cent of GDP in 2012, of which 66 per cent (US\$155 per capita) was covered by the government.

Public health services are mainly financed in large part by the government with contributions from the donor community. At the time of writing there was no national health insurance system in place in Guyana, although a national insurance scheme did already exist for employees in the country and was mandatory for all employed persons between the ages of 16–60, including the self-

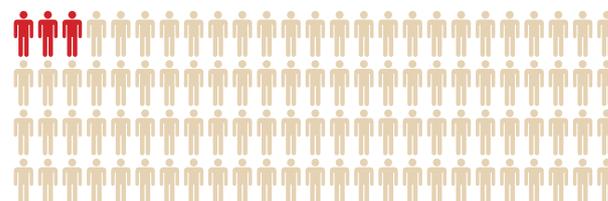
employed. Guyana's Health Vision 2020 provides a long-term plan to consolidate the progress made in pursuit of the health MDGs, aiming to close any remaining gaps in development. It aims to establish a post-2015 development agenda for Guyana through expanding universal health coverage, and facilitating behavioural and cultural changes through the delivery of improved health services.

Guyana has signed and ratified the International Covenant on Economic, Social and Cultural Rights, which includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 27,000 people in Guyana are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person living in Guyana can be expected to live for an additional 17 years, on average (2013). Guyana's old age pension scheme dates back to 1944 and became universal in 1993. Monthly pension credits are paid by the state at a rate of US\$65 per person (2007–12) on a universal basis. Overall, public pension spending is equivalent to 0.1 per cent of the country's total economic output (2010).

Population over 65

3%



Due to the small size of the old-age pension in Guyana, many elderly people continue to be employed into their 80s or, if retired, live at home with the support of their family. Residential homes are beyond the means of many elderly citizens in Guyana as the majority are privately run. Two exceptions are The Palms, a government-subsidised residential home in Georgetown, and the Dharm Shala in Albouystown, a not-for-profit organisation run by a family and charitable donors.

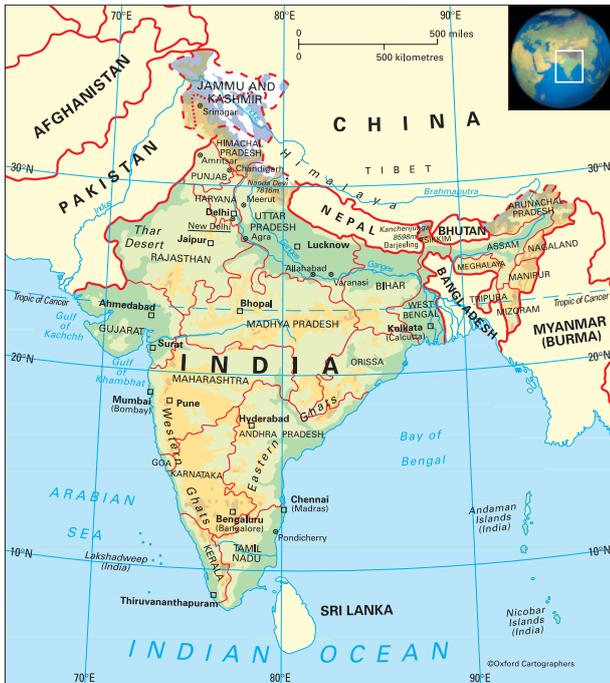
Further information

Ministry of Health: www.health.gov.gy

Commonwealth Health Online:
www.commonwealthhealth.org/health/americas/guyana



India



The designations and the presentation of material on this map, based on UN practice, do not imply the expression of any opinion whatsoever on the part of the Commonwealth Secretariat or the publishers concerning the legal status of any country, territory or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. There is no intention to define the status of Jammu and/or Kashmir, which has not yet been agreed on by the parties.

KEY FACTS

Joined Commonwealth:	1947
Population:	1,252,140,000 (2013)
GDP p.c. growth:	4.7% p.a. 1990–2013
GNI p.c.:	US\$1,570 (2013)
UN HDI 2014:	World ranking 135
Life expectancy:	66 years (2013)
Under-five mortality rate (per 1,000 live births):	53 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	1.3% of GDP (2013)

General information

The Republic of India, which lies across the Tropic of Cancer, comprises most of the Indian subcontinent. It also includes the Andaman and Nicobar Islands in the Bay of Bengal and the Lakshadweep Islands in the Arabian Sea. Its neighbours are Pakistan, Afghanistan and China to the north, then Nepal, Bhutan, Bangladesh and Myanmar (formerly Burma). In the south, the Palk Strait separates it from Sri Lanka.

India comprises 29 states (including the Delhi National Capital Territory) and six union territories.

Climate: The climate is hot with regional variations. Rajasthan and large parts of the north-west are dry (less than 750 mm annual rainfall) and the Thar Desert (in fact a semi-desert) receives around 300 mm. Four-fifths of rain falls in June–September, the season of the monsoon. April–June is generally hot, dry and dusty.

Environment: The most significant environmental issues are: that finite natural resources support a very large and growing population; deforestation, soil erosion and desertification; air pollution with industrial effluents and vehicle emissions; and water pollution with raw sewage and run-off of agricultural pesticides.

Population: 1,252,140,000 (2013); country population is the world's second-largest, after China; 32 per cent of people live in urban areas and 14 per cent in urban agglomerations of more than a million people. Around 56 per cent of all Commonwealth residents and 18 per cent of all the people in the world live in India. The population growth rate stood at 1.6 per cent p.a. between the years 1990 and 2013. In 2013 the birth rate was 20 per 1,000 people (38 in 1970) and life expectancy was 66 years (29 in 1947 and 49 in 1970).

The population of India is extremely diverse, comprising almost entirely peoples who have migrated from other parts of the world over previous millennia. Dravidian peoples, who came to India from the Mediterranean region some 5,000 years ago, now constitute about 25 per cent of the population and live predominantly in the southern states of India. Indo-Aryans, who account for more than 70 per cent of the population, came from Northern Europe 3,500–4,000 years ago. Later migrations included peoples from Central Asia and China.

Economy: India is classified as a lower-middle-income economy by the World Bank.

Health

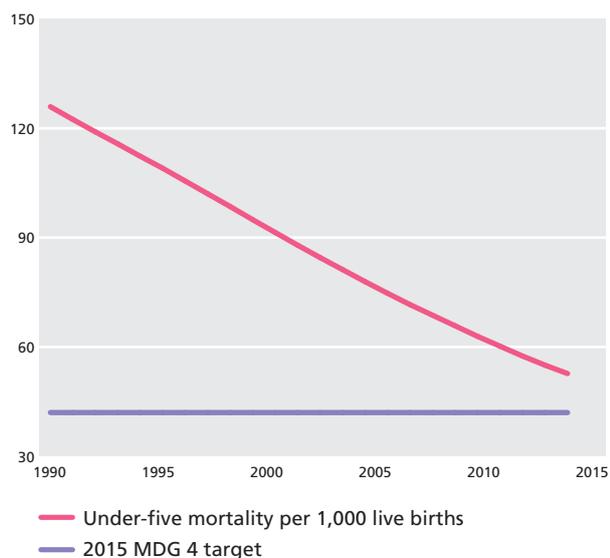
Child and maternal health: The rate of infant mortality in India was 41 deaths per 1,000 live births in 2013, with an under-five mortality rate of 53 deaths per 1,000 live births in 2013. Under-five mortality in India has been declining steadily since 1990. Although this decrease is encouraging, the under-five mortality rate has not yet reached the country's target of 42 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent known causes of death for children below the age of five years were prematurity (27 per cent), acute respiratory infections (14 per cent), diarrhoea (11 per cent) and intrapartum-related complications (11 per cent). Other contributory causes were neonatal sepsis (eight per cent), congenital anomalies (six per cent), injuries (four per cent) and measles (two per cent). In 2013 India had an adjusted maternal mortality ratio of 190 deaths per 100,000 live births (this figure was estimated at 200 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 60 per cent of all mortality in India in 2012. In 2012 the most prevalent NCDs were cardiovascular diseases (26 per cent). Non-communicable variants of respiratory diseases, cancer and diabetes contributed 13 per cent, seven per cent and two per cent to total mortality, respectively (2012). Injuries accounted for 12 per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 28 per cent of all mortality in 2012. In 2012 HIV prevalence among adults aged 15–49 years in India was approximately 0.3 per cent. The overall number of confirmed cases of, as well as deaths from, malaria in the country decreased significantly in the period 2000–12. Estimated incidence of tuberculosis (TB) fell overall in the period 1990–2013. This trend was reflected in the estimated levels of TB mortality (when mortality data excludes cases comorbid with HIV), which also fell slightly during this time.

The most commonly diagnosed mental illnesses in India are depression, personality disorder and anxiety. Also present are mental health conditions relating to psychoactive substance misuse.

Under-five mortality



Life expectancy

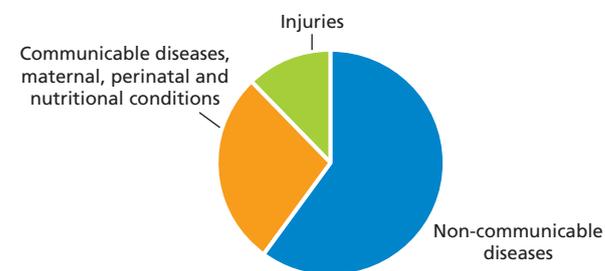


Health systems: In 2012 government expenditure on health was 1.3 per cent of GDP, equivalent to US\$20 per capita. In the most recent survey, conducted between 1997 and 2012, there were 70 doctors, and 171 nurses and midwives per 100,000 people. Additionally, in 2011, 67 per cent of births were attended by qualified health staff and in 2013, 74 per cent of one-year olds were immunised with one dose of measles. In 2012, 93 per cent of people were using an improved drinking water source and 36 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that India has 52 pharmaceutical personnel per 100,000 people.

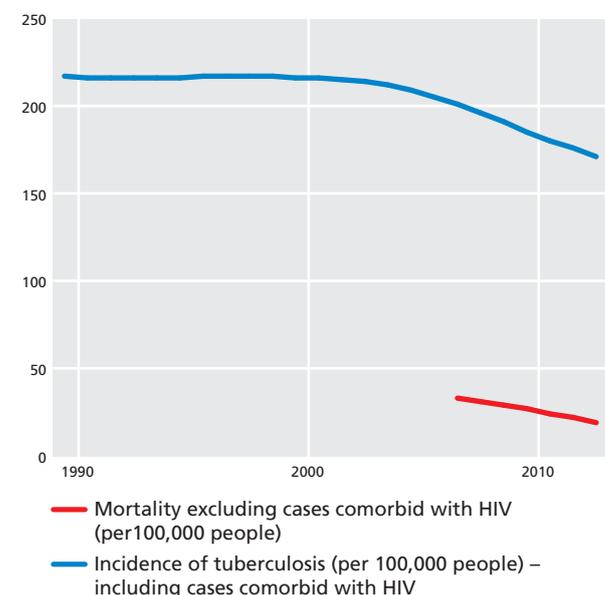
National health programmes have been established to combat malaria, filaria, sexually transmitted diseases (including HIV/AIDS), leprosy and TB. Family welfare centres give advice and education on family planning. India is one of world’s largest consumer-directed health care markets, with private sector spending making up around 80 per cent of total health expenditure in 2007. There is no specific licensing system for hospitals, most of which are in urban areas and include charitable hospitals, religious mission hospitals, privately funded hospitals and government hospitals. The rural health care system is provided by more than 20,000 centres, backed by sub-centres, community health centres and dispensaries.

Private health insurance grew significantly in the period 2000–10 following deregulation. There are about 10,000 companies involved in the multi-billion-dollar pharmaceutical industry. The pharmaceutical industry is heavily regulated, with more than 354

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



drugs subject to government price controls. Regulation is carried out by the Drug Controller General of India.

A mental health bill put forward in 2013 sought to improve treatment, protect rights and, significantly, to decriminalise suicide. This was passed in October 2014 and was reinforced by the creation of a National Mental Health Day.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For India to achieve its targets for the reduction of child mortality, which form MDG 4, it would need to have reduced under-five deaths per 1,000 live births to 42 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 53 deaths per 1,000 live births and measles immunisation at 74 per cent, making the achievement of these goals unlikely.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For India, maternal mortality should fall to 150 cases per 100,000 live births. In 2013 India had an adjusted maternal mortality ratio of 190 deaths per 100,000 live births (this figure was estimated at 200 deaths per 100,000 by UN agencies/World Bank in 2010). Although significant progress has been made since 1990, India is unlikely to achieve this target. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2011 this figure stood at 67 per cent, so this target is unlikely to be met.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. India must reduce the high levels of malaria, TB and leprosy if this goal is to be achieved. There is insufficient information from international agencies to confirm the country's progress on this goal with regard to HIV/AIDS.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Only a third of health care in India (33 per cent) was government funded in 2012. The remaining 67 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 4.0 per cent of GDP in 2012. Expenditure by government amounts to US\$20 per capita.

Following a series of consultations among Indian civil society activists and development specialists, a number of issues have been identified that should be addressed in India's post-2015 health agenda. One of the main ones is equitable access to basic public health care, clean water and safe sanitation. At the time of writing, access to health care was of significant concern in India, with many people in remote areas unable to access primary health care. In the long term, access to primary health centres needs to be made universal, even in remote parts of the country. Furthermore, benchmarks for the financing of health services through domestic resources and donor aid must be established. India needs to work towards ensuring five per cent of its GDP is spent on health (as per World Health Organization recommendations) – its spending on health in 2013 was just 1.3 per cent of GDP.

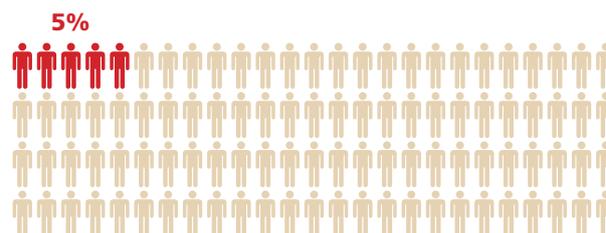
At the start of the period covered by India's 12th five-year plan (2012–17) the government of India announced aims to achieve universal health coverage by the end of 2017. As part of the plans for universal health coverage all citizens will be entitled to comprehensive health security in the country. It will also be obligatory for the state to provide adequate food, safe drinking water, proper sanitation, education and health-related information for all citizens.

India was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1979 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 66 million people in India are over the age of 65 – five per cent of the total population (2013). At the age of 60 a person living in India can be expected to live for an additional 17 years, on average (2013). The Indira Gandhi National Old Age Pension Scheme dates back to 1995 and was updated in 2007. Monthly pension credits are paid by the state at a rate of US\$3 per person (2007–12) on a means-tested basis. Overall, public pension spending is equivalent to one per cent of the country's total economic output (2012).

The elderly are held in high esteem in traditional Indian cultures, and are typically cared for by their children or the community. There are also several private elderly care homes and companies offering home care services. However, with the population of India rapidly ageing, the government is beginning to take steps to ensure that elderly citizens receive the care that they need. The population over the age of 60 years in India has tripled in last 50 years and is expected to continue increasing at a high level in the near future.

Population over 65



To this end, the government is currently engaged in implementing the National Program for the Health-Care for the Elderly (NPHCE), which is due to come into force in 2016–17. The programme assesses the international and national commitments of the government as envisaged under the UN Convention on the Rights of Persons with Disabilities and other acts, and deals with provisions for medical care of senior citizens. The NPHCE aims to, among other things, provide accessible, affordable and high-quality long-term, comprehensive and dedicated care services for the elderly.

Further information

Ministry of Health and Family Welfare: www.mohfw.nic.in

Commonwealth Health Online: www.commonwealthhealth.org/health/asia/india



Jamaica



KEY FACTS

Joined Commonwealth:	1962
Population:	2,784,000 (2013)
GDP p.c. growth:	0.5% p.a. 1990–2012
GNI p.c.:	US\$5,220 (2013)
UN HDI 2014:	World ranking 96
Life expectancy:	74 years (2013)
Under-five mortality rate (per 1,000 live births):	17 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	3.3% of GDP (2012)

General information

Jamaica, whose name comes from the Arawak Xaymaca, meaning 'Land of Wood and Water', lies south of Cuba and west of Haiti.

Climate: Tropical at the coast (22–34°C), with fresh sea breezes; markedly cooler in the mountains. Rainfall ranges from 1,500 mm p.a. in Kingston to 3,850 mm p.a. in Port Antonio. Jamaica lies in the hurricane zone.

Environment: The most significant environmental issues are deforestation; pollution of coastal waters by industrial waste, sewage and oil spills; damage to coral reefs; and air pollution in Kingston due to vehicle emissions.

Population: 2,784,000 (2013); 54 per cent of people live in urban areas. The population growth rate stood at 0.7 per cent p.a. between the years of 1990 and 2013, but emigration (principally to the UK, Canada and the USA) has been significant for two

generations. In 2013 the birth rate was 18 per 1,000 people (35 in 1970) and life expectancy was 74 years (68 in 1970).

Economy: Jamaica is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Jamaica was 14 deaths per 1,000 live births in 2013, with an under-five mortality rate of 17 deaths per 1,000 live births in 2013. The under-five mortality rate in Jamaica has fallen steadily since the early 1990s; however, it is not yet in line with the target of ten deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2012 the three most prominent known causes of death for children below the age of five years were prematurity (25 per cent), congenital anomalies (21 per cent) and intrapartum-related complications (nine per cent). Other contributory causes were acute respiratory infections (eight per cent), neonatal sepsis (seven per cent), injuries (seven per cent), diarrhoea (two per cent) and HIV/AIDS (one per cent). In 2013 Jamaica had an adjusted maternal mortality ratio of 80 deaths per 100,000 live births (this figure was estimated at 110 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) in Jamaica accounted for an estimated 79 per cent of all mortality in 2012. In 2012 the most prevalent NCDs were cardiovascular diseases (37 per cent). Cancer, diabetes and non-communicable variants of respiratory diseases contributed 17 per cent, 11 per cent and three per cent to total mortality, respectively (2012). Injuries accounted for seven per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 14 per cent of all mortality in Jamaica in 2012. The prevalence of HIV in Jamaica, as a percentage of people aged 15–49 years, was 1.8 per cent in 2012. Levels of HIV in the country peaked in the late 1990s. Jamaica is a non-endemic country for malaria. Estimated incidence of tuberculosis (TB) decreased slightly in the period 1990–2013, showing considerable fluctuation, while estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease remained consistent in the period 2007–13.

The most commonly diagnosed mental illnesses in Jamaica are depression and schizophrenia.

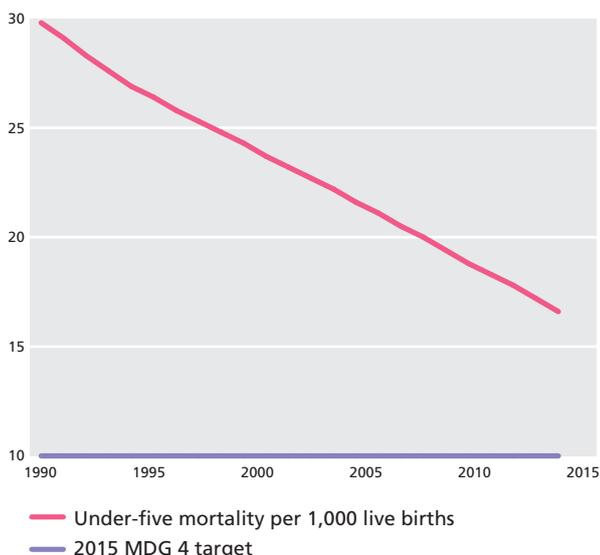
Health systems: In 2012 government expenditure on health was 3.3 per cent of GDP, equivalent to US\$175 per capita. In the most recent survey, conducted between 1997 and 2009, there were 85 doctors, and 165 nurses and midwives per 100,000 people. Additionally, in 2012, 96 per cent of births were attended by qualified health staff and in 2013, 94 per cent of one-year-olds were immunised with one dose of measles. In 2012, 93 per cent of the Jamaican population had access to improved water sources and 80 per cent had access to adequate sanitation facilities.

The country has more than 20 hospitals and more than 340 health care centres, most of which are public. The Ministry of Health is responsible for the implementation of effective service delivery and for occupational health and safety. Though public health care is subsidised by the government, citizens pay rates proportional to their income. About nine per cent of people have private health insurance (2006). There is some local pharmaceutical manufacturing, although the medical and pharmaceutical market as a whole is dominated by imports, about a third of which are supplied by the USA.

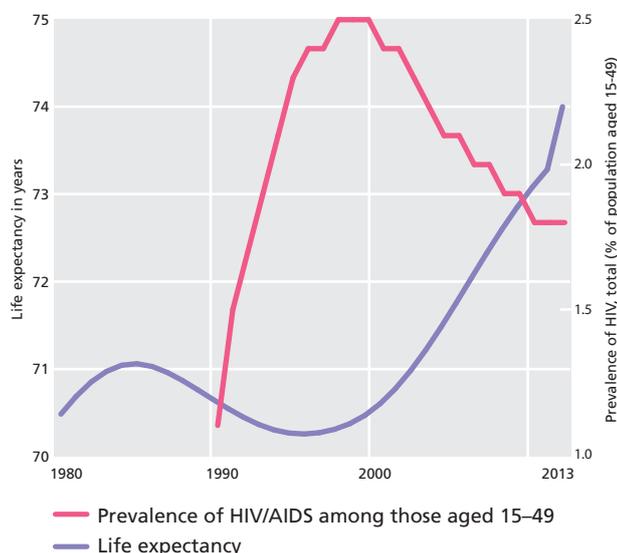
The most recent act relating to mental health in Jamaica is the Mental Health Act 1997. There are 5.1 mental health outpatient facilities and 2.9 psychiatric beds in general hospitals per 100,000 people (2011).

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

Under-five mortality



Life expectancy and HIV/AIDS

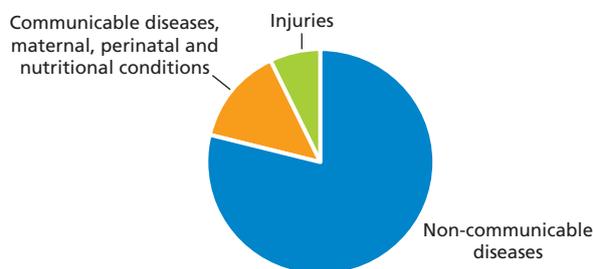


For Jamaica to achieve its targets for the reduction of child mortality, which forms MDG 4, it should have reduced under-five deaths per 1,000 live births to ten and increased measles immunisation to 100 per cent when the 2015 data is analysed. The country has shown continued improvement in both of these factors since 1990. In 2012 under-five mortality was approximately 17 deaths per 1,000 live births and measles immunisation is 94 per cent, but further progress must be made if Jamaica is to meet the goal when the 2015 data is analysed.

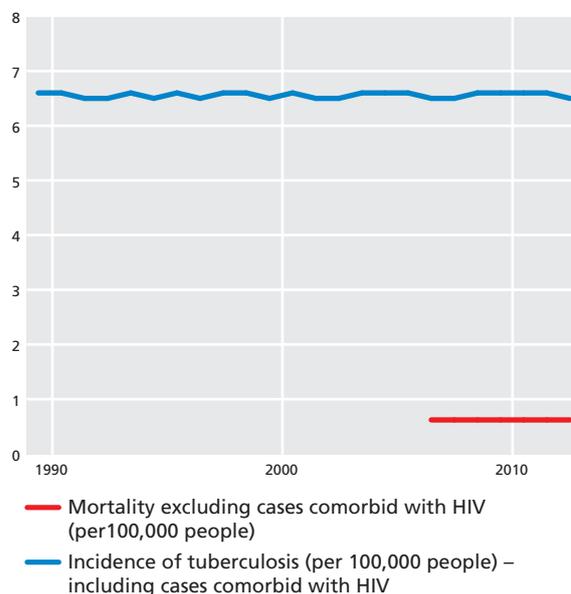
The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Jamaica, therefore, maternal mortality should have fallen to 15 cases per 100,000 live births. In the period 2013 Jamaica had an adjusted maternal mortality ratio of 80 deaths per 100,000 live births (this figure was estimated at 110 deaths per 100,000 by UN agencies/World Bank in 2010). Jamaica's maternal mortality rate is almost six times the target figure set by MDG 5, so this part of the goal is very unlikely to be achieved. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2012 this figure stood at 96 per cent, suggesting that achievement of this part of the goal is more realistic.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Jamaica's HIV prevalence has fallen since 2000 but is still above 1990 levels. Since 1990 there has been a significant

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



reduction in estimated tuberculosis (TB) mortality (when mortality data excludes cases comorbid with HIV), but only a slight drop in incidence. Jamaica is unlikely to meet its goals for MDG 6 by 2015.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Almost half of health care in Jamaica (45 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 5.9 per cent of GDP in 2012, of which 54 per cent (US\$175 per capita) was covered by the government.

Jamaica has signed and ratified the International Covenant on Economic, Social and Cultural Rights, which includes ‘the right of everyone to the enjoyment of the highest attainable standard of physical and mental health’. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

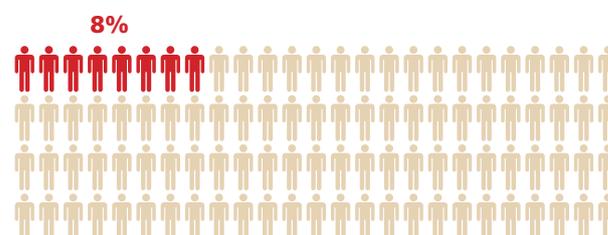
According to a 2013 report by the World Bank, Jamaica’s primary health care system was a model for the Caribbean region in the 1990s, which has resulted in citizens of the country enjoying relatively better health status than people in other, similar countries in the Caribbean region. Since the turn of the century, the government of Jamaica has made moves to try and improve access to health care for its population. This has resulted in the establishment of the Jamaica National Health Fund (NHF) in 2003 and the abolition of user fees at public facilities in 2008.

In July 2014 a High Level Consultation on Universal Health Coverage was held in Kingston, during which the Minister of Health, Fenton Ferguson, announced that the government was continuing to take steps towards universal health coverage (UHC) for all Jamaicans. Recent efforts towards this end include the upgrading of infrastructure, with more than 100 health centres refurbished under the Primary Care Infrastructure Renewal Programme, and spending, since 2012, US\$1.5 billion of public funding on equipment acquisition and the upgrading of hospitals.

Care of the Elderly: Around 220,000 people in Jamaica are over the age of 65 – eight per cent of the total population (2013). At the age of 60 a person in Jamaica can be expected to live for an additional 21 years, on average (2013). Jamaica’s pension scheme, part of the Programme for Advancement through Health and Education, dates back to 2001. Monthly pension credits are paid by the state at a rate of US\$9 per person (2007–12) on a means-tested basis. Overall, public pension spending is equivalent to 0.1 per cent of the country’s total economic output (2009).

There are multiple public and private residential homes in Jamaica, including Safe Haven Home for the Aged. Over the years several residential homes in the country have been called into question over the quality of care and services offered to elderly residents. In general, the West Indian culture is against the practice of putting elderly relatives into institutions, preferring them to be cared for at home by their family.

Population over 65



HelpAge Jamaica, an affiliate of HelpAge International, is a non-profit, charitable organisation in Jamaica that helps to care of the elderly community. The organisation helps cater to the interests of the elderly in the country, and is involved in organising community health and information fairs that help senior citizens to access health care and medication. At the time of writing these fairs had benefited more than 3,000 people nationwide.

Further information

Ministry of Health: www.moh.gov.jm

Commonwealth Health Online:

www.commonwealthhealth.org/health/americas/jamaica



Kenya



KEY FACTS

Joined Commonwealth:	1963
Population:	44,354,000 (2013)
GDP p.c. growth:	0.6% p.a. 1990–2013
GNI p.c.:	US\$930 (2013)
UN HDI 2014:	World ranking 147
Life expectancy:	62 years (2013)
Under-five mortality rate (per 1,000 live births):	71 (2013)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	1.8% of GDP (2012)

General information

Kenya lies astride the equator, extending from the Indian Ocean in the east to Uganda in the west, and from the United Republic of Tanzania in the south to Ethiopia and South Sudan in the north. On the east and north-east it borders Somalia. The country is divided into eight provinces (Central, Coast, Eastern, Nairobi, North-Eastern, Nyanza, Rift Valley and Western).

Climate: The coastal areas are tropical, with monsoon winds. The lowlands are hot and mainly dry. The highlands are much cooler and have four seasons. Nairobi, 1,700 metres above sea level, has a

mean temperature that ranges from a minimum of 13°C to a maximum of 25°C; Mombasa, on the coast, from a minimum of 23°C to a maximum of 29°C. Rainfall varies from a mean annual 150 mm at Lodwar in the north-west to 1,470 mm at Kisumu, near Lake Victoria in the west. Northern parts of the country were hit by severe floods in the latter part of 2007.

Environment: The most significant issues are water pollution from urban and industrial wastes; degradation of water quality from increased use of pesticides and fertilisers; water hyacinth infestation in Lake Victoria; deforestation; soil erosion; desertification; and poaching.

Population: 44,354,000 (2013); 25 per cent of people live in urban areas and nine per cent in urban agglomerations of more than a million people. The population growth rate stood at 2.8 per cent p.a. between the years of 1990 and 2013. In 2012 the birth rate was 35 per 1,000 people (51 in 1970) and life expectancy was 62 years (52 in 1970 and 60 in 1990).

Economy: Kenya is classified as a low-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Kenya was 48 deaths per 1,000 live births in 2013, with an under-five mortality rate of 71 deaths per 1,000 live births in 2012. Following a gradual increase in the 1990s, and since peaking in 1997, the under-five mortality rate in Kenya has been decreasing. Although this decrease is encouraging, the under-five mortality rate is still a long way off the country's target of 33 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent causes of death for children below the age of five years were acute respiratory infections (18 per cent), intrapartum-related complications (14 per cent) and prematurity (13 per cent). Other contributory causes were diarrhoea (ten per cent), neonatal sepsis (seven per cent), injuries (seven per cent), congenital anomalies (six per cent), malaria (four per cent) and HIV/AIDS (four per cent). In 2013 Kenya had an adjusted maternal mortality ratio of 400 deaths per 100,000 live births (this figure was estimated at 360 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions in Kenya accounted for an estimated 63 per cent of all mortality in 2012. The prevalence of HIV in Kenya, as a percentage of people aged 15–49 years, was six per cent in 2012. In the period 1990–2013 the prevalence of HIV rose overall and it is now approximately twice that of 1990, although it has been falling since a peak in the mid-1990s. Between 2002 and 2011 the number of confirmed cases of malaria rose significantly, whereas confirmed deaths from the disease fell in the same period, with the most dramatic decline occurring since

2010. Estimated incidence of tuberculosis (TB) almost doubled overall in the period 1990–2013, whereas estimated mortality (when mortality data excludes cases comorbid with HIV) has remained the same overall in this period, despite some fluctuation.

Non-communicable diseases (NCDs) in Kenya accounted for an estimated 27 per cent of all mortality in 2012. In 2008 the most prevalent NCDs were cardiovascular diseases (nine per cent). Cancer, diabetes and non-communicable variants of respiratory diseases contributed seven per cent, two per cent and one per cent to total mortality, respectively (2012). Injuries accounted for ten per cent of deaths in 2012.

There is a lack of information concerning common diagnoses of mental illness in Kenya. Neuropsychiatric disorders contributed an estimated 5.7 per cent of the global burden of disease in 2008.

Health systems: Kenya's public spending on health was 1.8 per cent of GDP in 2012, equivalent to US\$17 per capita. In the most recent survey conducted between 1997 and 2011, there were 18

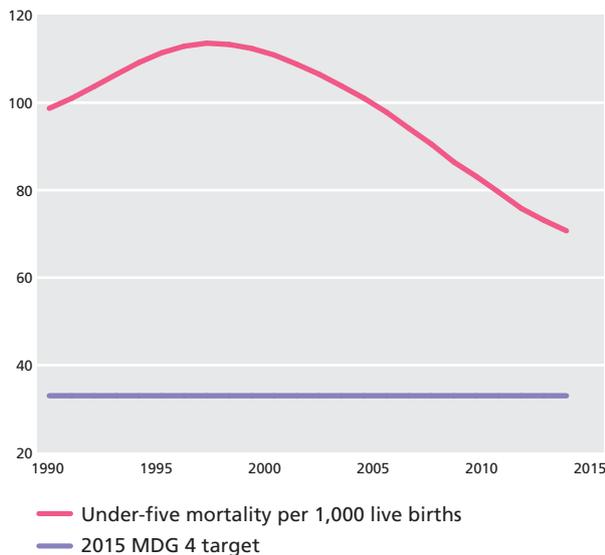
doctors, and 79 nurses and midwives per 100,000 people. Additionally, in 2009, 44 per cent of births were attended by qualified health staff and in 2013, 93 per cent of one-year olds were immunised with one dose of measles. In 2012, 62 per cent of people were using an improved drinking water source and 30 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Kenya has 16 pharmaceutical personnel per 100,000 people.

Kenyatta National Hospital in Nairobi is the country's major hospital. Other hospitals include Mombasa Hospital and Aga Khan Hospital, and private hospitals include Nairobi Hospital, Karen Hospital, Diani Beach Hospital and the Mater Hospital. Kenya is the largest producer of pharmaceutical products in the Common Market for the eastern and southern Africa region. The local pharmaceutical industry in Kenya consists of three segments, namely manufacturers, distributors and retailers. Local manufacturing caters to about a third of the market demand and the rest is fulfilled by imports.

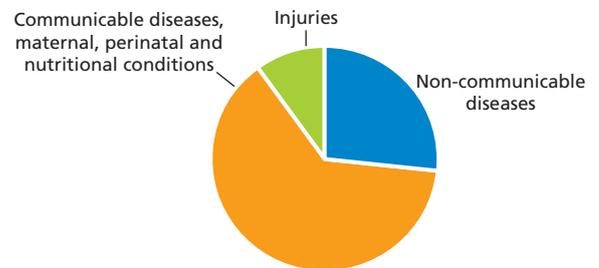
The most recent act relating to mental health in Kenya is the Mental Health Act 2013. The Mathari Psychiatric Hospital is the country's only mental health inpatient facility and it is institutional in focus.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

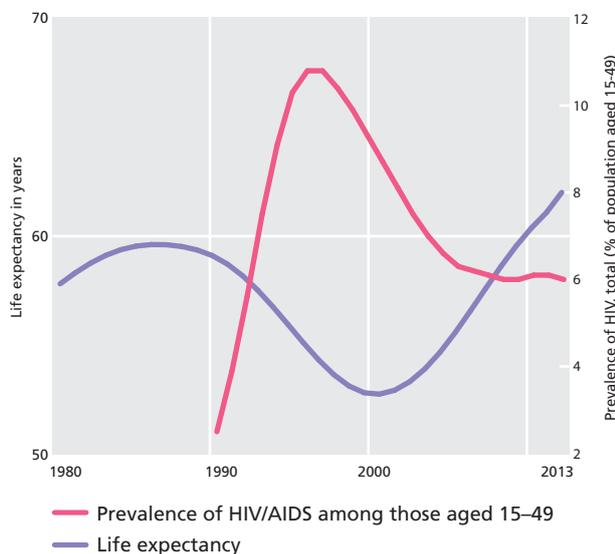
Under-five mortality



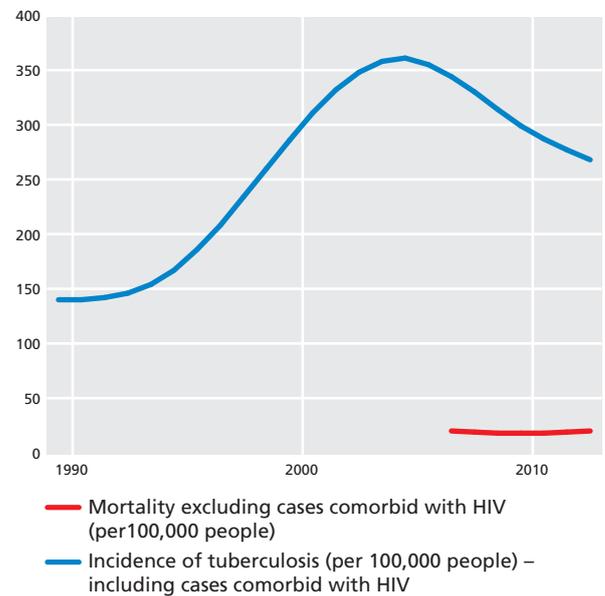
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



For Kenya to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 33 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 71 deaths per 1,000 live births and measles immunisation at 93 per cent, which suggests that Kenya is unlikely to meet this goal.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Kenya, therefore, maternal mortality should fall to 100 cases per 100,000 live births. In 2013 Kenya had an adjusted maternal mortality ratio of 400 deaths per 100,000 live births (this figure was estimated at 360 deaths per 100,000 by UN agencies/World Bank in 2010) – four times the target. It is therefore very unlikely that Kenya will achieve this goal. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2009 this figure stood at 44 per cent, with more recent data unavailable.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. HIV prevalence in Kenya is high and there has been little significant reduction since 2005. Kenya continues to have a high level of tuberculosis (TB) incidence and mortality (when mortality data excludes cases comorbid with HIV), although confirmed deaths from malaria have fallen significantly. Kenya is unlikely to meet its MDG 6 goals.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Only a third of health care in Kenya (38 per cent) was government funded in 2012. The remaining 62 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 4.7 per cent of GDP in 2012. Expenditure by government amounts to just US\$17 per capita.

In 2014 a new collaborative strategy aiming to provide health insurance for the poorest families of Kenya began its first phase. The Kenyan government hopes that its successful implementation can provide subsidies for inpatient and outpatient health care for those in need across the country. The World Bank has lent support in the form of US\$20 million.

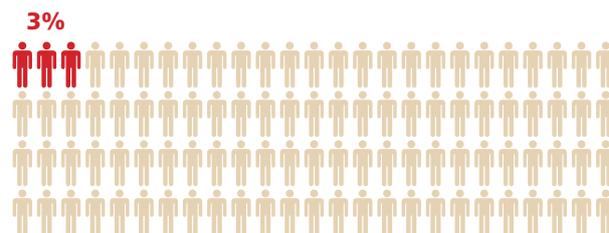
The Kenya Health Policy 2012–30 aims to attain a consistently high standard of health care service that responds to the specific needs of the Kenyan population.

Kenya was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1972 and has written the covenant into law. It includes ‘the right of everyone to the enjoyment of the highest attainable standard of physical and mental health’. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 1.1 million people in Kenya are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person living in Kenya can be expected to live for an additional 18 years, on average (2013). Kenya’s Older Persons Cash Transfer Scheme dates back to 2006. Monthly pension credits are paid by the state at a rate of US\$23 per person (2007–12) on a means-tested basis. Overall, public pension spending is equivalent to 1.3 per cent of the country’s total economic output (2012).

Non-governmental organisation HelpAge International has urged the Kenyan government to adopt a policy aiming to promote and protect the rights of the elderly and give a greater priority to issues relating to older people.

Population over 65



The government is, however, promoting education for older people. In 2003 the government brought in free primary school education for people of any age. Kimani Maruge, 84, has since made it into the Guinness Book of World Records as the oldest man to begin at primary school.

Kenya has also begun to see retirement homes opening, mainly run by charities, but with a few operating on commercial lines. Nyumba ya Wazee, or ‘house of the old people’, for example, is based in Nairobi. The facility is run by the Catholic organisation Little Sisters of the Poor, which is funded by donations from the public.

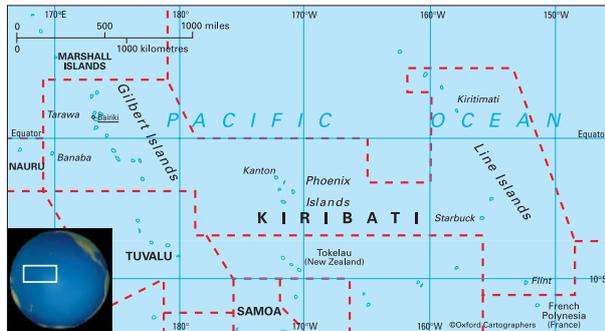
Further information

Ministry of Health: www.health.go.ke

Commonwealth Health Online:
www.commonwealthhealth.org/health/africa/kenya



Kiribati



KEY FACTS

Joined Commonwealth:	1979
Population:	102,000 (2013)
GDP p.c. growth:	0.9% p.a. 1990–2013
GNI p.c.:	US\$2,620 (2013)
UN HDI 2014:	World ranking 133
Life expectancy:	69 years (2013)
Under-five mortality rate (per 1,000 live births):	58 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	8.9% of GDP (2012)

General information

Kiribati (pronounced 'Kiribas') spreads across the central Pacific, intersected by the equator and formerly the International Date Line, with most other Commonwealth Pacific island countries lying to its south. Its 33 islands are scattered across 5.2 million sq km of ocean. There are three groups of islands: 17 Gilbert Islands (including Banaba), eight Line Islands and eight Phoenix Islands.

The north/south extent is 2,050 km. Kiritimati (formerly Christmas Island) is the world's biggest coral atoll (388 sq km). Kiritimati in the east is about 3,780 km from Banaba (formerly Ocean Island) in the west.

Climate: Varies from maritime equatorial (central islands) to tropical in the north and south. There is little temperature variation: from an average 29°C in the southern Gilberts to 27°C in the Line Islands, dropping by less than 1°C in the coolest months. Humidity is constant at 70–90 per cent. North-west trade winds blow March–October. November–April, there are occasional heavy rains and strong to gale force winds, though Kiribati is outside the cyclone belt. Rainfall patterns vary considerably from year to year; drought is a constant danger.

In 1997 Kiritimati was devastated by El Niño, which, according to scientists studying the island, brought heavy rainfall, a half-metre

rise in sea levels and extensive flooding. Some 40 per cent of the coral was killed and the 14 million bird population, reputed to be the world's richest, deserted the island.

Environment: The most significant environmental issues are limited natural freshwater resources and heavy pollution of the south Tarawa lagoon, due to population growth around the lagoon and traditional practices, such as lagoon latrines and open-pit dumping.

Population: 102,000 (2013); the Phoenix Islands, and central and southern Line Islands are mostly uninhabited; 44 per cent of people live in urban areas; population growth is 1.6 per cent p.a. 1990–2013; birth rate 23 per 1,000 people (41 in 1970); life expectancy 69 years (49 in 1970).

The government's resettlement programme, which began in 1989, aimed to transfer almost 5,000 people from the densely populated western atolls to the Line and Phoenix Islands. Five of the Phoenix Islands were designated for residential development in 1995, especially for people from the overcrowded island of South Tarawa.

The people are mostly of Micronesian origin (98.8 per cent in 2000 census). There are also Polynesian and European-descended minorities.

Economy: Kiribati is classified as a lower-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Kiribati was 45 deaths per 1,000 live births in 2013, with an under-five mortality rate of 58 deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1990. Although this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of 32 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2012 the three most prominent causes of death for children below the age of five years were acute respiratory infections (19 per cent), prematurity (14 per cent) and intrapartum-related complications (12 per cent). Other contributory causes were diarrhoea (11 per cent) and congenital anomalies (nine per cent), injuries (eight per cent) and neonatal sepsis (six per cent). In 2013 Kiribati had an adjusted maternal mortality ratio of 130 deaths per 100,000 live births.

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 68 per cent of all mortality in Kiribati in 2008. The most prevalent NCDs in Kiribati are cardiovascular diseases, which accounted for 23 per cent of total deaths across all age groups in 2008. Non-communicable variants of respiratory diseases, cancer and diabetes contributed four per cent, five per cent and eight per cent to total mortality, respectively (2008).

Communicable diseases, along with maternal, perinatal and nutritional conditions in Kiribati, accounted for an estimated 29 per cent of all mortality in 2008. A government paper on HIV/AIDS reported that there were an estimated 28 people living in the country with HIV in 2013. Malaria is non-endemic to Kiribati. In the period 1990–2013 tuberculosis (TB) showed an overall increase in estimated incidence, while estimated mortality (when mortality data excludes cases comorbid with HIV) remained the same.

There is no data to suggest what the most commonly diagnosed mental illnesses in Kiribati are.

Health systems: Kiribati’s public spending on health was 8.9 per cent of GDP in 2012, equivalent to US\$154 per capita. In the most recent survey, conducted in the period 1997–2010, there were 38 doctors, and 371 nurses and midwives per 100,000 people. Additionally, in 2010, 98 per cent of births were attended by qualified health staff and in 2013, 91 per cent of one-year-olds were immunised with one dose of measles. In 2012, 67 per cent of people were using an improved water source and 40 per cent had access to adequate sanitation facilities. The most recent survey,

conducted between 2000 and 2011, reports that Kiribati has 21 pharmaceutical personnel per 100,000 people.

Health care facilities in Kiribati are adequate for routine medical care, but extremely limited in availability and quality. As of 2006, the Kiribati health system comprised a central hospital that received referrals from three sub-divisional hospitals, more than 20 health centres and around 70 dispensaries. In 2013, the Kiribati government received funds to improve health care related to climate change, including facility refurbishment, new equipment and staff training. Tungaru Central Hospital on Tarawa provides a medical service to all the islands. Government dispensaries on all islands are equipped to handle minor ailments and injuries.

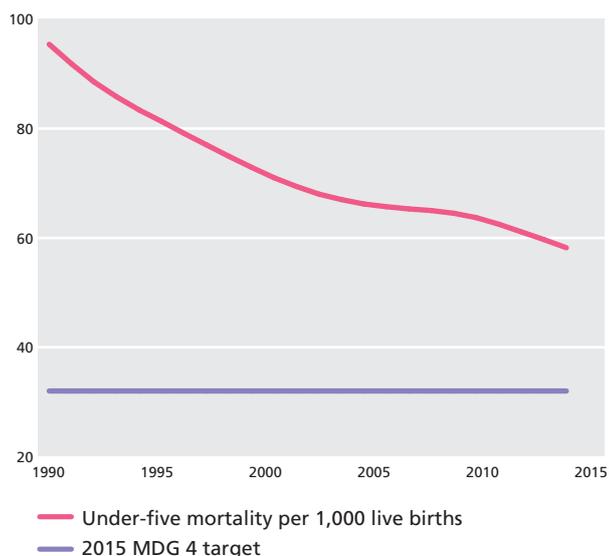
Most of the pharmaceuticals in the country are obtained through pooled procurement methods, in this case known as the Fiji national bulk purchase scheme. To some degree, such programmes overcome the issues regarding poor transportation and communications, and ensure the prices paid for such a range of supplies are fair and competitive. Supplies, especially urgently needed medicines, are also donated by American pharmaceutical companies.

The most recent legislation relating to mental health was last revised in 1977.

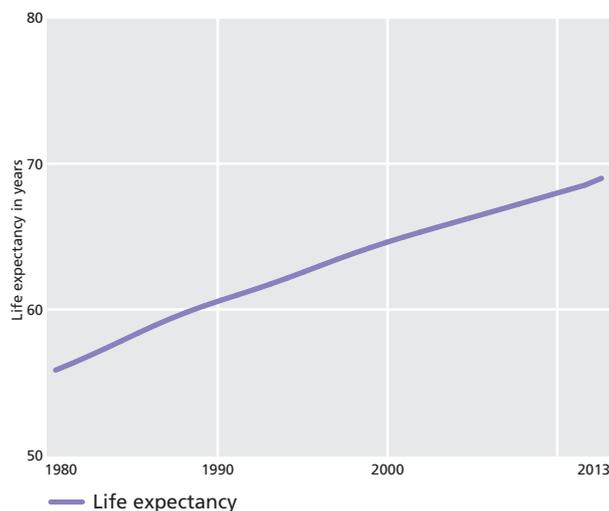
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Kiribati to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 32 and increased measles immunisation to 100 per cent by 2015. In 2013 under-five mortality stood at 58 deaths per 1,000 live births and measles immunisation was at 91 per cent. Kiribati is making consistent progress towards the goal for under-five mortality, but the deaths would need to have halved between 2013 and 2015 in order for the target to be met. While the level of measles immunisation has not yet reached 100 per cent, it is less than ten per cent off this target. The country had no recorded cases of measles in 2010.

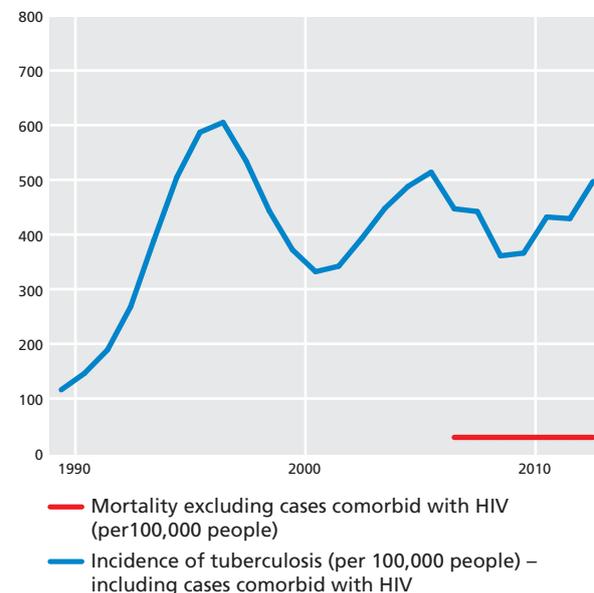
Under-five mortality



Life expectancy



Tuberculosis: Incidence and mortality



The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Kiribati, this target is 63 per 100,000 live births, but in 2013 the country had an adjusted maternal mortality ratio of 130 deaths per 100,000 live births – more than double the target figure. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2010 this figure stood at 98 per cent and so this target is close to being achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. There is not enough information from international agencies to confirm the country's progress on this goal with regard to HIV. Since 1990 tuberculosis (TB) has shown an overall increase in estimated incidence, while estimated mortality (when mortality data excludes cases comorbid with HIV) has remained the same. There is insufficient information available to estimate Kiribati's progress in MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than a fifth of health care in Kiribati (17 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 8.9 per cent of GDP in 2012, of which 83 per cent (US\$154 per capita) was covered by the government.

There is a well-established, publicly funded and provided health system in Kiribati which is administered by the Ministry of Health and Medical Services. There are no private or church-provided health services; as such, the government is the only provider of health services.

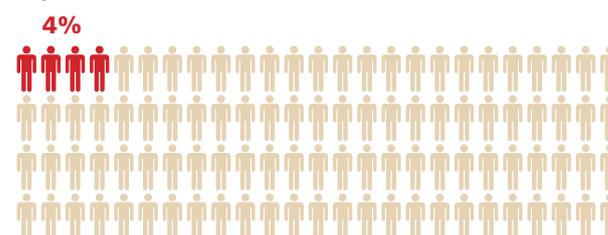
Despite the presence of a publicly funded health care system, the island's small size and remoteness means that health care services can be limited in availability and quality. As such, the Ministry of Health has begun taking steps to improve access to health care on the islands. The Kiribati Health Strategic Plan 2012–15 outlines six strategic objectives for improving health care provision for the population, which include: increasing access to and use of comprehensive family planning services, particularly for vulnerable populations; improving maternal, newborn and child health;

preventing the introduction and spread of communicable diseases through strengthening existing programmes of control and ensuring readiness for any future outbreaks; strengthening initiatives to combat NCD risk factors and reduce morbidity, disability and mortality from NCDs; strengthening the health system and addressing gaps in service delivery; and improving access to appropriate services for youths and victims of gender-based violence.

Kiribati is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to the ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Around 4,000 people in Kiribati are over the age of 65 – four per cent of the total population (2013). At the age of 60 a person living in Kiribati can be expected to live for an additional 17 years, on average (2013). Kiribati's Elderly Fund pension scheme dates back to 2003. Monthly pension credits paid at a rate of US\$47 per person (2007–12) on a universal basis. In 2004 the government introduced the Elderly Allowance, an untargeted, unconditional allowance for everyone over the age of 70.

Population over 65



The I-Kiribati people live in extended family groups, in close communities, living and working in harmony with neighbours. Family is of high importance in the I-Kiribati culture. As such the elderly are often cared for by relatives.

Further information

Commonwealth Health Online:
www.commonwealthhealth.org/health/pacific/kiribati



Lesotho



KEY FACTS

Joined Commonwealth:	1966
Population:	2,074,000 (2013)
GDP p.c. growth:	2.8% p.a. 1990–2013
GNI p.c.:	US\$1,550 (2013)
UN HDI 2014:	World ranking 162
Life expectancy:	49 years (2013)
Under-five mortality rate (per 1,000 live births):	98 (2013)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	9.1% of GDP (2012)

General information

The Kingdom of Lesotho is a small landlocked country entirely surrounded by South Africa. It is known as the 'Mountain Kingdom', the whole country being over 1,000 metres in altitude.

The country is divided into ten districts, each named after the principal town: Berea, Butha Buthe, Leribe, Mafeteng, Maseru, Mohale's Hoek, Mokhotlong, Qacha's Nek, Quthing and Thaba Tseka.

Climate: The climate is temperate with well-marked seasons. The rainy season (receiving 85 per cent of total precipitation) is October–April, when there are frequent violent thunderstorms.

Rainfall averages 746 mm p.a. Temperatures in the lowlands range from 32.2°C to -6.7°C; the range is much greater in the mountains.

From May to September, snow falls in the highlands with heavy frosts occurring in the lowlands.

Environment: The most significant issue is overgrazing, resulting in severe soil erosion and desertification.

Population: 2,074,000 (2013); 26 per cent of people live in urban areas. The population growth rate stood at 1.1 per cent p.a. between the years of 1990 and 2013. In 2012 the birth rate was 27 per 1,000 people (43 in 1970) and life expectancy was 49 years (49 in 1970 and 59 in 1990).

The people are mostly Basotho, with a few thousand expatriate Europeans and several hundred Asians.

Economy: Lesotho is classified as a lower-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Lesotho was 73 deaths per 1,000 live births in 2013, with an under-five mortality rate of 98 deaths per 1,000 live births in 2013. The under-five mortality rate peaked in the period 2004–05 and remains above the rate recorded for 1990. As a result, the under-five mortality rate has not yet reached the country's target of 29 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the most prominent causes of death for children below the age of five years were HIV/AIDS (19 per cent), prematurity (16 per cent), intrapartum-related complications (14 per cent) and acute respiratory infections (12 per cent). Other contributory causes were neonatal sepsis (eight per cent), diarrhoea (seven per cent) injuries (four per cent), congenital anomalies (four per cent) and measles (one per cent). In 2013 Lesotho had an adjusted maternal mortality ratio of 490 deaths per 100,000 live births (this figure was estimated at 620 deaths per 100,000 by UN agencies/World bank in 2010).

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions in Lesotho accounted for an estimated 64 per cent of all mortality in 2012. The prevalence of HIV in Lesotho, as a percentage of people aged 15–49 years, stood at 22.9 per cent in 2012. HIV prevalence rapidly increased during the 1990s and has remained at approximately 23 per cent since the early 2000s. Lesotho is a non-endemic country for malaria, as a result of its high altitude. In the period 1990–2003 the estimated incidence of tuberculosis (TB) in the country saw a dramatic increase, decreasing slightly in 2003–12, with the 2013 rate recorded at 916 cases per 100,000 people. In the period 1990–2012 there was a slight overall decrease in estimated mortality from TB (when mortality data excludes cases comorbid with HIV).

Non-communicable diseases (NCDs) in Lesotho accounted for an estimated 27 per cent of all mortality in 2012. The most prevalent NCDs in Lesotho are cardiovascular diseases, which accounted for 12 per cent of total deaths across all age groups in 2012. Non-communicable variants of respiratory diseases, cancer and diabetes contributed four per cent, three per cent and three per cent, respectively (2012). Injuries accounted for nine per cent of deaths in 2012.

The most commonly diagnosed mental illnesses in Lesotho are depression and anxiety.

Health systems: In 2012 government expenditure on health was 9.1 per cent of GDP, equivalent to US\$108 per capita. In the most recent survey, conducted between 1997 and 2010, there were five doctors, and 62 nurses and midwives per 100,000 people. Additionally, in 2009, 62 per cent of births were attended by qualified health staff and in 2013, 92 per cent of one-year-olds were immunised with one dose of measles. In 2012, 81 per cent

people were using an improved drinking water source and 30 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Lesotho has three pharmaceutical personnel per 100,000 people.

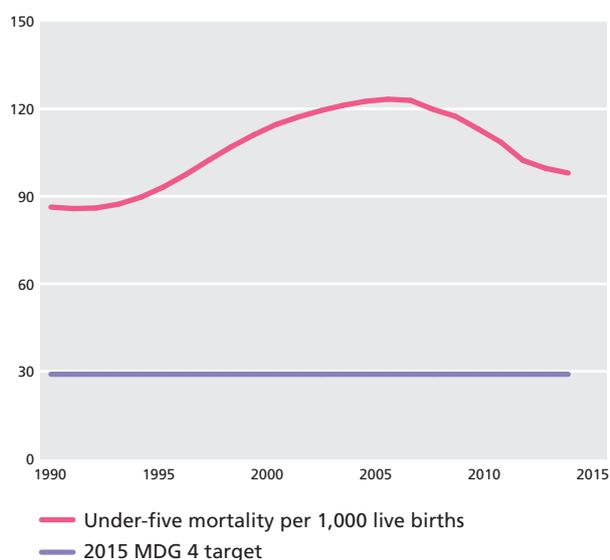
A network of hospitals, clinics and health centres provide basic facilities across most of the country. The Ministry of Health, in conjunction with several non-governmental and private agencies, as well as donors, maintains the health system. The country is divided into health service areas (HSAs), each of which has a government or mission hospital. The central hospital in each HSA works with village health centres that have resident nurses or nurse practitioners. The lowest tier of health delivery is clinics, which receive regular visits from doctors or nurses.

Serious emergencies are often referred to neighbouring South Africa. A new hospital, the Queen Mamohato Memorial, opened in 2011, replacing Queen Elizabeth II Hospital as the country's only referral hospital. As there is no local pharmaceutical manufacturing, all pharmaceuticals are imported (2015).

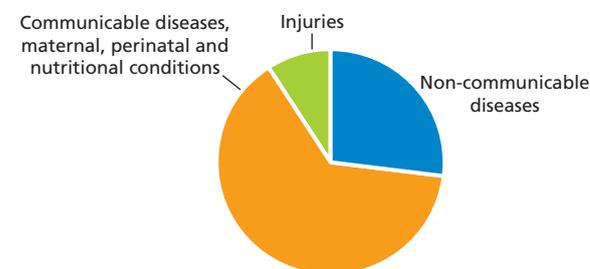
The most recent act of parliament relating to mental health in Lesotho is the Mental Health Law (1964).

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

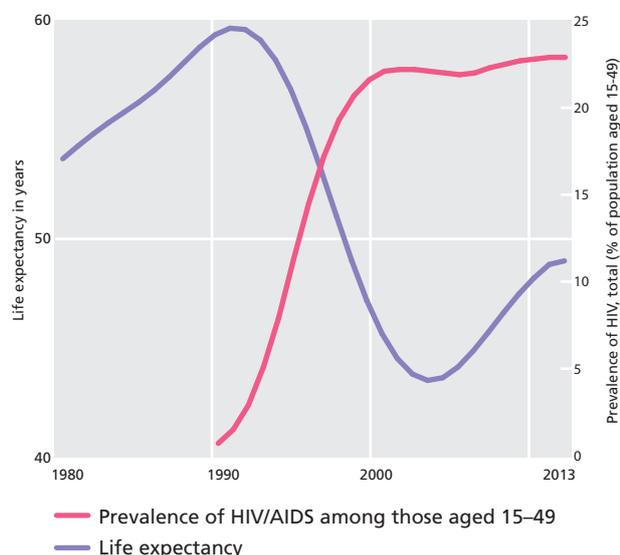
Under-five mortality



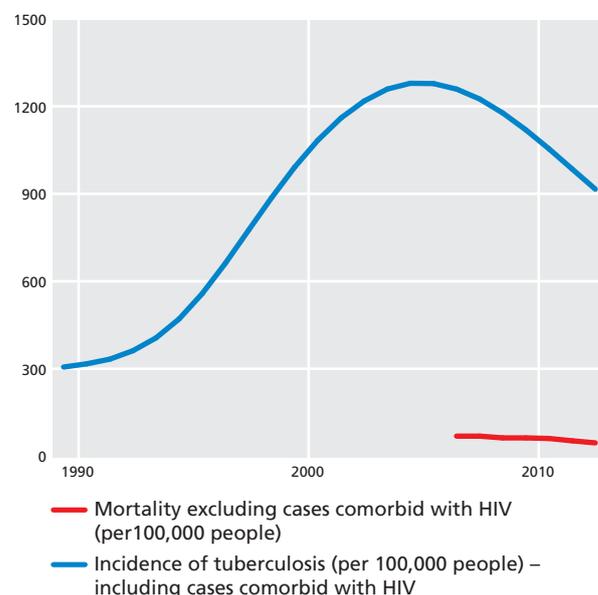
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



For Lesotho to achieve its targets for the reduction of child mortality, which forms MDG 4, it would need to have reduced under-five deaths per 1,000 live births to 29 and increased measles immunisation to 100 per cent when the 2015 data has been analysed. In 2013 under-five mortality stood at 98 deaths per 1,000 live births – three times the target figure – and measles immunisation at 92 per cent. Consequently, Lesotho is unlikely to achieve MDG 4 by 2015.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Lesotho, maternal mortality should fall to 130 cases per 100,000 live births. In 2013 Lesotho had an adjusted maternal mortality ratio of 490 deaths per 100,000 live births (this figure was estimated at 620 deaths per 100,000 by UN agencies/World Bank in 2010). Based on the data reported by the country, the achievement of this target is unlikely. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2009 this figure stood at 62 per cent, so it is unlikely that this target will be achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other communicable diseases. Lesotho's prevalence of HIV was 22.9 per cent in 2012 (in the 15–49 age group). This figure is extremely high and there has been no significant reduction in HIV prevalence since the advent of the disease in the 1980s. The country also has a high incidence of tuberculosis (TB), which is estimated to have increased significantly in the period 1990–2012, although estimated mortality (when mortality data excludes cases comorbid with HIV) from TB has fallen slightly during this time. Accordingly, the targets for MDG 6 are unlikely to be met.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Just over a fifth of health care in Lesotho (21 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Health care services in Lesotho are delivered primarily by the government and the Christian Health Association of Lesotho. Total health expenditure constituted 11.6 per cent of GDP in 2012, of which 79 per cent (US\$108 per capita) was covered by the government.

Access to health services is difficult for many people, especially in rural areas. The country's health system is also challenged by the relentless increase of the burden of disease brought about by HIV/AIDS, and a lack of expertise and human resources.

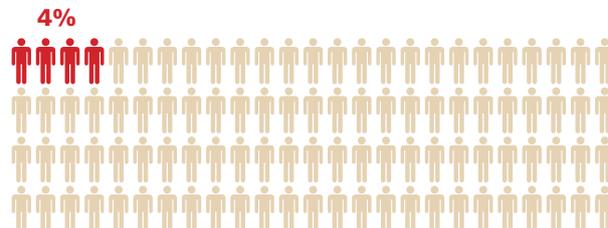
However, efforts to reduce – and even eliminate – mother-to-child transmission of HIV have greatly improved the outlook for at-risk patients. The World Bank, Unicef and other charities have been working to support mothers with antenatal care, regardless of HIV status, throughout the country.

The country's WHO Country Co-operation Strategic Agenda (2014–19) has identified the need to strengthen the health system's capacity and performance as one of its strategic priorities. This includes looking for alternative health care financing to allow equitable access to health care, and enhancing national capacity to ensure access to quality essential medicines, vaccines and medical technologies.

Lesotho was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1992 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 87,000 people in Lesotho are over the age of 65 – four per cent of the total population (2013). At the age of 60 a person living in Lesotho can be expected to live for an additional 15 years, on average (2013). Lesotho's old-age pension dates back to 2004. Monthly pension credits are paid at a rate of US\$4 per person (2007–12) on a pensions-tested basis.

Population over 65



HelpAge International has been working with local affiliates to provide eye care for the elderly and improve their quality of life through arranged visits, activities and programmes.

Further information

Lesotho Medical Association: www.lma.org.ls

Ministry of Health and Social Welfare: www.gov.ls

Commonwealth Health Online: www.commonwealthhealth.org/health/africa/lesotho



Malawi



KEY FACTS

Joined Commonwealth:	1964
Population:	16,363,000 (2013)
GDP p.c. growth:	1.5% p.a. 1990–2013
GNI p.c.:	US\$270 (2013)
UN HDI 2014:	World ranking 174
Life expectancy:	55 years (2013)
Under-five mortality rate (per 1,000 live births):	68 (2013)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	7% of GDP (2012)

General information

Malawi is a long, narrow south-east African country shaped by the dramatic Rift Valley, with Lake Malawi a dominant feature. It is bordered by Mozambique to the east, south and south-west; by

Zambia to the north and north-west; and by the United Republic of Tanzania to the north and north-east.

There are three regions: Northern (capital Mzuzu), Central (capital Lilongwe) and Southern (capital Blantyre).

Climate: The tropical climate is tempered by altitude and cooler on the high plateaux. There are three seasons: a cool, dry season in mid-April–August; a warm, dry season September–November; and a rainy season (receiving 90 per cent of precipitation) December–April. Most of the country is well watered, receiving 800–2,500 mm of rain, with some areas in the high plateaux receiving 3,500 mm p.a.

Environment: The most significant environmental issues are deforestation; soil degradation; and water pollution by agricultural run-off, sewage and industrial wastes.

Population: 16,363,000 (2013); Malawi is one of the most densely populated countries in Africa but, with only 16 per cent of people living in towns, one of the least urbanised. The population growth rate stood at 2.4 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 40 per 1,000 people (56 in 1970) and life expectancy was 55 years (41 in 1970).

The largest ethnic group is the Chewa, whose ancestors came from the Congo; the other main groups are Nyanja, Lomwe, Yao and Tumbuka.

Economy: Malawi is classified as a low-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Malawi was 44 deaths per 1,000 live births in 2013, with an under-five mortality rate of 68 deaths per 1,000 live births in 2013. There has been a consistent dramatic decline in the under-five mortality rate since 1990. This decline is encouraging and the under-five mortality rate has now surpassed the country's target of 82 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent known causes of death for children below the age of five years were malaria (15 per cent), acute respiratory infections (13 per cent), prematurity (12 per cent) and HIV/AIDS (12 per cent). Other contributory causes were intrapartum-related complications (11 per cent), diarrhoea (eight per cent), neonatal sepsis (seven per cent), injuries (five per cent), congenital anomalies (five per cent) and measles (one per cent). In 2013 Malawi had an adjusted maternal mortality ratio of 510 deaths per 100,000 live births (this figure was estimated at 460 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 65 per cent of all mortality in Malawi in 2012. The prevalence of HIV in Malawi, as a percentage of people aged 15–49 years, stood at

10.3 per cent in 2012. The prevalence of HIV peaked at around 16 per cent in the period 1996–2000, following which it has shown a consistent rate of decline. In 2012 there were 1,564,984 reported cases of malaria. Estimated levels of mortality from malaria have seen a small overall decrease in the period 2006–12. Both the estimated incidence of and the estimated mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis (TB) reduced by around half in the period 2000–13.

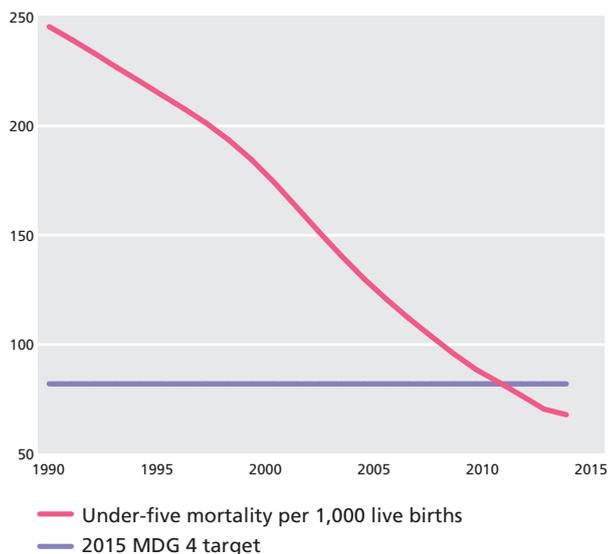
Non-communicable diseases (NCDs) accounted for an estimated 28 per cent of all mortality in 2012. The most prevalent NCDs in Malawi are cardiovascular diseases, which accounted for 12 per cent of total deaths across all age groups in 2012. Cancer, non-communicable variants of respiratory diseases and diabetes contributed five per cent, two per cent and one per cent to total mortality, respectively (2012). Injuries accounted for seven per cent of deaths in 2012.

The most commonly diagnosed mental illnesses in Malawi include depression and anxiety.

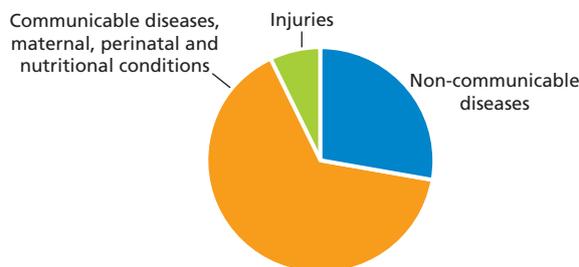
Health systems: In 2012 government expenditure on health was seven per cent of GDP, equivalent to US\$19 per capita. In the most recent survey, conducted between 1997 and 2010, there were two doctors, and 28 nurses and midwives per 100,000 people. Additionally, in 2010, 71 per cent of births were attended by qualified health staff and in 2013, 88 per cent of one-year-olds were immunised with one dose of measles. In 2012, 85 per cent of people were using an improved drinking water source and ten per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Malawi has two pharmaceutical personnel per 100,000 people.

Malawi has a three-tier health care system, based on a patient referral system. Primary care is mainly made up of community-based outreach, health posts, dispensaries, urban health centres and primary health centres. Primary level hospitals, with postnatal beds, outpatient services, maternity care and antenatal services, make up the remainder of the primary care level. Patients needing more sophisticated treatment are referred to secondary care, which is provided by the district hospitals in each of Malawi's districts. These hospitals can provide the same basic services as the primary care facilities, but also have x-ray machines, ambulances, operating theatres and laboratories. The top tier of care comes from central referral hospitals located in the major urban areas. There are two at Blantyre and Zomba (Southern region), one in Lilongwe (Central) and one in Mzimba (Northern).

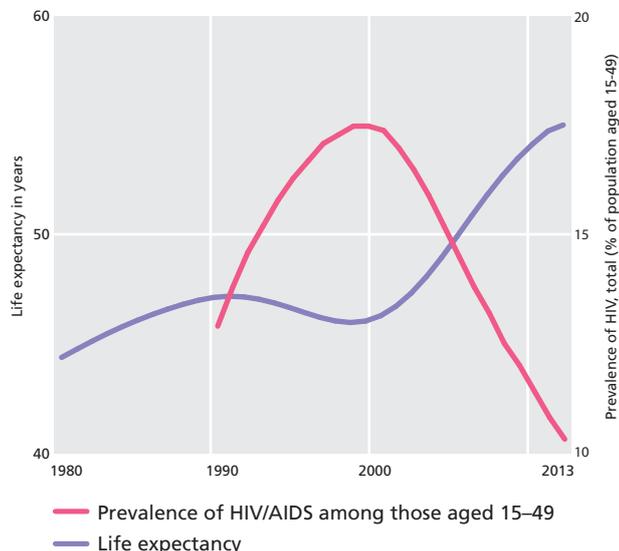
Under-five mortality



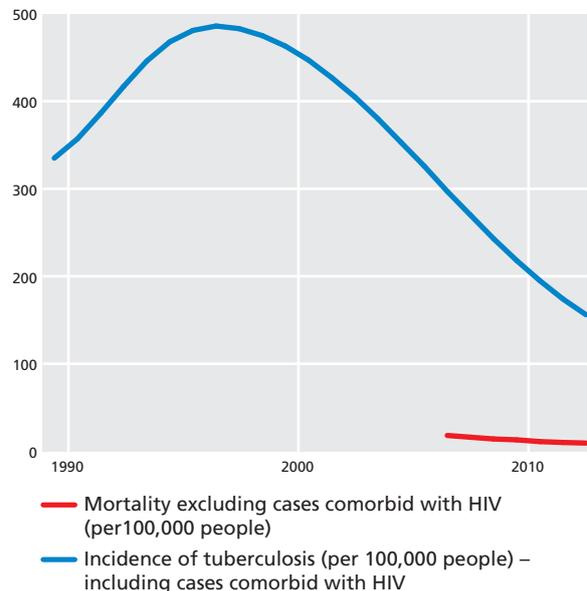
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



Malawi has many pharmaceutical companies, predominantly small and medium enterprises, based in Lilongwe and Blantyre that are involved in the importation, distribution and retailing of medicines and medical supplies. Pharmaceuticals are exempt from import duty.

Mental health legislation was most recently revised in 2005, although there is no officially approved mental health policy or act.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Malawi to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 82 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 68 deaths per 1,000 live births, meaning that Malawi has now surpassed the under-five mortality target. In 2013 the measles immunisation rate was 88 per cent, suggesting that improvements need to be made towards increasing and sustaining the measles immunisation programme if this target is to be met when the 2015 data is analysed.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Malawi, maternal mortality should fall to 275 cases per 100,000 live births. In the period 2007–11 Malawi had an adjusted maternal mortality ratio of 510 deaths per 100,000 live births (this figure was estimated at 460 deaths per 100,000 by UN agencies/World Bank in 2010). Based on the data reported by the country, this target is far from being met. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2010 this figure stood at 71 per cent, so achievement of this target is not looking realistic.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other communicable diseases. Malawi's prevalence of HIV was 10.8 per cent in 2012 (in the 15–49 age group). While this figure is very high, there has been a consistent reduction in HIV prevalence since 2000. Since 1998 there has been a significant decline in estimated incidence of and mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis, while levels of mortality from malaria have remained largely unchanged since 2001. However, occurrences of malaria hit a high of 1,564,984 in 2012, compared to 304,499 in 2011. Accordingly, while overall headway towards MDG 6 is promising, dramatic progress is still required in all of these areas if the country is to achieve MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Malawi's public spending on health was 6.2 per cent of GDP in 2011, equivalent to US\$31 per capita. Roughly a quarter of health care in Malawi (23 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 9.2 per cent of GDP in 2012, of which 77 per cent (US\$19 per capita) was covered by the government.

The underfunded and understaffed health services in Malawi are unable to meet the needs of the population, particularly outside urban areas. However, Malawi is developing a health financing strategy to help improve the funding available for health and move towards the goal of universal health coverage. Until now, the health system has been largely dependent on donor aid, which covered between 57 per cent to 62 per cent of total health expenditure between 2006 and 2009.

Public health care is generally free, but the cost of transportation can be prohibitive for many. A WHO report found that less than half of people in Malawi live within 5 km of some kind of health facility.

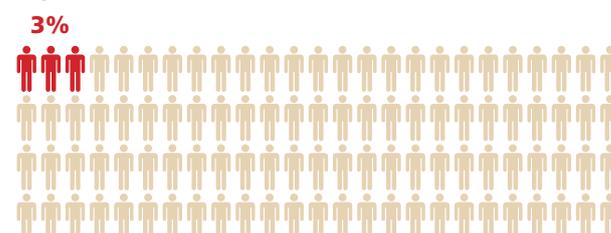
The Malawi post-2015 development agenda addresses a number of challenges, including inadequate infrastructure, a shortage of drugs, ill-trained personnel and poor access to maternal health services. Other areas that have been highlighted as standing to benefit from greater attention include the number of health surveillance assistants (HSAs) available in the country, who would be able to assist rural communities in promoting health practices, and the suggested introduction of a new cadre of health care workers to function below the levels of HSAs. These would be community-based distribution agents (CBDAs), currently found in a limited capacity in some districts working as volunteers. CBDAs should be encouraged through training and incentive packages, employed in a paid capacity and dispersed throughout the country. Reproductive health services should be universally accessible, particularly given Malawi's high rate of maternal mortality, and sexual health and counselling services should be more youth-friendly. The medicine procurement system needs to become more efficient and cost sharing should be promoted in hospitals.

Malawi was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1993 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 523,000 people in Malawi are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person living in Malawi can be expected to live for an additional 17 years, on average (2013). Overall, public pension spending is equivalent to 1.4 per cent of the country's total economic output (2012).

The government has acknowledged a need to do more for those with special needs – including the elderly – ensuring that

Population over 65



sufficient health services are delivered in friendly environments for these groups.

Traditionally, the elderly are cared for by extended family, but AIDS has seen many elderly people outlive their children. Some charities conduct home visits for the elderly and a number of old people's homes exist.

Further information

Ministry of Health: www.malawi.gov.mw

Commonwealth Health Online:

www.commonwealthhealth.org/health/africa/malawi



Malaysia



KEY FACTS

Joined Commonwealth:	1957
Population:	29,717,000 (2013)
GDP p.c. growth:	3.5% p.a. 1990–2013
GNI p.c.:	US\$10,400 (2012)
UN HDI 2014:	World ranking 62
Life expectancy:	75 years (2013)
Under-five mortality rate (per 1,000 live births):	9 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	2.2% of GDP (2012)

General information

Lying north of the equator in central South-East Asia, above Singapore and south of Thailand, Peninsular Malaysia is separated by about 540 km of the South China Sea from the Malaysian states of Sabah and Sarawak, which share the island of Borneo with Indonesia and Brunei Darussalam. Malaysian islands include Labuan, Penang and the Langkawi Islands.

The Federation of Malaysia comprises three federal territories (Kuala Lumpur, Putrajaya and Labuan) and 13 states (Sabah, Sarawak and the 11 states of Peninsular Malaysia). The peninsular states are the nine sultanates of Johor, Kedah, Kelantan, Negeri Sembilan, Pahang, Perak, Perlis, Selangor and Terengganu, plus Melaka and Penang.

Climate: Tropical, with heavy annual rainfall and high humidity.

The daily temperature range throughout Malaysia is 21–32°C. In Kuala Lumpur, April and May are the hottest months, December the coldest and April the wettest.

Environment: The most significant environmental issues are deforestation; air pollution by industrial and motor emissions; water pollution by raw sewage; and smoke or haze from Indonesian forest fires.

Population: 29,717,000 (2013); 80 per cent of people live in Peninsular Malaysia, 73 per cent in urban areas and nine per cent

in urban agglomerations of more than a million people. The population growth rate stood at 2.1 per cent p.a. between the years 1990 and 2013. In 2012 the birth rate was 18 per 1,000 people (37 in 1970) and life expectancy was 75 years (61 in 1970).

The society is multiracial with an estimated 53 per cent Malays, 25 per cent Chinese, 11 per cent indigenous peoples and ten per cent Indians. In Sarawak, the main indigenous peoples – collectively known in that state as the Dayaks – are the Iban, Bidayuh and Orang Ulu; and in Sabah, the Kadazan Dusan, Bajau, Melanau and Murut. Other ethnic groups in Malaysia include Europeans and Eurasians.

Economy: Malaysia is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Malaysia was seven deaths per 1,000 live births in 2013, with an under-five mortality rate of nine deaths per 1,000 live births in 2013. There was a consistent decline in the under-five mortality rate from 1990 to 2007; however, the period 2007–13 saw a small increase in this rate. While the slight increase in recent years is a little problematic, the overall decline since 1990 is encouraging. The under-five mortality rate remains close to the country's target of six deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent causes of death for children below the age of five years were congenital anomalies (26 per cent), prematurity (24 per cent) and intrapartum-related complications (nine per cent). Other contributory causes were acute respiratory infections (seven per cent), injuries (seven per cent), neonatal sepsis (three per cent), diarrhoea (two per cent) and HIV/AIDS (one per cent). In 2013 Malaysia had an adjusted maternal mortality ratio of 29 deaths per 100,000 live births (this figure was estimated at 29 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 73 per cent of all mortality in Malaysia in 2012. The most prevalent NCDs in Malaysia are cardiovascular diseases, which accounted for 36 per cent of total deaths across all age groups in 2012. Cancers, non-communicable variants of respiratory diseases and diabetes contribute 15 per cent, six per cent and three per cent to total mortality, respectively (2012). Injuries accounted for 11 per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions in Malaysia accounted for an estimated 16 per cent of all mortality in 2012. The prevalence of HIV in Malaysia, as a percentage of people aged 15–49 years, was 0.4 per cent in 2012, the highest figure recorded for the country since 1990. There has been an overall reduction in the number of deaths caused by malaria in the country since 2000, while levels of

confirmed cases remained roughly the same. There has been a slight overall increase in estimated incidence of tuberculosis (TB) in the period 1990–2012, while estimated mortality (when mortality data excludes cases comorbid with HIV) of the disease remained largely the same in 2007–13.

The most commonly diagnosed mental illnesses in Malaysia are anxiety, depression and stress disorders.

Health systems: In 2012 government expenditure on health was 2.2 per cent of GDP, equivalent to US\$230 per capita. In the most recent survey, conducted between 1997 and 2010, there were 120 doctors, and 328 nurses and midwives per 100,000 people. Additionally, in 2010, 99 per cent of births were attended by qualified health staff and in 2013, 95 per cent of one-year-olds were immunised with one dose of measles. In 2012 everyone was using an improved drinking water source and 96 per cent of people had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Malaysia has 43 pharmaceutical personnel per 100,000 people.

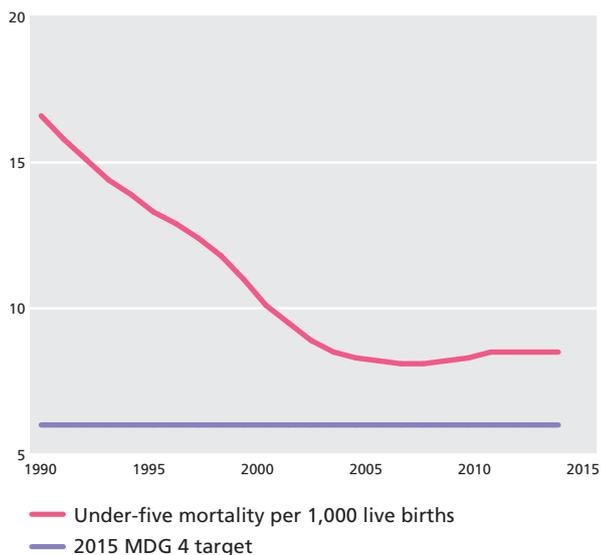
Malaysia has a well-established and efficient health sector with many public and private health care providers. The public health care programme is accessible to everyone as it is subsidised by the government and is used by the majority of the Malaysian population. As of 2010 households contributed approximately 42 per cent of spending on health, with the remaining 58 per cent contributed by the government. Notably, Malaysia is a popular destination for medical tourism. The domestic pharmaceutical industry consists of manufacturers engaged in the process of drug production, including research, development and licensing. The Malaysian Organisation of Pharmaceutical Industries is the key sector body and the National Pharmaceutical Control Bureau regulates the sector through the Drug Control Authority.

The most recent act of parliament relating to mental health in Malaysia is the Mental Health Act 2001, which was most recently revised in 2010. There are 2.6 mental health outpatient facilities and 15 beds in psychiatric hospitals per 100,000 people.

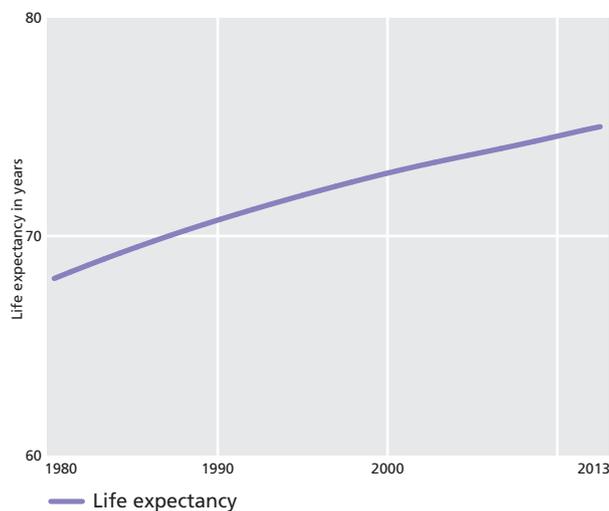
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Malaysia to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to six and increased measles immunisation to 100 per cent when the 2015 data is analysed. In

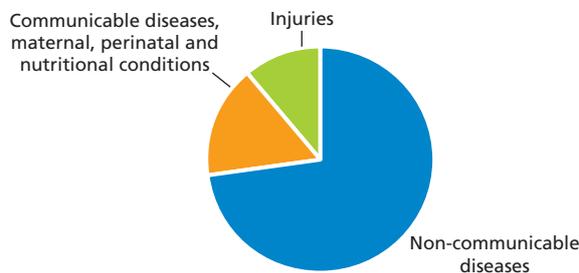
Under-five mortality



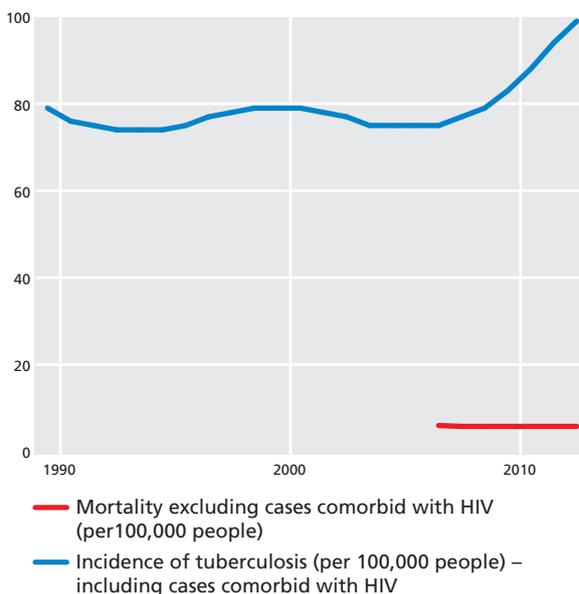
Life expectancy



Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



2013 under-five mortality stood at nine deaths per 1,000 live births and measles immunisation at 96 per cent. Given these results, Malaysia is close to achieving MDG 4 and with progress could do so by 2015.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Malaysia, maternal mortality should fall to 13 cases per 100,000 live births. In 2013 Malaysia had an adjusted maternal mortality ratio of 29 deaths per 100,000 live births (this figure was estimated at 29 deaths per 100,000 by UN agencies/World Bank in 2010). Given that this figure has remained static for three years and is more than double the target figure, this part of the goal is unlikely to be met. Part of the goal also stipulates that 100 per cent of births should be attended by a skilled health professional. In the period 2007–12 this figure stood at 99 per cent, so it is very likely that this target will be achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Malaysia's prevalence of HIV was 0.4 per cent in 2012 (in the 15–49 age group), having seen no decrease since 1990. The estimated mortality (when mortality data excludes cases comorbid with HIV) rate for tuberculosis is showing slight improvement; this is also the case for malaria. Given the decline of prevalence in these areas, Malaysia could achieve the targets set out by MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Almost half of all health care in Malaysia (45 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 3.9 per cent of GDP in 2012, of which 55 per cent (US\$230 per capita) was covered by the government.

Malaysia boasts one of the world's most sophisticated health care sectors. The public health care programme is accessible to everyone as it is subsidised by the government and is used by the majority of the Malaysian population. In general, Malaysian doctors are required to complete three years of service in public hospitals before being allowed to move into the private sphere, ensuring that there is adequate public cover for the general population.

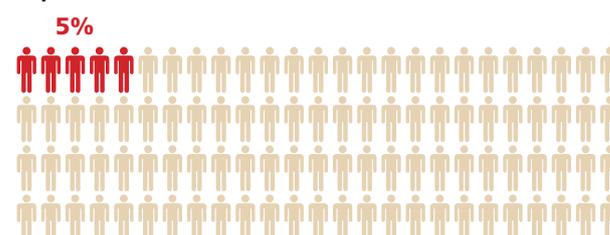
In light of improving access to health care, and ensuring universal health coverage for the country, the Tenth Malaysia Plan 2011–15 addresses several challenges and opportunities for the country's health sector. This includes increasing expectations for quality of health care; the growing pressure on the public health care system; the increasing workload in public hospitals, stretching capacity;

shifting lifestyles and demography; and advances in technology. In response to these challenges, the government of Malaysia is reforming the health care delivery system by increasing quality, capacity and coverage of the health care infrastructure; shifting towards prevention rather than treatment; and increasing the quality of human resources for health.

Malaysia is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care for the elderly: Around 1.5 million people in Malaysia are over the age of 65 – five per cent of the total population (2013). At the age of 60 a person living in Malaysia can be expected to live for an additional 19 years, on average (2013). Malaysia's Bantuan Orang Tua (elderly assistance scheme) dates back to 1982. Today, monthly pension credits are paid by the state at a rate of US\$94 per person (2007–12) on a means-tested basis. Overall, public pension spending is equivalent to 3.8 per cent of the country's total economic output (2012).

Population over 65



Traditionally, the responsibility of caring for the elderly would fall on the shoulders of their children and extended family. However, in modern times these practices are becoming less and less prevalent. With Malaysia's population ageing quickly, the question of elderly care is becoming increasingly important. Home care services have popped up across the country to cater to the ageing population. One such organisation is Love on Wheels, an elderly home care service provider that works in collaboration with the private and public sectors to provide elderly citizens with in-home, medical and personal care, and rehabilitation services. There are several private and government-run nursing homes and retirement centres.

Further information

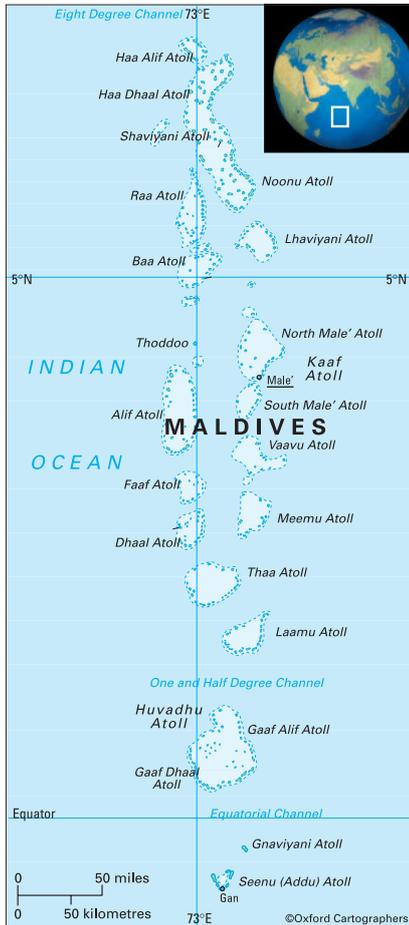
Ministry of Health: www.moh.gov.my

Commonwealth Health Online:

www.commonwealthhealth.org/health/asia/malaysia



Maldives



The archipelago is 823-km long and 130-km wide at its widest. The islands are divided into 20 administrative units, called atolls (although they do not necessarily correspond to geographical atolls). Each is known by a letter in the Maldivian alphabet in addition to its geographical name. Huvadhu Atoll, for example, is divided into two administrative units: Gaaf Alif and Gaaf Dhaal.

Climate: Maldives has a hot tropical climate. The rainy south-west monsoon season is April–October; the north-east December–March. Average annual rainfall is 1,654 mm. The temperature range is 25–30°C, but generally stays around the average 27°C. Gales occur during the monsoon. In May 1991 abnormal tidal waters caused great damage through the archipelago.

Environment: The most significant issues are: depletion of freshwater aquifers threatening water supplies; global warming and sea level rise; and coral reef bleaching.

Population: 345,000 (2013); 43 per cent of people live in urban areas, mostly in Malé, which, in the mid-1990s, doubled in area thanks to land reclamation. The population growth rate stood at two per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 22 per 1,000 people (40 in 1970) and life expectancy was 78 years (50 in 1970).

Economy: Maldives is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Maldives was eight deaths per 1,000 live births in 2013, with an under-five mortality rate of ten deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1990. This decline is impressive and has seen the country exceed its target of 31 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the most prominent causes of death for children below the age of five years were congenital anomalies (30 per cent) and prematurity (24 per cent). Other contributory causes were acute respiratory infections (eight per cent), intrapartum-related complications (eight per cent), injuries (five per cent), neonatal sepsis (four per cent) and diarrhoea (two per cent). In 2013 Maldives had an adjusted maternal mortality ratio of 31 deaths per 100,000 live births (this figure was estimated at 60 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) in Maldives accounted for an estimated 81 per cent of all mortality in 2012. The most prevalent NCDs in Maldives are cardiovascular diseases, which accounted for 39 per cent of total deaths across all age groups in 2012. Cancer, non-communicable variants of respiratory diseases and diabetes contributed 12 per cent, ten per cent and two per cent to total mortality, respectively (2012). Injuries accounted for seven per cent of deaths in 2012.

KEY FACTS

Joined Commonwealth:	1982
Population:	345,000 (2013)
GDP p.c. growth:	5.8% p.a. 1990–2011
GNI p.c.:	US\$5,600 (2013)
UN HDI 2014:	World ranking 103
Life expectancy:	78 years (2013)
Under-five mortality rate (per 1,000 live births):	10 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	3.9% of GDP (2012)

General information

The Republic of Maldives lies in the Indian Ocean, some 670 km west-south-west of Sri Lanka. The 1,190 coral islands, 200 of which are inhabited, occur on a double chain of 26 coral atolls.

Both the obesity rate and the prevalence of low physical activity levels across the population are among the highest in the WHO South-East Asia Region. Furthermore, more than half of the adult population has high cholesterol and more than a third of adult men are daily tobacco smokers. In the most recent Maldives Health Master Plan, which spans the period 2006–15, the government acknowledged NCDs as one of the top health priorities. In January 2013 the Ban of Smoking in Public Places regulation was implemented – it is the first tobacco control regulation in the country, showing that steps are being taken by the government to tackle the unhealthy lifestyles that can contribute to the rise of NCDs.

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 12 per cent of all mortality in Maldives in 2012. Prevalence of HIV among people aged 15–49 is 0.1 per cent (2012). Maldives eliminated malaria over the period 1973–99. The estimated incidence of tuberculosis (TB) saw a significant decline in the period 1990–2012, when it dropped by two-thirds, although estimated mortality (when

mortality data excludes cases comorbid with HIV) remained more or less the same overall in the period 2007–13.

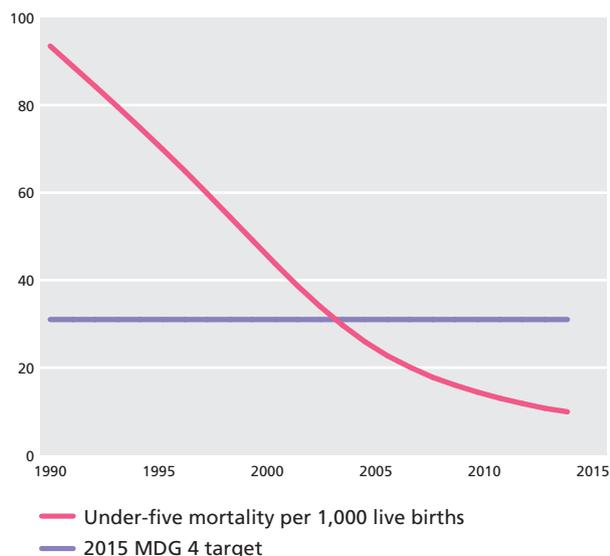
There is little data concerning the most commonly diagnosed mental illnesses in Maldives.

Health systems: In the most recent survey, conducted between 1997 and 2010, there were 142 doctors, and 504 nurses and midwives per 100,000 people. Additionally, in 2011, 99 per cent of births were attended by qualified health staff and in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2012, 99 per cent of people were using an improved drinking water source and 99 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Maldives has 82 pharmaceutical personnel per 100,000 people.

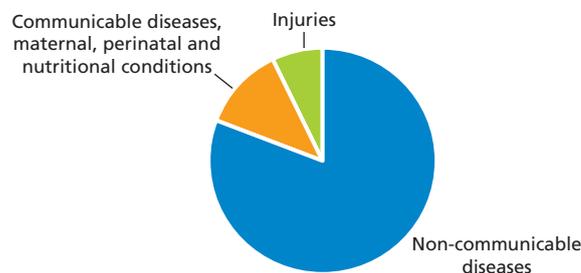
The Ministry of Health provides comprehensive public health services, including primary, preventive and curative care services.

There is only one tertiary facility, which is located in Malé. There are a number of regional hospitals, 13 atoll hospitals, 87 health centres, 51 family health sections and 37 health posts in Maldives. The reorganisation of the health system, with the introduction of atoll hospitals and placement of doctors at health centres, has enabled increased access to medical services for the island communities.

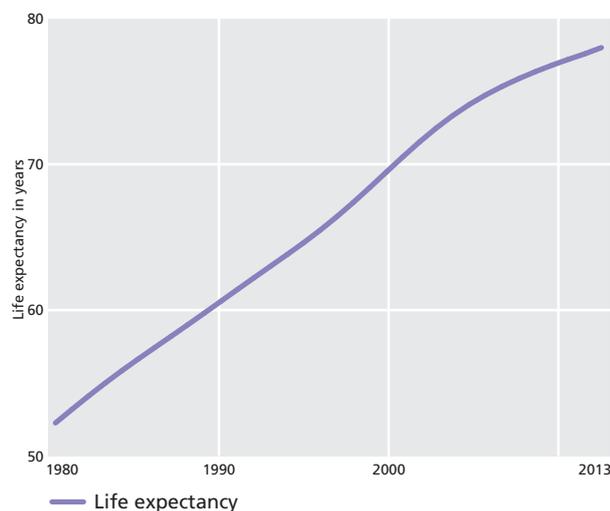
Under-five mortality



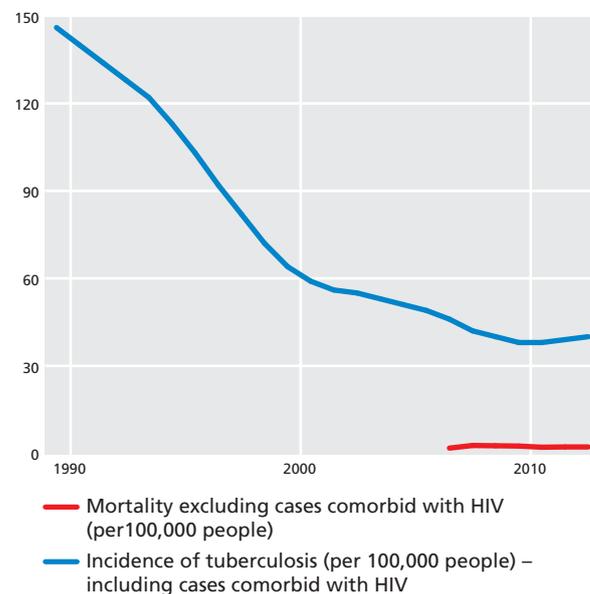
Mortality by cause of death (% of all deaths), 2012



Life expectancy



Tuberculosis: Incidence and mortality



All pharmaceutical products in Maldives are imported, mostly by the private sector. Apart from a specific category of hospital drugs and controlled drugs, all drugs must be bought by patients at private pharmacists.

There is no mental health act or plan and mental health is not mentioned in general health policy.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Maldives to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 31 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at ten deaths per 1,000 live births and measles immunisation at 99 per cent, so the country has already surpassed its under-five mortality target and is on track to increase immunisation to 100 per cent when the 2015 data is analysed. Consequently, it is very likely to achieve MDG 4.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Maldives, maternal mortality should fall to 208 cases per 100,000 live births. In 2013 Maldives had an adjusted maternal mortality ratio of 31 deaths per 100,000 live births (this figure was estimated at 60 deaths per 100,000 by UN agencies/World Bank in 2010) so this target has already been surpassed. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2013 this figure stood at 99 per cent, so this target is likely to be achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Prevalence rates of major communicable diseases, such as malaria, HIV/AIDS and tuberculosis, are low or declining. Accordingly, with continued progress, the country is likely to achieve MDG 6.

The 2013 World Health Organization (WHO) country co-operation strategy for Maldives reported that the country has largely achieved all the health-related MDGs ahead of the 2015 deadline.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than half of all health care in Maldives (45 per cent) was government funded in 2012. The remaining 55 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 8.5 per cent of GDP in 2012. Expenditure by government amounts to US\$253 per capita.

Health care in the Maldives has improved drastically in the last few decades, due to improved coverage in the islands and the introduction of free treatment. All Maldivians are covered under a universal health insurance scheme financed by the government, which provides free medical care. The Maldives Demographic Health Survey 2009 found that 93 per cent of children aged

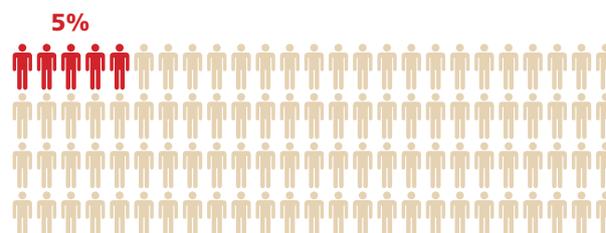
between 12 and 23 months had received all recommended immunisations.

The delivery of services is challenging on the most remote islands. The government has decided that it is not cost effective to have hospitals or health centres on every island as the population sometimes numbers only a few hundred. Consequently, it has had to improve public transport between islands in order to ensure effective provision of these services, incurring high operational costs. Accordingly, providing health care services to the islands – in terms of increased facilities and improved transport – has almost doubled the cost of health services delivery.

Maldives was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 2006 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 17,000 people in Maldives are over the age of 65 – five per cent of the total population (2013). At the age of 60 a person living in Maldives can be expected to live for an additional 21 years, on average (2013). Maldives' Old-Age Basic Pension system dates back to 2010. Today, monthly pension credits are paid by the state at a rate of US\$130 per person (2007–12) on a pensions-tested basis. Overall, public pension spending is equivalent to 0.2 per cent of the country's total economic output (2012).

Population over 65



The Ministry of Health is the government agency responsible for the elderly in Maldives. All Maldivians over the age of 65 have insurance coverage for medical care in hospitals, and medical and pharmaceutical benefits through the government-administered Madhana Health Insurance programme. Many families also care for older relatives and there are several programmes and support systems in place for the elderly from non-governmental organisations. Limited opportunities for residential care for the elderly are available at the Home for People with Special Needs, the only psychiatric facility in the Maldives.

Further information

Ministry of Health: www.health.gov.mv

Commonwealth Health Online: www.commonwealthhealth.org/health/asia/maldives



KEY FACTS

Joined Commonwealth:	1964
Population:	429,000 (2013)
GDP p.c. growth:	2.4% p.a. 1990–2013
GNI p.c.:	US\$20,980 (2013)
UN HDI 2014:	World ranking 39
Life expectancy:	80 years (2013)
Under-five mortality rate (per 1,000 live births):	6 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	6% of GDP (2012)

General information

The Republic of Malta comprises an archipelago of six islands and islets in the middle of the Mediterranean Sea, 93 km south of Sicily and 290 km from the coast of North Africa. Malta, Gozo and Comino are inhabited; the other islands are Cominotto, Filfla and St Paul's Island.

Climate: Mediterranean type: hot and dry in July–September, with cooling sea breezes. Winters are mild and wet, with warm westerly winds.

Environment: There are very limited natural freshwater resources and increasing reliance on desalination.

Population: 429,000 (2013); population density is among the world's highest. Some 30,000 people reside on Gozo and Comino, and 95 per cent of people live in urban areas. The population growth rate stood at 0.6 per cent p.a. between the years of 1990

and 2012. In 2012 the birth rate was nine per 1,000 people (17 in 1970) and life expectancy 80 years (70 in 1970). There are no significant ethnic minorities.

Economy: Malta is classified as a high-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in Malta was five deaths per 1,000 live births in 2013, with an under-five mortality rate of six deaths per 1,000 live births in 2013 – down from 11 deaths in 1990. In 2012 the two most prominent causes of death for children below the age of five years were congenital anomalies (45 per cent) and prematurity (27 per cent). In 2013 Malta's adjusted maternal mortality ratio was nine deaths per 100,000 live births (an estimate from UN agencies/World Bank).

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 92 per cent of all mortality in Malta in 2012. The most prevalent NCDs in Malta are cardiovascular diseases, which accounted for 39 per cent of total deaths across all age groups in 2012, and cancer, accounting for 31 per cent of all deaths. Non-communicable variants of respiratory diseases and diabetes contributed four per cent and two per cent to total mortality, respectively (2012). Injuries accounted for four per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions in Malta accounted for an estimated four per cent of all mortality in 2012. A government paper on HIV/AIDS reported that there were an estimated 300 people living in the country with HIV in 2013. The World Health Organization (WHO) considers Malta a non-endemic country for malaria. The estimated incidence of tuberculosis (TB) has increased significantly overall in the period 1990–2013, with significant fluctuation in rates over this period. Estimated mortality from TB (when mortality data excludes cases comorbid with HIV) has remained below one death per 100,000 people since 1991.

Health systems: In 2012 government expenditure on health was six per cent of GDP, equivalent to US\$350 per capita. In the most recent survey, conducted between 1997 and 2012, there were 350 medical doctors, and 709 nurses and midwives per 100,000 people. There is universal maternal health care in Malta. Additionally, in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2012, everyone was using an improved drinking water source and had adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Malta has 80 pharmaceutical personnel per 100,000 people.

Health care in Malta is a combination of both private and statutory systems, with care in the public sector highly centralised and regulated with a governmental focus on quality of care. Publicly

funded primary health care is delivered through eight health centres – seven in Malta and one in Gozo – supplemented by a further 42 clinics around the country. The health centres are staffed by nurses and GPs, and offer services such as antenatal and postnatal clinics, well baby clinics, diabetes clinics, ophthalmic clinics, podiatry and psychiatric clinics. Most pharmacies offer a GP service at specified times, but patients usually pay to use this. There are five public hospitals – two are acute hospitals and three are specialised hospitals; there are also a number of private hospitals and clinics. The main hospital in Malta is the Mater Dei Hospital – one of the largest medical buildings in Europe.

A rise in the take up of private health care has led to an increase of private health care clinics and hospitals in Malta. Private health services can either be paid for through insurance or on a pay-as-you-go basis. Large employers sometimes contract private doctors to tend the needs of their employees. Most state-employed GPs also work in private practice.

All residents have access to preventive, investigative, curative and rehabilitation services in public health centres and hospitals; those with chronic conditions get free pharmaceuticals. The Ministry of

Health, Elderly and Community Care is responsible for all health services, including policy and planning, health promotion and primary care.

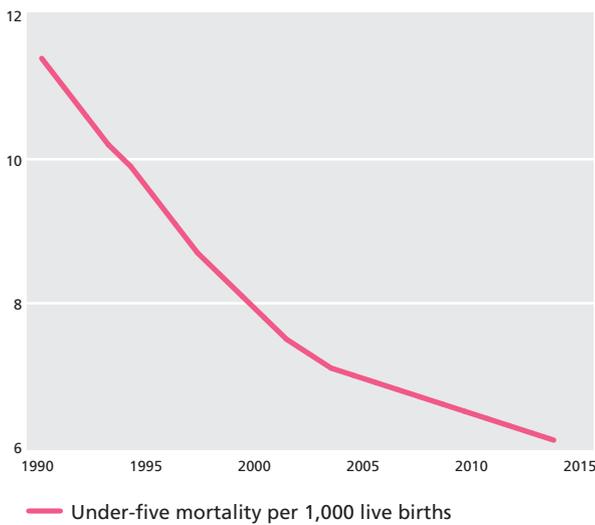
Malta has developed a solid regulatory infrastructure for the pharmaceutical sector through the autonomous Medicines Authority and, in pursuit of the country's aim to become a destination for health tourism, the government has implemented various policies to attract growth in the pharmaceutical industry.

The Roche-Bolar Exemption, for example, was established by the government to allow Maltese companies to develop generic drugs in advance of patent expiry to speed up access to the market. These policies have attracted large multinationals to operate in the country.

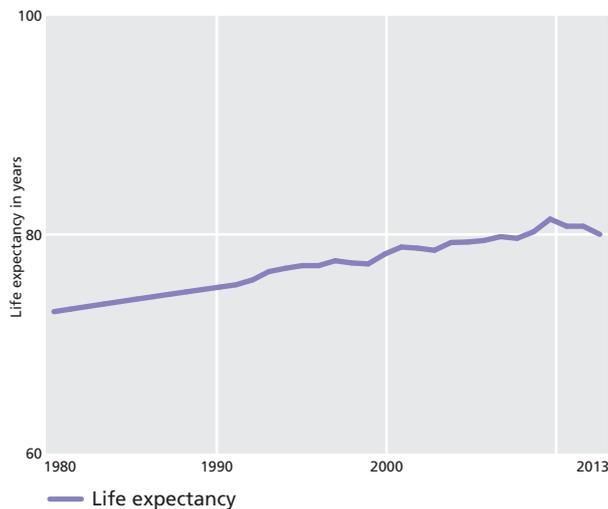
Main health concerns and plans for remedial action: Malta has a life expectancy of 80 years, up from 75 years in 1990 and 78 years in 2000. Gains have been primarily due to reduced child and maternal mortality, and improved longevity for other age groups, particularly for older people with chronic diseases.

Non-communicable diseases are Malta's biggest health issue. Bronchial asthma is a particular health concern – its high prevalence is partly explained by the hot and humid climate, genetic disposition and high smoking rates. The Ministry of Health, Elderly and Community Care has introduced policies focused on raising awareness of the health risks associated with smoking,

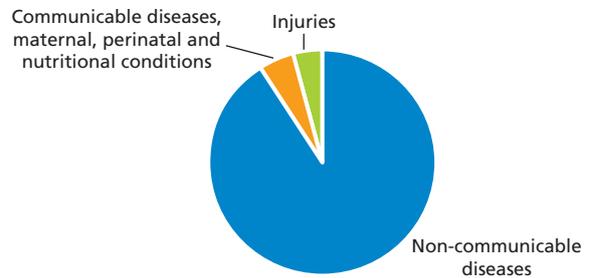
Under-five mortality



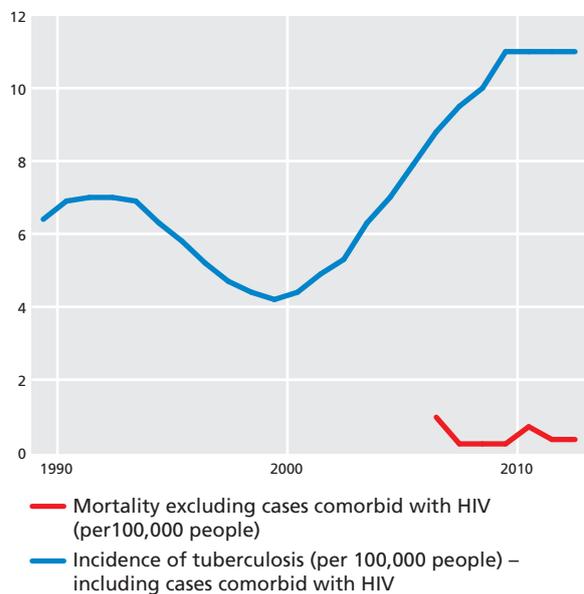
Life expectancy



Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



especially among women. Malta ratified the WHO Framework Convention on Tobacco Control in 2003 and the amended Smoking in Public Places Regulation came into force in 2004.

The rate of childhood obesity is one of the highest in the world.

Current policy documents that focus on health promotion and primary prevention include the Non-Communicable Disease Strategy 2010, the National Cancer Plan 2011, the Sexual Health Strategy 2011, the Healthy Weight for Life Strategy 2012, the Tuberculosis Prevention Strategy 2012 and a strategy aimed at addressing the needs of dementia sufferers, together with their families and carers. Most of these strategy documents are target based, with impact assessments being prepared. Malta's accession to the EU in 2004 was instrumental in driving policy on new legislation on health.

A new Mental Health Act, promoting the rights of mental health patients and encouraging community treatment schemes, came into effect in 2013. A general Health Act was also approved by the Maltese parliament in 2013, creating a modern framework to separate policy from regulation and operations. Its focus on disease prevention and community services has led to the launch of Malta's first cancer screening programmes.

For definitions and sources see page 314.

Universal health coverage

In 2010 Malta's public spending on health was six per cent of GDP, equivalent to US\$1,697 per capita.

Roughly a third of health care in Malta (34 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 9.1 per cent of GDP in 2012, of which 66 per cent (US\$350 per capita) was covered by the government.

When Malta gained independence from the UK in 1964, it retained a health system modelled loosely on Britain's National Health Service. Public health care is funded through taxation – all residents can get free health care in public health centres, clinics and hospitals. Virtually the only treatments that are not always covered are in vitro fertilisation and some cosmetic surgery. A WHO report in 2000 ranked Malta fifth in the world for its health system, beating the UK, France and the USA.

For specialised treatment that is beyond the scope of Malta's hospitals, there is an agreement with the UK that allows Maltese nationals to be treated in Britain.

Women aged 50–59 in Malta and Gozo are invited to receive free breast screening every three years. Free immunisation is available for children, employees at risk of contracting TB or hepatitis and TB.

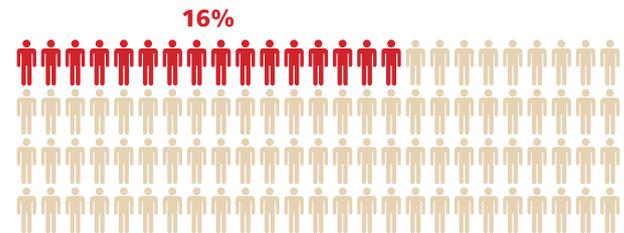
Malta has signed and ratified the International Covenant on Economic, Social and Cultural Rights, which includes 'the right of everyone to the enjoyment of the highest attainable standard of

physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 70,000 people in Malta are over the age of 65 – 22 per cent of the total population (2013). At the age of 60 a person living in Malta can be expected to live for an additional 22 years, on average (2013). Malta's Age Pension system dates back to 1956. Today, monthly pension credits are paid by the state at a rate of US\$586 per person (2007–12) on a means-tested basis. Overall, public pension spending is equivalent to nine per cent of the country's total economic output (2010).

Malta has a hospital dedicated to the elderly. St Vincent De Paul Residence serves as both a nursing home and a geriatric hospital with a total population of more than 1,100 residents. Living facilities are publicly funded, with residents contributing 80 per cent of their retirement pension or 60 per cent of other income.

Population over 65



There are also a number of smaller public and private old people's homes in Malta. The National Minimum Standards for Care Homes for Older People stipulate the minimum requirements for a facility to operate a care home. The Elderly Care Department in St Venera provides a range of services for older adults living either in state-owned residences or in their own homes, ranging from meals on wheels to home care support.

The National Dementia Strategy is a comprehensive strategic framework aimed at delivering quality improvements in dementia services and addressing local shortfalls in dementia care. Its objective is to study, advise, and recommend the planning and development of services to provide high-quality care for individuals with dementia in the Maltese islands.

A national colorectal cancer-screening programme was launched in 2012 for people over 60.

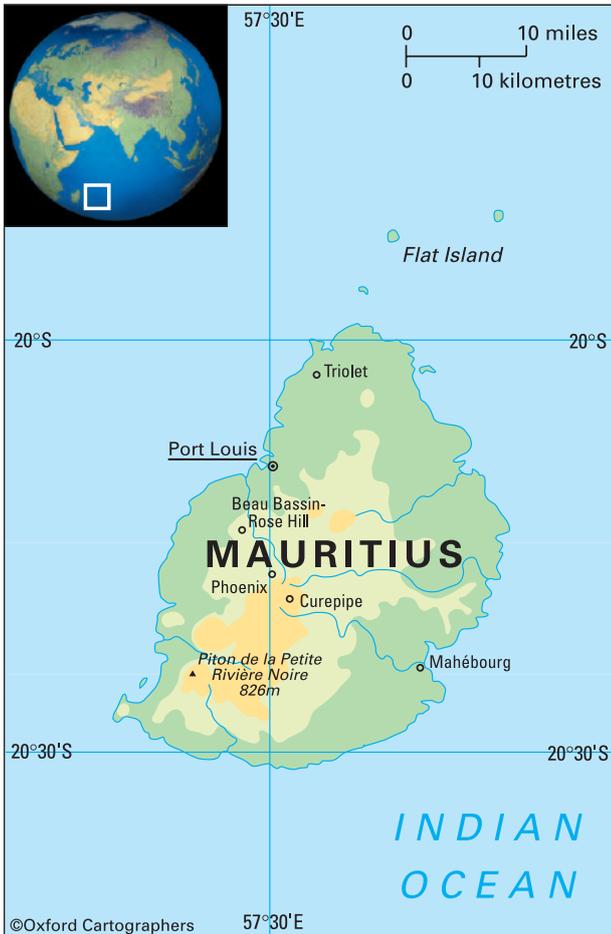
Further information

Ministry of Health, Elderly and Community Care:
www.ehealth.gov.mt

Commonwealth Health Online:
www.commonwealthhealth.org/health/europe/malta



Mauritius



KEY FACTS

Joined Commonwealth:	1968
Population:	1,244,000 (2013)
GDP p.c. growth:	3.5% p.a. 1990–2013
GNI p.c.:	US\$9,300 (2013)
UN HDI 2014:	World ranking 63
Life expectancy:	74 years (2012)
Under-five mortality rate (per 1,000 live births):	14 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	2.4% of GDP (2012)

General information

The Republic of Mauritius, an island country in the Indian Ocean, lies east of Madagascar and the south-east African coast. Its nearest neighbour is the French island of Réunion. The Constitution

of Mauritius provides that Mauritius includes the islands of Mauritius, Rodrigues, Agalega, Tromelin, Cargados Carajos and the Chagos Archipelago, including Diego Garcia and any other island comprised in the State of Mauritius. Mauritius has always maintained that it has sovereignty over the Chagos Archipelago but has not been able so far to exercise its sovereignty.

Climate: The climate is maritime subtropical, with south-east trade winds blowing for much of the year. Summer, the rainy season, is November–April and winter, June–September. Rainfall ranges from 80 mm in October to 310 mm in February. Heavy rains fall mainly from late December to the beginning of April. Cyclones, occurring in the summer, occasionally do severe damage.

Environment: The most significant issues are water pollution and degradation of coral reefs.

Population: 1,244,000 (2012); 40 per cent of people live in urban areas. The population growth rate stood at 0.7 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 11 per 1,000 people (28 in 1970) and life expectancy was 74 years (62 in 1970). About 68 per cent of the population is of Indian descent, 27 per cent Creole and the remainder largely of Chinese or French descent.

Economy: Mauritius is classified and as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Mauritius was 13 deaths per 1,000 live births in 2013, with an under-five mortality rate of 14 deaths per 1,000 live births in 2013. There has been an overall decline in the under-five mortality rate since 1990. Although this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of eight deaths per 1,000 live births as defined by the 2015 Millennium Development Goals. In 2010 the two most prominent known causes of death for children below the age of five years were congenital anomalies (29 per cent) and prematurity (27 per cent). Other contributory causes were acute respiratory infections (ten per cent), neonatal sepsis (seven per cent), injuries (seven per cent), intrapartum-related complications (five per cent) and diarrhoea (one per cent). In 2013 Mauritius had an adjusted maternal mortality ratio of 73 deaths per 100,000 live births, estimated upwards from the 22 deaths per 100,000 that were reported.

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 86 per cent of all mortality in Mauritius in 2012. The most prevalent NCDs in Mauritius are cardiovascular diseases, which accounted for 31 per cent of total deaths across all age groups in 2012. Diabetes, cancer and non-communicable variants of respiratory diseases contributed 26 per cent, 12 per cent and five per cent to total mortality, respectively (2012). Injuries accounted for six per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions in Mauritius accounted for an estimated eight per cent of all mortality in 2012. The prevalence of HIV in Mauritius, as a percentage of people aged 15–49 years, stood at 1.1 per cent in 2012 – this has remained largely consistent since 2002. Mauritius is a non-endemic country for malaria. The estimated incidence of tuberculosis (TB) has seen a slight decrease in the period 1990–2013, while mortality (when mortality data excludes cases comorbid with HIV) from the disease has shown little change in the period 2007–13.

The most commonly diagnosed mental illnesses in Mauritius are psychosis and alcohol-related conditions, followed by substance abuse-related complaints and depression.

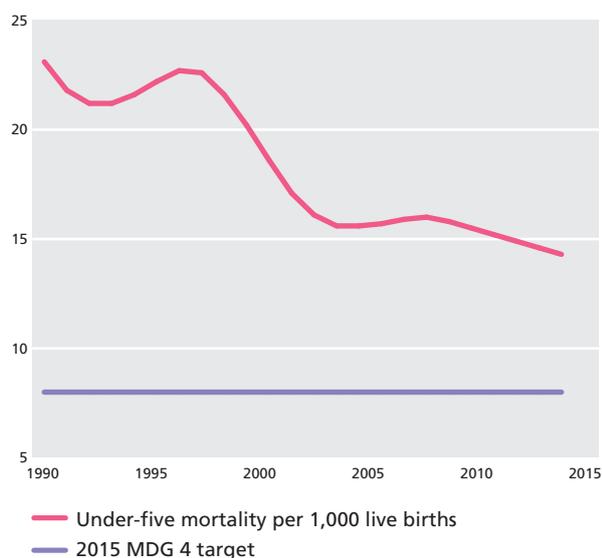
Health systems: In 2012 government expenditure on health was 2.4 per cent of GDP, equivalent to US\$217 per capita. In the most recent survey, conducted between 1997 and 2010, there were 11 doctors, and 373 nurses and midwives per 100,000 people.

Additionally, in 2010, 100 per cent of births were attended by qualified health staff and in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2012 everyone was using an improved drinking water source and 91 per cent of people had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Mauritius has 116 pharmaceutical personnel per 100,000 people.

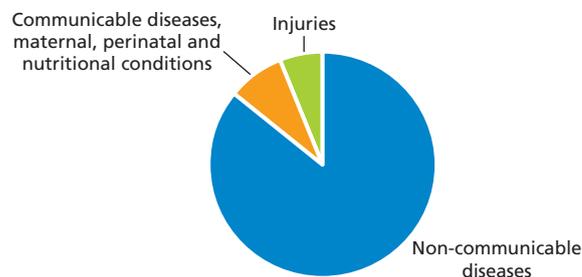
Medical care standards in Mauritius are high and there are several private clinics in addition to the public health system. The main hospitals in Mauritius are the A. G. Jeetoo Hospital in Port Louis, Sir Seewoosagur Ramgoolam National Hospital in Pamplemousses, Victoria Hospital in Quatre Bornes and Candos in the district of Plaine-Wilhems. There are also various private clinics that provide medical services. In a joint venture with British American Investment Co, the Apollo Hospitals Group – Asia’s largest health care group – set up the Apollo Bramwell Hospital, a multi-speciality hospital, in Moka in 2009. The Mauritius Institute of Health organises the training of health personnel and carries out health systems research. There are currently two local companies that manufacture pharmaceutical products in Mauritius. The Pharmacy Board, under the regulation of the Pharmacy Act 1983, is responsible for regulating pharmaceutical practices.

The most recent act of parliament relating to mental health in Mauritius is the Mental Health Care Act 1998.

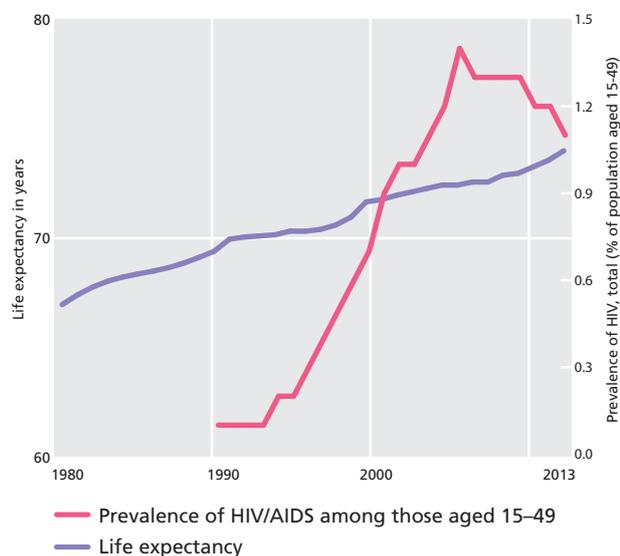
Under-five mortality



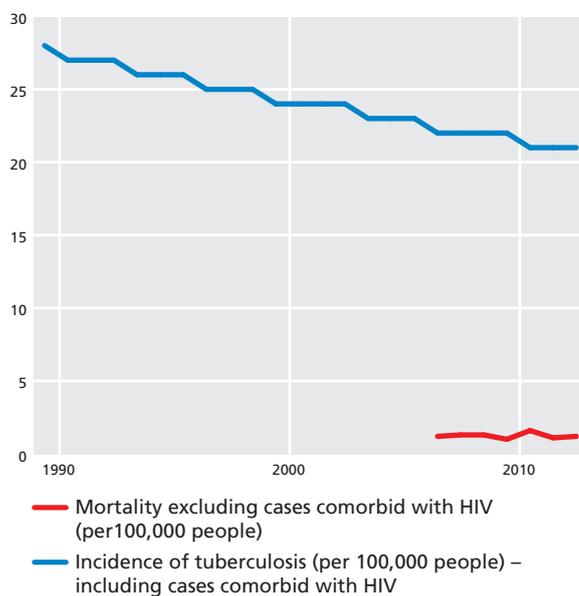
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Mauritius to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to eight and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 14 deaths per 1,000 live births and measles immunisation at 99 per cent. It is possible, therefore, that the under-five mortality target will be achieved when the 2015 data is analysed and the measles immunisation target is likely to be achieved.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Mauritius, the maternal mortality should fall to 17 cases per 100,000 live births. In 2013 Mauritius had an adjusted maternal mortality ratio of 22 deaths per 100,000 live births, adjusted to 73 (this figure was estimated at 60 deaths per 100,000 by UN agencies/World Bank in 2010). Based on the data reported by the country it is unlikely to have achieved this goal when the data is analysed in 2015. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2010 this figure stood at 100 per cent, so this part of the goal has already been achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. There has been no overall decline or increase in the prevalence of HIV in the period 2008–11, but the decline in the incidence of tuberculosis in the period 1990–2010 has been consistent. Nevertheless, significant reduction in prevalence and mortality of these diseases is required if the country is to achieve MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than half of health care in Mauritius (49 per cent) was government funded in 2012. The remaining 51 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 4.8 per cent of GDP in 2012. Expenditure by government amounts to US\$217 per capita.

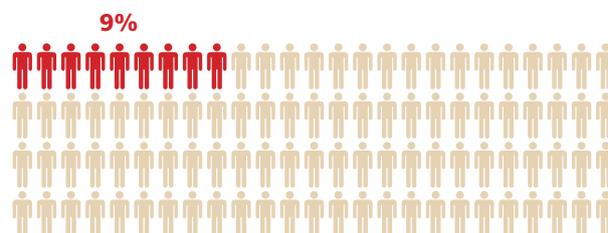
The government has committed to keeping health care services free of any user cost at the point of delivery. The pursuit of primary health care policy in Mauritius strives to achieve equitable distribution of health resources and support services to the community. This package is delivered through a network of institutions providing preventive, curative and rehabilitative care. Mauritius has an established welfare system with the state as both financier and provider of clinical and non-clinical treatment in the public health sector.

The Post-2015 UN Development Agenda – The Future We Want national report on Mauritius highlights several issues that need to be addressed in the country's post-2015 development strategy. These are: the prevention and treatment of non-communicable diseases; further reduction of child and maternal mortality; reinforcement of the fight against HIV/AIDS; and greater attention to mental health issues. The report also suggests that those issues highlighted under the MDGs should be combined and approached as an overarching aim of 'universal health coverage', in a bid to reduce health inequities.

Mauritius was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1973 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 108,000 people in Mauritius are over the age of 65 – nine per cent of the total population (2013). At the age of 60 a person in Mauritius can be expected to live for an additional 19 years, on average (2013). Mauritius' Basic Retirement Pension dates back to 1950 and became universal in 1958. Today, monthly pension credits are paid by the state at a rate of US\$118 per person (2007–12) on a universal basis. Overall, public pension spending is equivalent to 6.7 per cent of the country's total economic output (2011).

Population over 65



Mauritius's Protection of Elderly Persons Act 2005 was established to ensure that adequate protection is provided to elderly people against ill treatment and financial prejudice. Retired people are also entitled to free travel on public transport and there is social assistance available, including income support, free wheelchairs, hearing aids, dentures and eyeglasses. All health points have geriatric sessions. There are day care centres for those who require assistance during the day and there are a number of old people's homes.

Further information

Ministry of Health and Quality of Life: health.govmu.org

Commonwealth Health Online: www.commonwealthhealth.org/health/africa/mauritius



Mozambique



KEY FACTS

Joined Commonwealth:	1995
Population:	25,834,000 (2013)
GDP p.c. growth:	3.7% p.a. 1990–2013
GNI p.c.:	US\$590 (2013)
UN HDI 2014:	World ranking 178
Life expectancy:	50 years (2013)
Under-five mortality rate (per 1,000 live births):	87 (2013)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	2.8% of GDP (2012)

General information

Mozambique is in south-east Africa and borders (anti-clockwise, from north) the United Republic of Tanzania, Malawi, Zambia, Zimbabwe, South Africa, Swaziland and the Indian Ocean.

The country is divided into 11 provinces (from south to north): Maputo, Maputo city, Gaza, Inhambane, Manica, Sofala, Zambézia, Tete, Nampula, Niassa and Cabo Delgado.

Climate: Tropical and subtropical. Inland is cooler than the coast and rainfall higher as the land rises. The hottest and wettest season is October–March. During April–September the coast has warm, mainly dry weather, tempered by sea breezes. The country is vulnerable to cyclones.

Environment: The most significant environmental issues are desertification, pollution of surface and coastal waters, and persistent migration of people from the hinterland to urban and coastal areas.

Population: 25,834,000 (2013); 32 per cent of people live in urban areas and four per cent in urban agglomerations of more than a million people. The population growth rate stood at 2.8 per cent p.a. between the years 1990 and 2013. In 2013 the birth rate was 39 per 1,000 people (48 in 1970) and life expectancy was 50 years (39 in 1970 and 43 in 1990).

Ethnic groups include Makua-Lomwe in the north, Makonde in the far north, Thonga in the southern lowlands, Chopi and Thonga in the Inhambane coastal province, and Shona mainly in the central Manica and Sofala provinces.

Economy: Mozambique is classified as a low-income economy by the World Bank.

Health

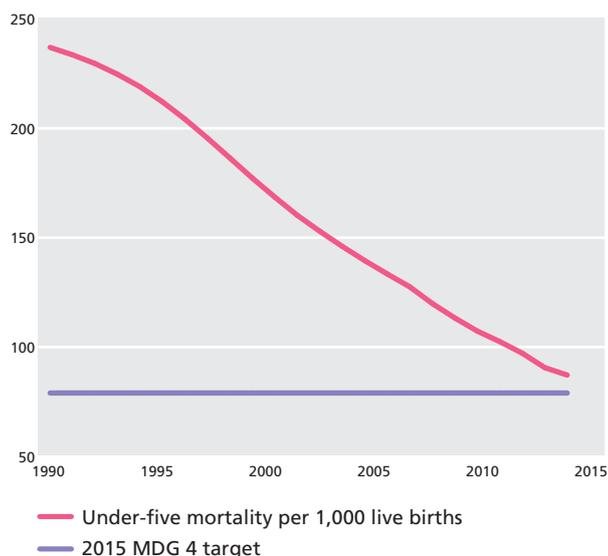
Child and maternal health: Infant mortality in Mozambique was 62 deaths per 1,000 live births in 2013, with an under-five mortality rate of 87 deaths per 1,000 live births in 2013. The under-five mortality rate in Mozambique has declined steadily since 1990. However, it has not yet reached the country's target of 79 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2012 the most prominent cause of death for children below the age of five years was malaria, which accounted for 18 per cent of deaths. Other contributory causes to under-five mortality were acute respiratory infections (14 per cent), prematurity (12 per cent) intrapartum-related complications (11 per cent), diarrhoea (nine per cent), neonatal sepsis (six per cent), HIV/AIDS (six per cent), injuries (five per cent) and congenital anomalies (four per cent). In 2013 Mozambique had an adjusted maternal mortality ratio of 430 deaths per 100,000 live births (this figure was estimated at 490 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions in Mozambique accounted for an estimated 66 per cent of all mortality in 2012. The prevalence of HIV in Mozambique, as a percentage of people aged 15–49 years, was 10.8 per cent in 2012. The HIV prevalence rate in

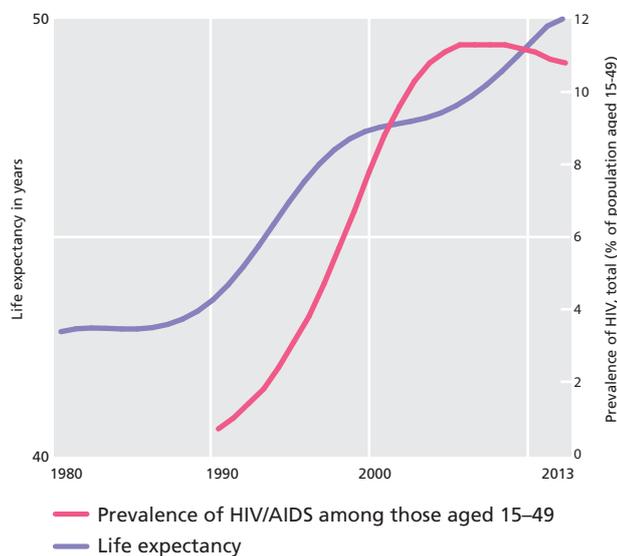
Mozambique has significantly increased overall since 1990; however, the country has experienced a slight reduction per year since 2009. There were 1,813,984 reported cases of malaria in 2012. Although the number of confirmed cases of malaria rose between 2007 and 2012, the numbers of deaths from malaria saw a gradual and consistent decline over the same time period. There has been a gradual rise in estimated incidence of tuberculosis (TB) in the period 1990–2013 and estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease has also seen an overall increase in this time.

Non-communicable diseases (NCDs) accounted for an estimated 23 per cent of all mortality in Mozambique in 2012. The most prevalent NCDs in Mozambique are cardiovascular diseases, which accounted for seven per cent of total deaths across all age groups in 2012. Cancers, non-communicable variants of respiratory diseases and diabetes contributed four per cent, two per cent and one per cent to total mortality, respectively (2012). Injuries accounted for 11 per cent of deaths in 2012.

Under-five mortality



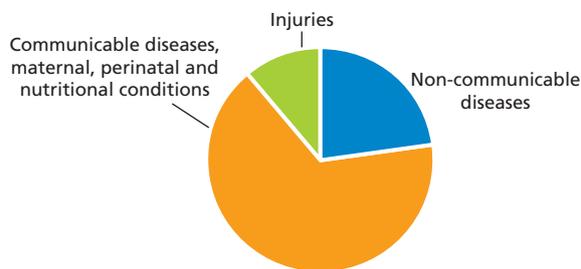
Life expectancy and HIV/AIDS



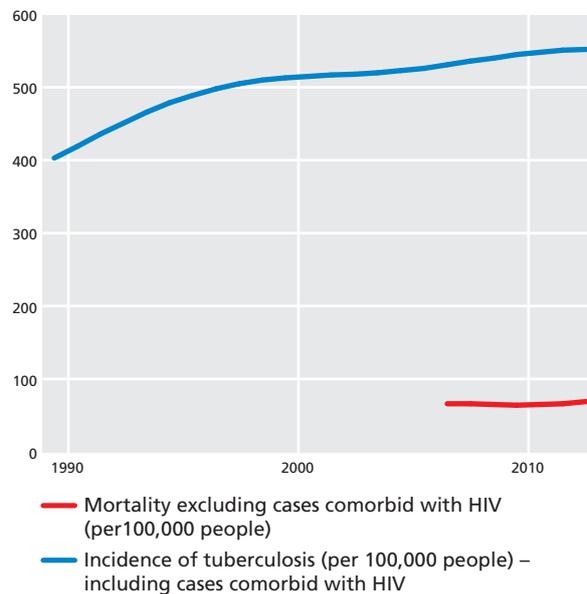
Health systems: In 2012 government expenditure on health was 2.8 per cent of GDP, equivalent to US\$17 per capita. In the most recent survey, conducted between 1997 and 2010, there were four doctors, and 41 nurses and midwives per 100,000 people. Additionally, in 2011, 54 per cent of births were attended by qualified health staff and in 2013, 85 per cent of one-year-olds were immunised with one dose of measles. In 2012, 49 per cent of people were using an improved drinking water source and 21 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Mozambique has four pharmaceutical personnel per 100,000 people.

Mozambique’s health services can be divided into four levels. The primary level consists of health posts, mobile services and rural health centres, which carry out basic health services of both a curative and preventative nature. The secondary level consists of rural and general hospitals, only some of which are able to provide surgical services. The tertiary level includes the provincial hospitals that are able to offer diagnostic facilities and specialist services, while the quaternary level includes the three central hospitals in Maputo, Beira and Nampula. With little local pharmaceutical manufacturing, pharmaceuticals are a major import. Some antiretrovirals are produced in Mozambique. MEDIMOC is the key organisation contracted by the government to import pharmaceuticals for the country’s national health sector.

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



There is no specific mental health legislation in Mozambique, but there is a national mental health programme. There is little data to suggest the most commonly diagnosed mental illness in Mozambique.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Mozambique to achieve its targets for the reduction of child mortality, which form MDG 4, it would need to have reduced under-five deaths per 1,000 live births to 79 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 87 deaths per 1,000 live births and measles immunisation at 85 per cent. Although significant progress has been made, Mozambique will have to work hard to meet its target for under-five deaths and it is unlikely to meet the measles immunisation target.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Mozambique, the maternal mortality should fall to 228 cases per 100,000 live births. In 2013 Mozambique had an adjusted maternal mortality ratio of 480 deaths per 100,000 live births (this figure was estimated at 490 deaths per 100,000 by UN agencies/World Bank in 2010). This is more than twice the target figure. Significant progress has been made, with deaths falling considerably from almost 1,000 per 100,000 live births in 1990. However, Mozambique is very unlikely to meet the 2015 target. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2011 this figure stood at 54 per cent, so achievement of this target is also looking unrealistic.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other communicable diseases. Mozambique's prevalence of HIV was 10.8 per cent in 2013 (in the 15–49 age group). Although the HIV prevalence rate has shown a slight decline since 2009, this figure is still very high and has dramatically increased overall since 1990. While the number of reported cases of malaria in Mozambique consistently increased each year in the period 2009–12, the number of deaths from malaria has seen a gradual decline in the period 2007–12. Equally, the country is estimated to have a high and rising incidence rate for tuberculosis, while overall mortality (when mortality data excludes cases comorbid with HIV) from the disease has increased slightly in recent years. Unfortunately, Mozambique is unlikely to achieve MDG 6 by 2015.

Many measures in the Post-2015 Development Agenda National Consultation Country Report (see 'Universal health coverage' below) are steps that will contribute further towards the aims laid out in MDGs 4, 5 and 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than half of health care in Mozambique (44 per cent) was government funded in 2012. The remaining 56 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure

constituted 6.4 per cent of GDP in 2012. Expenditure by government amounts to US\$17 per capita.

Patients are often faced with out-of-pocket payments for medical treatment, which puts it beyond the reach of many poor Mozambicans. In addition to this, many people live a significant distance from the nearest health care centres, and lack of good roads and transport make it difficult for them to access treatment. There is also a shortage of medical staff and hospital beds.

A 2013 joint report by United Nations in Mozambique and the Foundation for Community Development, entitled Post-2015 Development Agenda National Consultation Country Report – Voices and Perceptions from Groups and Organizations in Mozambique, identified several key issues requiring attention in the country's post-2015 development agenda. These included improving access to high-quality health services nationwide; improving health services for women in rural areas; increasing standards of reproductive health for girls and women; and promoting the preservation of the sexual and reproductive rights of women.

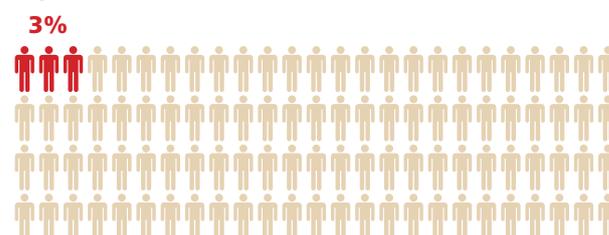
Mozambique's Health Sector Strategic Plan 2014–19 comprises seven strategic objectives, based on the principles of primary health care, equity and improving the quality of services. The plan looks to increase access and utilisation of health services; improve the quality of service provision; reduce geographic inequities between different population groups in accessing and utilising health services; improve efficiency of service provision and resource utilisation; strengthen partnerships for health; increase transparency and accountability on management of public goods; and strengthen the health system.

Mozambique is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Around 847,000 people in Mozambique are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person living in Mozambique can be expected to live for an additional 17 years, on average (2013). Mozambique's Programa de Subsídio Social Básico (basic social subsidy programme) dates back to 1992. Today, monthly pension credits are paid by the state at a rate of US\$8 per person (2007–12) on a means-tested basis. Overall, public pension spending is equivalent to 1.8 per cent of the country's total economic output (2012).

Traditionally, the elderly were cared for by extended family members but – as with neighbouring countries – many elderly people have now been left caring for grandchildren orphaned by AIDS. HelpAge International and Unicef have been working with families that are headed by elderly people, with regular visits to the household and

Population over 65



assistance provided where necessary. Other charities arrange food parcels for the most needy elderly people. There is an Old People's Village in KaTembe, set up by the government with charitable support, which provides housing, food parcels, help towards medical care, clothing, bedding and a small monthly pension.

Further information

Ministry of Health: www.misau.gov.mz

Commonwealth Health Online:

www.commonwealthhealth.org/health/africa/mozambique



Namibia



KEY FACTS

Joined Commonwealth:	1990
Population:	2,303,000 (2013)
GDP p.c. growth:	2.1% p.a. 1990–2013
GNI p.c.:	US\$5,840 (2013)
UN HDI 2014:	World ranking 127
Life expectancy:	64 years (2013)
Under-five mortality rate (per 1,000 live births):	50 (2013)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	5.1% of GDP (2013)

General information

Namibia in south-west Africa is one of the driest and most sparsely populated countries on Earth. It is bounded by the South Atlantic Ocean on the west, Angola to the north, Botswana to the east and South Africa to the south. The Caprivi Strip, a narrow extension of land in the extreme north-east, connects it to Zambia.

Namibia comprises 13 regions (from south to north): Karas, Hardap, Khomas, Erongo, Omaheke, Otjozondjupa, Kunene, Oshikoto, Okavango, Omusati, Oshana, Caprivi and Ohangwena.

Climate: Arid, semi-arid and sub-humid. Prolonged periods of drought are characteristic. There is little precipitation apart from rare thunderstorms in the arid zone of the Namib Desert coast, with rainfall rising to 600 mm or more in the sub-humid north-eastern border with Angola and the Caprivi Strip. Rain falls in

summer (October–April). The cold Benguela current gives the Namib Desert thick coastal fog.

Environment: The most significant environmental issues are the scarcity of natural freshwater resources and desertification.

Population: 2,303,000 (2013); density is extremely low overall, 45 per cent of people live in urban areas. The population growth rate stood at 2.1 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 26 per 1,000 people (43 in 1970) and life expectancy was 64 years (53 in 1970 and 62 in 1990).

The Ovambo and Kavango together constitute about 60 per cent of the total population. Other groups are the Herero, Damara, Nama and the Caprivians. The San (Bushmen), who are among the world's oldest surviving hunter-gatherers, have lived in this territory for more than 11,000 years. The 'Basters', who settled in Rehoboth in 1870, stem from marriages between white farmers and Khoi mothers in the Cape. The 'Cape Coloureds', immigrants from South Africa, tend to live in urban areas. Of the white demographic of approximately 90,000, about 50 per cent are of South African and 25 per cent of German ancestry; about 20 per cent are Afrikaners (longer-established migrants); and a small minority are of UK ancestry.

Economy: Namibia is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Namibia stood at 35 deaths per 1,000 live births in 2013, with an under-five mortality rate of 50 deaths per 1,000 live births in 2013. While the under-five mortality figure has fallen since the early 1990s, it is not yet in line with the target of 25 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2012 the four most prominent causes of death for children below the age of five years were prematurity (20 per cent), acute respiratory infections (13 per cent) and intrapartum-related complications (13 per cent). Other contributory causes were congenital anomalies (ten per cent), HIV/AIDS (nine per cent), neonatal sepsis (seven per cent), diarrhoea (six per cent), injuries (six per cent) and measles (three per cent). In 2013 Namibia had an adjusted maternal mortality ratio of 130 deaths per 100,000 live births (this figure was estimated at 200 deaths per 100,000 live births by UN agencies/World Bank in 2010).

Burden of disease: Communicable diseases together with maternal, perinatal and nutritional conditions accounted for an estimated 47 per cent of all mortality in 2012. The prevalence of HIV in Namibia, as a percentage of people aged 15–49 years, was 14.3 per cent in 2012. HIV prevalence has fallen slightly since 2002. There were 194 reported cases of malaria in 2012. There has been a significant overall reduction in confirmed cases of malaria and deaths from the disease in the period 2006–12. There has also been a notable overall decline in estimated incidence of and

estimated mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis (TB) in the period 2003–12, although both figures are presently higher than they were in 1990.

Non-communicable diseases (NCDs) accounted for an estimated 43 per cent of all mortality in 2012. The most prevalent non-communicable diseases (NCDs) in Namibia are cardiovascular diseases, which accounted for 21 per cent of total deaths across all age groups in 2012. Cancers, non-communicable variants of respiratory diseases and diabetes contributed, five per cent, four per cent and four per cent to total mortality, respectively (2012). Injuries accounted for ten per cent of deaths in 2012.

There is a lack of data concerning the most commonly diagnosed mental illness in Namibia. However, studies have shown links between mental illness in the country and HIV/AIDS: an estimated one-third of all those who are HIV positive have exhibited symptoms of depression.

Health systems: In 2012 government expenditure on health was 5.1 per cent of GDP, equivalent to US\$292 per capita. In the most

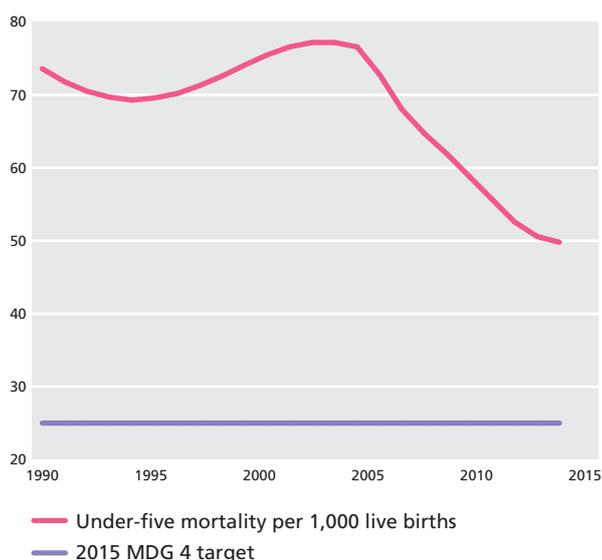
recent survey, conducted between 1997 and 2010, there were 37 medical doctors, and 278 nurses and midwives per 100,000 people. Additionally, in the most recent year for which data was available in the period 2007–12, 81 per cent of births were attended by qualified health staff and, in 2013, 82 per cent of one-year-olds were immunised with one dose of measles. In 2012, 92 per cent of the Namibian population had access to improved water sources and 32 per cent had access to adequate sanitation facilities. In the most recent survey, conducted in the period 2000–11, Namibia had 18 pharmaceutical personnel per 100,000 people.

Namibia has a large, dispersed and complex health system made up of around 1,150 outreach points, 265 clinics, 44 health centres, 30 district hospitals, three intermediate hospitals and a national referral hospital – Windhoek Central Hospital – as well as some social welfare service points. The public health sector has a three-tier structure with central, regional and district levels.

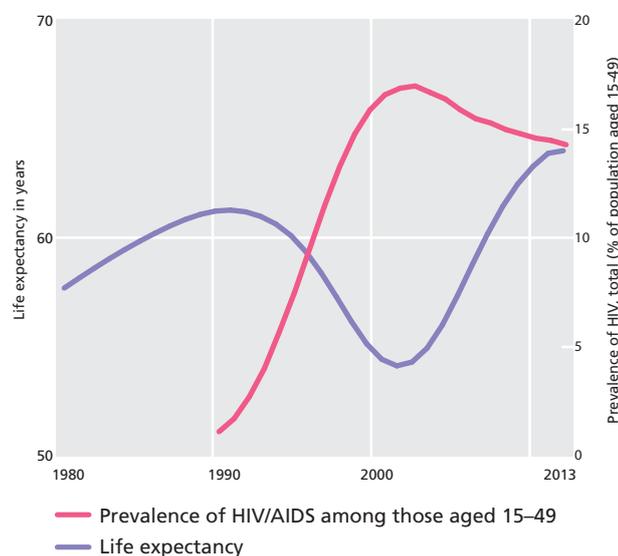
The public and private not-for-profit health care system serves 85 per cent of the population. Private health care serves the richest 15 per cent of the population.

While there is some local pharmaceutical manufacturing, this is mostly small scale and the majority of the country's pharmaceutical requirements are imported. The Namibia Medicines Regulatory Council is a statutory body established by the Medicines and Related Substances Control Act 2003 to regulate the use of medicines in Namibia.

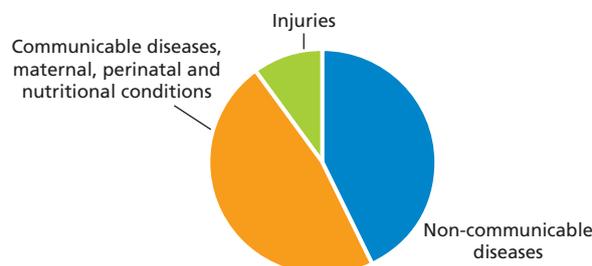
Under-five mortality



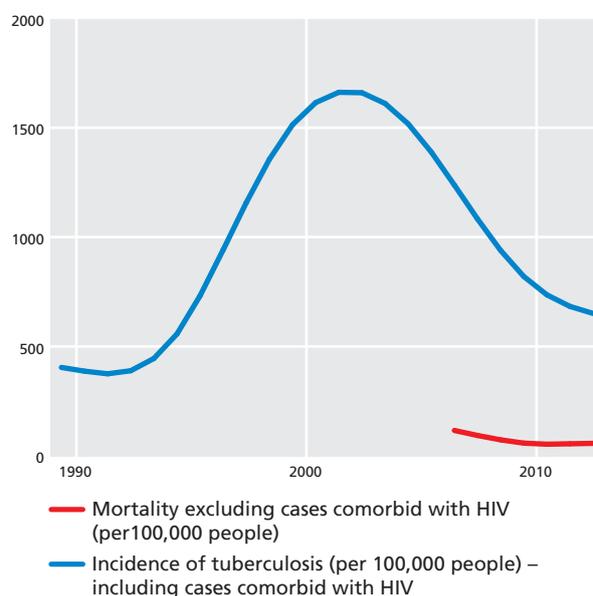
Life expectancy and HIV/AIDS



Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



The most recent act relating to mental health in Namibia is the Mental Health Act 1973.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Namibia to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 25 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality was approximately 50 deaths per 1,000 live births – double the target figure – and measles immunisation was 82 per cent, which suggests that it is unlikely that Namibia will have met this goal when the 2015 data is analysed.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Namibia, maternal mortality should fall to 50 cases per 100,000 live births. In 2013 Namibia had an adjusted maternal mortality ratio of 130 deaths per 100,000 live births (this figure was estimated at 200 deaths per 100,000 live births by UN agencies/World Bank in 2010), so Namibia is very unlikely to meet this target. MDG 5 also stipulates that 100 per cent of births must be attended by a skilled health professional. In the most recent year for which data was available in the period 2007–12, this figure stood at 81 per cent, so achievement of this target also looks unrealistic.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Namibia has demonstrated a decline in the percentage of the population with HIV, although the figure remains very high. Deaths from malaria have declined since the beginning of the MDG period, while the estimated rate of mortality from TB (when mortality data excludes cases comorbid with HIV) is now approximately double that of 1990. The country may achieve some of the targets set by MDG 6 by 2015, but it is unlikely to achieve them all.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Almost two-fifths of health care in Namibia (38 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 8.3 per cent of GDP in 2012, of which 62 per cent (US\$292 per capita) was covered by the government.

The sheer size of the country versus the sparseness of the population causes geographical accessibility barriers to health care. A 2010 WHO exit survey from a range of health facilities found that 13 per cent of patients had travelled more than 21 km to receive treatment. Another major barrier is cost, with fees chargeable for most health services. Some social groups are exempt from payment, including those receiving certain preventive services, and for vulnerable groups, such as children under five and pregnant women. However, government policy is not to turn away patients who cannot afford to pay, with a waiver mechanism in place for this purpose.

The San face particular problems accessing health care as they live in remote areas and frequently go into the bush on long hunting expeditions. In addition, few health staff speak their language.

There is an insurance scheme providing health insurance for public sector employees, while private insurance companies provide health insurance policies for private sector employees.

The Ministry of Health and Social Services, with support from development and implementing partners, has initiated Namibia's National Strategy and Action Plan for the Elimination of New Paediatric HIV Infections and Keeping Their Mothers Alive 2012/13–2015/16. The plan, developed through a series of consultations with internal and external stakeholders, aspires to eliminate mother-to-child transmission of HIV in Namibia.

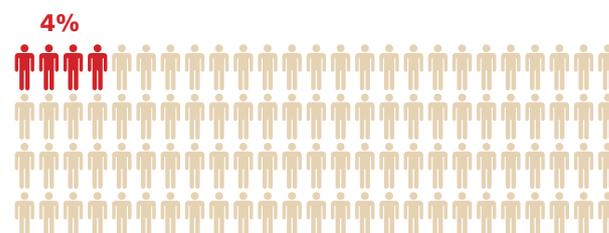
The WHO's strategic agenda for Namibia's second Country Co-operation Strategy cites strengthening the health system as one of its priorities, with a focus on financing, human resource development, vaccines and service delivery.

Health is a priority area of support from donors, accounting for 79 per cent of all donor payments to Namibia. A large proportion of this goes towards treatment and prevention of AIDS.

Namibia was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1994 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: There are 81,717 people in Namibia over the age of 65 – four per cent of the total population (2013). At the age of 60 a person living in Namibia can be expected to live for an additional 17 years, on average (2013). Namibia's Old Age Pension dates back to 1949 and has been universal since 1992. Today, monthly pension credits are paid by the state at a rate of US\$60 per person (2007–12) on a universal basis. Overall, public pension spending is equivalent to 1.3 per cent of the country's total economic output (2004).

Population over 65



Thanks to the universal pension, elderly people in Namibia at the lower end of the socio-economic scale are not as impoverished as in other African nations. However, unemployment and AIDS has seen some elderly people supporting children and grandchildren on their modest pension payments. There are also a number of old people's homes in urban areas – a mixture of government, private and charity run institutions.

Further information

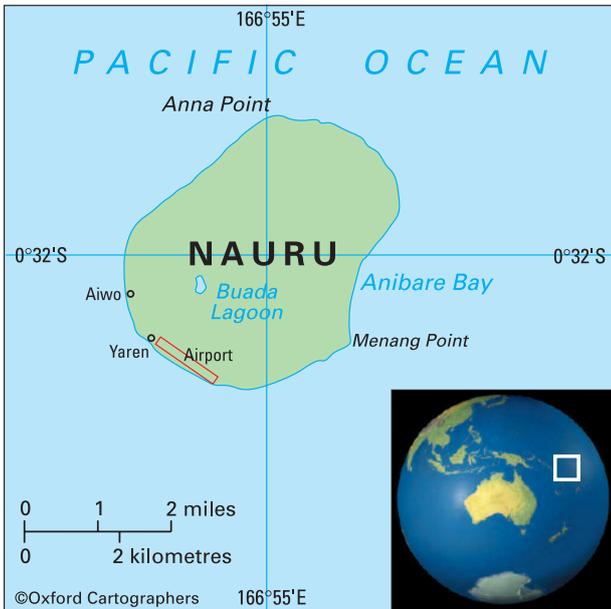
Ministry of Health and Social Services: www.mhss.gov.na

Commonwealth Health Online:

www.commonwealthhealth.org/health/africa/namibia



Nauru



KEY FACTS

Joined Commonwealth:	1968
Population:	10,000 (2013)
GDP p.c.:	US\$10,277 (2012)
Life expectancy:	66 years (est 2012)
Under-five mortality rate (per 1,000 live births):	37 (2013)
Largest contribution to mortality:	Cardiovascular diseases

General information

Nauru is a small oval-shaped island in the western Pacific Ocean.

Climate: The climate is tropical, with sea breezes. North-east trade winds blow March–October. Day temperatures range from 24°C to 34°C; average humidity is 80 per cent. Rainfall is erratic and often heavy; average annual rainfall is 2,060 mm. The monsoon season is November–February. With the destruction of the forested areas on the plateau land to enable phosphate mining, climate changes have been noted with extensive dry periods. If global warming causes sea levels to rise, the habitable low-lying land areas will be at risk from tidal surges and flooding.

Environment: The most significant environmental issues are devastation of some 90 per cent of the island by intensive phosphate mining during most of the 20th century, and dependence on an ageing desalination plant and collection of limited rainwater for water supply.

Population: 10,000 (2013); 100 per cent of people live in urban areas. The population growth rate stood at 0.4 per cent p.a. 1990–2013. The birth rate is estimated to be 27 per 1,000 people and life expectancy 66 years.

The indigenous people of Nauru are Micronesians. Increased population since the 1960s has put extreme pressure on the coastal fringe surrounding the island, which is currently the only space available for housing.

Economy: Nauru is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Nauru was 30 deaths per 1,000 live births in 2012, with an under-five mortality rate of 37 deaths per 1,000 live births in 2013. In 2010 the three most prominent causes of death for children below the age of five years were prematurity (24 per cent), pneumonia (17 per cent) and congenital anomalies (16 per cent). Other contributory causes were birth asphyxia (14 per cent), and diarrhoea and injuries (both seven per cent). In the period 2009–13 Nauru had no reported maternal mortalities. There is no adjusted figure available for this period.

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 70 per cent of all mortality in Nauru in 2008. The most prevalent NCDs in Nauru are cardiovascular diseases, which accounted for 40 per cent of total deaths across all age groups in 2008. Cancer, non-communicable variants of respiratory diseases and diabetes contributed nine per cent, five per cent and four per cent to total mortality, respectively (2008).

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 19 per cent of all mortality in 2008. As of 2011 there were no known cases of HIV/AIDS in the country. Nauru falls into a list of countries compiled by the World Health Organization in which malaria never existed or disappeared without specific measures. The estimated incidence of tuberculosis (TB) saw a significant decline in the period 2006–12, while estimated mortality from the disease showed a notable increase in this time. Figures for both are higher than they were in 1999.

The most commonly diagnosed mental illness in Nauru is depression. The condition has been found to be common among the small population of asylum seekers awaiting entry to Australia.

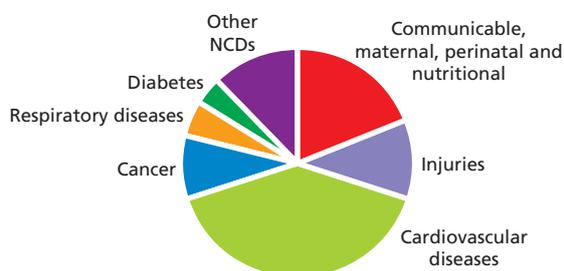
Health systems: In 2012 government expenditure on health was equivalent to US\$491 per capita. In the most recent survey, conducted between 2007 and 2012, 97 per cent of births in Nauru were attended by qualified health staff. In 2012, 96 per cent of the country's population had access to an improved water source and 66 per cent to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Nauru has 50 pharmaceutical staff per 100,000 people.

In 1999 Nauru's two hospitals, the government-run Nauru General Hospital and the private Nauru Phosphate Corporation Hospital, amalgamated into the state-run Republic of Nauru Hospital (RONH), which provides free medical and dental treatment for all citizens.

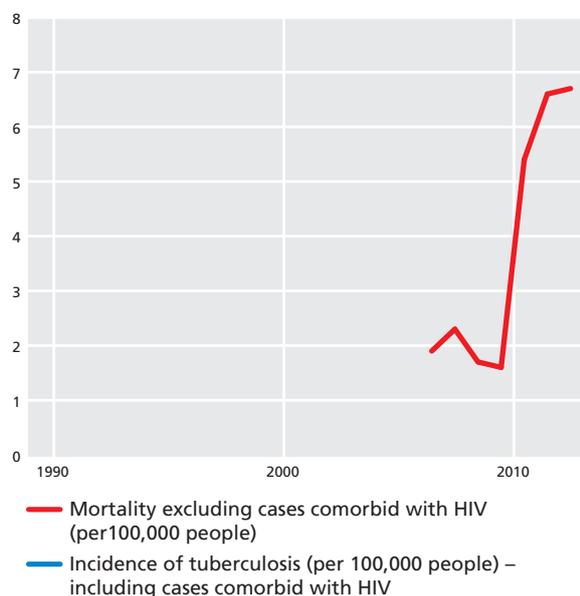
RONH is located in Yaren and provides basic medical care; special treatment is mainly limited to diabetes and other obesity-related diseases at the Naoero Public Health Centre, run by the Department of Public Health. Radiological services and lab work are available at RONH and there is an operating theatre, but no facilities for MRI or CT scans. Anyone with serious illnesses and injuries that cannot be treated on the island must be sent by air to Australia. There is no pharmaceutical manufacturing or independent drug regulatory authority in Nauru. The Republic of Nauru Pharmacy imports pharmaceuticals from Australia and the Netherlands, and suffers from frequent shortages in supply as well as disruptions in distribution.

As part of the government's National Sustainable Development Strategy, the Nauru NCD Action Plan was initiated in 2009 to combat high levels of diabetes and obesity by encouraging physical activity and nutritional education, and discouraging alcohol and tobacco use. Figures from 2004 show that 58 per cent of 25–64-year-olds were obese, with 23 per cent suffering from diabetes. Nauru's WHO Country Co-operation Strategic Agenda (2013–17)

Mortality by cause of death (% of all deaths), 2008



Tuberculosis: Incidence and mortality



prioritises preventative measures towards obesity and diabetes through use of an improved food control system. Unhealthy lifestyle choices are linked to limited agricultural production in Nauru and high costs of importing fresh foods.

No fully formed mental health policy or act existed in Nauru at the time of writing. The island is a member of the WHO Pacific Islands Mental Health Network and operates a Mental Health Toll-Free Help Line.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Nauru to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 44 and increased measles immunisation to 100 per cent when the 2015 data is analysed. Nauru's under-five mortality rate for 2013 is approximately 37 deaths per 1,000 live births, so it has already surpassed that figure. In 2011, 100 per cent of one-year-olds were immunised against measles, so this goal, too, has been met.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. However, little data is available for this statistic. In the period 2009–13 Nauru had no reported maternal mortalities. Part of this goal stipulates that 100 per cent of births must be attended by a skilled health professional. In the period 2007–12 this figure stood at 97 per cent and so this target is close to being achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. The contribution of communicable diseases to total mortality in Nauru is fairly low for a developing country. Tuberculosis (TB) is a possible threat to achieving the MDG 6 target, although estimated incidence of the disease fell by around a third in the period 2006–10. Malaria is not a problem in Nauru. While efforts should be concentrated on TB, it is likely Nauru will achieve the main targets set out by MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health care

Total government health expenditure in Nauru amounts to US\$491 per capita (2012). The island's hospital provides free medical and dental treatment for all citizens.

The Nauru National Sustainable Development Strategy 2005–25 includes a commitment to the provision of effective clinical and preventive health services, such as those to treat, screen for and reduce NCDs as set out in the Nauru National NCD Action Plan. The strategy also commits to meeting the requirements of the conventions of the United Nations, such as the WHO Framework of Convention on Tobacco Control, the International Convention on Population Development and the Convention on the Rights of the Child. It also looks to making improvements to health information, developing human resources in the health sector and improving medicinal and equipment management systems.

Australian funding has helped to create more senior management roles in the Ministry for Health, as well as more support staff in the

public health sector and training for existing health staff. Aid to the tune of AUS\$3.9 million (2013–14) has also gone towards hospital maintenance, the supply of medical equipment and pharmaceuticals, help with nurses' salaries and medical specialist visits.

Nauru is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to the ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Just four per cent of Nauru's population is over 60 years. This demographic is unusual in the Pacific, as most nations have a higher proportion of elderly people – in Niue, for example, 20 per cent of the population is over 60.

Traditionally in Micronesian society, the elderly were cared for by younger generations of their extended family. However, living patterns are changing, leaving some older people vulnerable. In the early days of the Nauru Phosphate Royalties Fund, it was used to fund a welfare system from which the elderly benefited. Some elderly people still receive payments in relation to the fund.

Further information

Ministry of Health: www.naurugov.nr

Commonwealth Health Online:
www.commonwealthhealth.org/health/pacific/nauru



New Zealand



KEY FACTS

Joined Commonwealth:	1931 (Statute of Westminster)
Population:	4,506,000 (2013)
GDP p.c. growth:	1.5% p.a. 1990–2013
GDP p.c.:	US\$41,556 (2013)
UN HDI 2014:	World ranking 7
Life expectancy:	81 years (2012)
Under-five mortality rate (per 1,000 live births):	6 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	8.5% of GDP (2012)

General information

New Zealand's Māori name is Aotearoa, meaning 'Land of the Long White Cloud'. A well-watered and fertile mountainous island country in the South Pacific, New Zealand consists of two large islands (North Island and South Island), Stewart Island and a number of offshore islands. It is somewhat isolated, being about 1,600 km east of Australia, the nearest land mass. Other neighbouring countries are Vanuatu and Tonga.

Climate: Temperate marine climate influenced by the surrounding ocean, the prevailing westerly winds and the mountainous nature

of the islands. The weather tends to be changeable. Winds can be very strong, sometimes damaging buildings and trees. Rain, sometimes very heavy, occurs throughout the year. Cold southerly winds bring snow in winter, sometimes in spring. In Wellington, yearly average rainfall is 1,270 mm (143 mm in July, and averaging 87 mm in November–February); average January temperature is 13–20°C and July temperature 6–11°C. Most of the country experiences at least 2,000 hours of sunshine annually. In recent years, weather patterns have been affected by La Niña and El Niño; some unusually high temperatures have been recorded; and drought and unusually heavy rainfall have occurred.

Environment: The most significant environmental issues are deforestation and soil erosion, and the impact on native flora and fauna of species introduced from other countries.

Population: 4,506,000 (2013); 86 per cent of people live in urban areas and 29 per cent in urban agglomerations of more than a million people. The population growth rate stood at 1.2 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 14 per 1,000 people (22 in 1970) and life expectancy 81 years (71 in 1970). The 2006 census recorded 2,609,592 people of European origin (65 per cent); 565,329 people of Polynesian (Māori) descent (14 per cent); 265,974 Pacific Island Polynesians (6.6 per cent), mostly from Samoa (131,103), Cook Islands (56,895) and Tonga (50,478); some 139,728 Chinese (3.5 per cent); and 97,443 Indians (2.4 per cent). About 75 per cent of people live in North Island, of which the average population density is 24 per sq km (South Island: six per sq km).

Economy: New Zealand is classified as a high-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in New Zealand was five deaths per 1,000 live births in 2013, with an under-five mortality rate of six deaths per 1,000 live births in 2012, down from 11 deaths in 1990. The MDG target for New Zealand is to have a rate of four deaths per 1,000 live births by 2015. In 2012 the two most prominent known causes of death for children below the age of five years were congenital anomalies (22 per cent) and prematurity (25 per cent). Other contributory causes were injuries (17 per cent), intrapartum-related complications (eight per cent), acute respiratory infections (five per cent), diarrhoea and neonatal sepsis (both two per cent). In 2013 New Zealand had an adjusted maternal mortality ratio of eight deaths per 100,000 live births (an estimate from UN agencies/World Bank), close to the MDG target of four deaths per 100,000 live births for 2015. Almost all (96 per cent) births were attended by a qualified attendant in 2010.

Burden of disease: Non-communicable diseases (NCDs) in New Zealand accounted for an estimated 88 per cent of all mortality in 2012. The most prevalent NCDs in New Zealand are cardiovascular

diseases, which accounted for 32 per cent of total deaths across all age groups in 2012; cancer, which caused 29 per cent of deaths; and respiratory diseases, which accounted for seven per cent of deaths. Injuries accounted for seven per cent of deaths in 2012.

Communicable diseases accounted for an estimated five per cent of all mortality in 2012, with respiratory infections and infectious or parasitic diseases accounting for three per cent of all deaths. New Zealand is considered a non-endemic country for malaria by the World Health Organization. Estimated incidence of tuberculosis (TB) has been falling since 2002 and estimated mortality (when mortality data excludes cases comorbid with HIV) has been falling year on year since it peaked in 2010.

The most commonly diagnosed mental illnesses in New Zealand are anxiety and other mood disorders.

Health systems: In the most recent survey, conducted in 2010, there were 274 medical doctors, and 1,087 nurses and midwives per 100,000 people. Additionally, 93 per cent of one-year-olds were immunised with one dose of measles in 2013. In 2012 everyone had access to improved water sources and the most

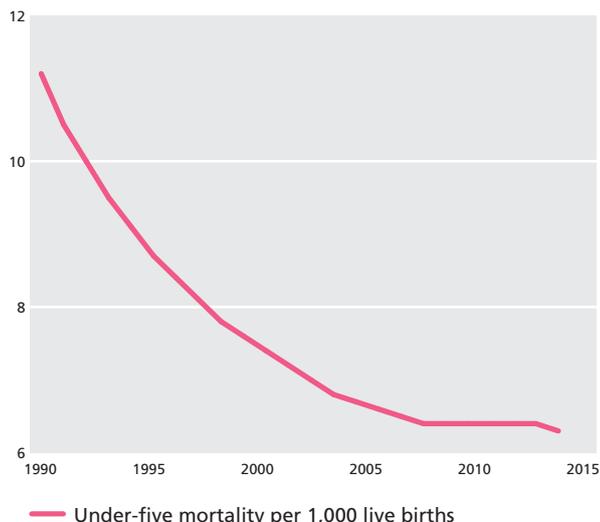
recent survey, conducted in the period 2000–11, reports that New Zealand has 101 pharmaceutical personnel per 100,000 people.

Health care and disability services in New Zealand are delivered by a complex network of organisations and people. Most of the day-to-day business of the system is administered by 20 district health boards (DHBs), which plan, manage, provide and purchase primary health services for the people in their district, including hospital care, speciality care and community nursing. The Ministry of Health acts as a policy adviser to the government, as well as being an agent for monitoring and regulating the DHBs. Public hospitals are owned and funded by the DHBs. In addition to DHBs, health care is provided by a range of private and non-governmental organisations (NGOs). Health and disability NGOs are funded by the Ministry of Health or a DHB, and provide a wide range of services. There are also more than 200 Māori health and disability providers that are Māori-owned and governed.

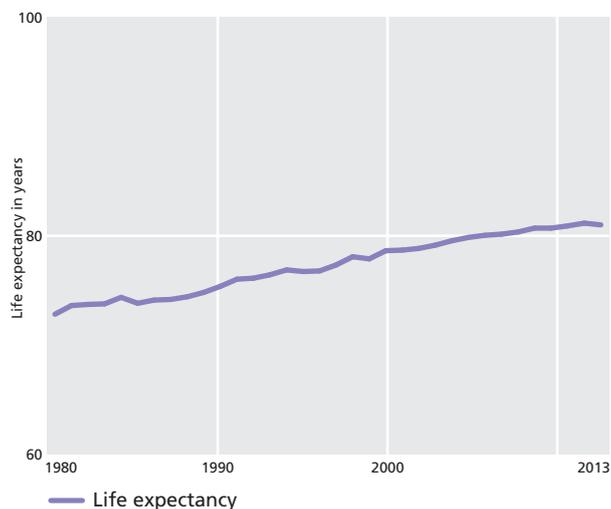
There is a large pharmaceutical industry in New Zealand that contributes a major portion to total manufacturing exports.

Pharmaceutical companies based wholly in New Zealand and conglomerates with international ties make up nearly one per cent of the world's pharmaceutical industry. More than 34,000 people in more than 300 companies engage in manufacturing, research and development, and wholesaling. PHARMAC is the pharmaceutical management agency in New Zealand, funded by DHBs to obtain various medicines.

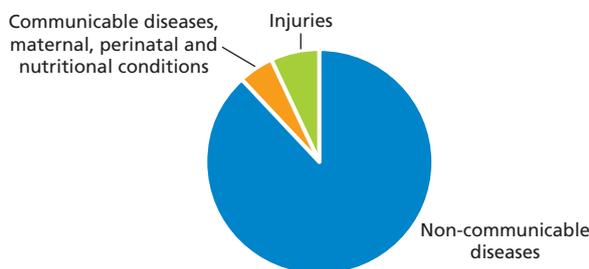
Under-five mortality



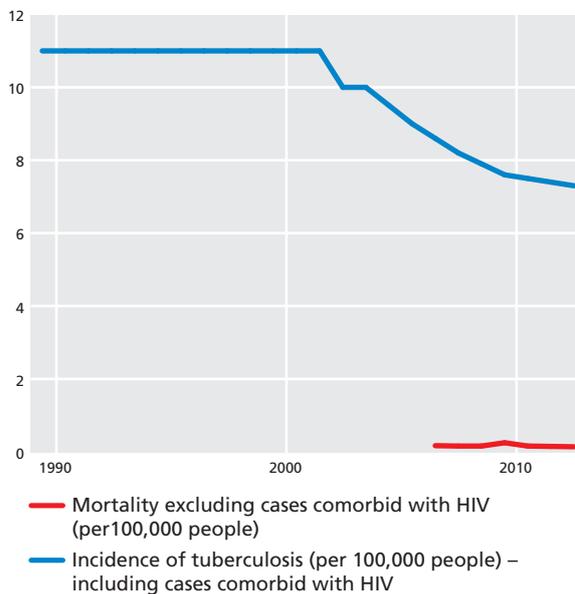
Life expectancy



Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



The most recent act relating to mental health in New Zealand is the Mental Health Act 1992.

Main health concerns and plans for remedial action: New Zealand currently has a life expectancy of 81 years, showing a sustained increase in life expectancy from 79 years in 2000 and 75 years in 1990. Gains have been primarily due to reduced child and maternal mortality, and improved longevity for other age groups, particularly for older people with chronic diseases.

Life expectancy at birth in the Māori population is approximately eight years less than for non-Māori of both genders (2012). All district health boards (DHBs) are required to work towards improving the health of Māori and reducing health disparities between Māori and non-Māori. As part of New Zealand's commitment to improving the health of indigenous people, each DHB is required to have a Māori Health Plan (MHP) that highlights the DHB's efforts to this effect.

In 2013 an estimated 5.4 per cent of the estimated resident population had diabetes and 30 per cent of adults were obese. Obesity is one of the most important modifiable risk factors for these diseases.

Each year the Ministry of Health for New Zealand publishes health targets to provide a focus for action. The targets are designed to improve the performance of specific health services. The ministry has set a target to carry out more heart and diabetes checks nationwide, aiming for 90 per cent of the eligible population to have had their cardiovascular risk assessed within the last five years, as well as being tested for diabetes.

Other targets include 85 per cent of patients receiving their first cancer treatment, or other support, within 62 days of being referred and for five per cent of infants aged eight months to have completed their primary course of immunisations on time. There are also targets on providing support and advice to help smokers quit – an estimated 5,000 people a year die from smoking-related illness in the country.

For definitions and sources see page 314.

Universal health coverage

Less than a fifth of health care in New Zealand (17 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constitutes 10.3 per cent of GDP (2012), of which 83 per cent (US\$2,723 per capita) is covered by the government.

Primary health care in New Zealand is not generally free, with charges making health care less accessible to the economically disadvantaged. Government research found that one in four adults and one in four children reported unmet need for primary health care in the past year in 2013. Unmet need for primary health care was found to be more common among Māori and Pacific adults and children, and in those living in the most deprived areas. However, there was found to be low rates of unmet need, due to cost, among children aged less than six years.

Fees for primary health care vary, as doctors' practices and medical centres are privately owned and so set their own fees. Charges for children under six are usually lower than those of adults. Some general practices are members of a 'low cost access' programme

run by their primary health organisation, which means they get extra government funding to keep their fees at low levels.

GPs can also charge a fee for services provided outside of a consultation, such as a repeat prescription or referral letter to a specialist. However, mothers of babies born in New Zealand are entitled to free essential care during and after their pregnancy. Specialist care is free through the public health system.

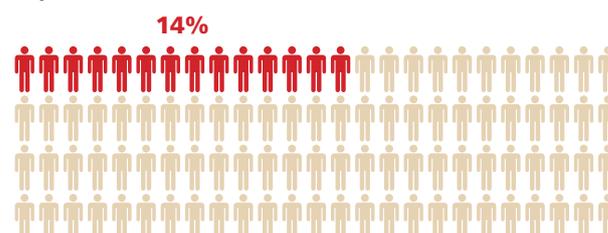
Improving indigenous disparities in the distribution of health and its determinants is a priority of the New Zealand government, with 15.4 per cent of the population currently identified as indigenous (2012). Primary care costs appear to be a particular problem, as Māori are less likely to seek medical care when a payment is levied. Other issues include cultural barriers and lack of facilities in some areas.

New Zealand's Māori Health Strategy, He Korowai Oranga, sets the overarching framework that guides the government and the health and disability sector to achieve the best health outcomes for Māori.

New Zealand has signed and ratified the International Covenant on Economic, Social and Cultural Rights, which includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: In 2013, 14 per cent of the population was over 65 years of age, with people aged 60 expected to live for an additional 24 years, on average. Almost five per cent of pensions (4.7 per cent) were paid out of public funds in 2009, with Superannuation paid monthly by the state at a rate of US\$1,263 per person (2007–12) on a universal basis. Pensions were first introduced in New Zealand in 1898, becoming universal in 1940.

Population over 65



A range of support services for older people are funded by the DHBs, most of which are aimed at helping people to live independently for as long as they can. The services include help with personal care (such as getting out of bed, dressing and bathing), help with shopping, cooking or cleaning, and installation of specialist equipment. DHBs are also responsible for funding residential care services for the elderly under the Social Security Act 1964.

The Ministry of Health's Health of Older People Strategy includes a scheme to identify older people at risk of developing disease, disability or mental health problems, and provide appropriate preventive care. There is also screening available for vision and hearing loss.

Further information

Ministry of Health: www.health.govt.nz

Commonwealth Health Online:
www.commonwealthhealth.org/health/pacific/new_zealand



Premier Medicaid Nigeria Limited

Ayedun Community-Based Social Health Insurance Programme

Current health issues in Nigeria

The population of Nigeria (168 million) is roughly two per cent of the world population but Nigeria contributes ten per cent of maternal deaths worldwide. According to the United National Fund for Population Activities (UNFPA), Nigeria is one of the countries with the worst maternal mortality rates in the world with Angola, Burkina Faso, Mauritania and Sierra Leone following.

In Nigeria, 92.2 per cent of Nigerians live below ₦256 per day and cannot access medical care because drugs are purchased 'out of pocket'. Malaria causes about 60 per cent of overall deaths in Nigeria, while 110 million case incidences are reported per year. Ninety per cent of these cases are at the rural community level. Therefore, if Nigeria is to achieve Universal Health Coverage and become one of the best 20 economies by 2020, a concerted and aggressive approach must be evolved that will bring adequate, qualitative, affordable and sustainable healthcare to the doorstep of every Nigerian citizen and this can only be achieved through the instrumentality of the Community-Based Social Health Insurance Programme (CB-SHIP).

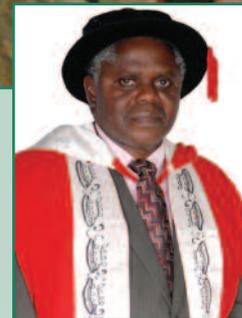
Stakeholders in CB-SHIP

The major stakeholders in CB-SHIP at ward level are Mutual Health Association (MHA), Healthcare Facility (HF) and Health Maintenance Organisation (HMO). The MHA is the organisation put in place by the community to superintend the healthcare needs



of the people. The Royal Father or Traditional Ruler is the Patron, while the common denominator is the household enrolee.

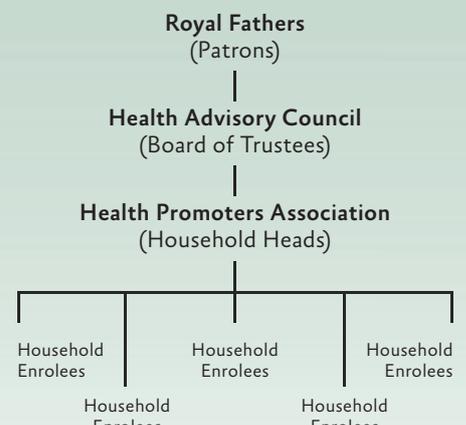
The MHA, also known as Health Promoters Association (HPA), chooses their Board of Trustees from which the Executive Council is elected. The HMO provides technical support and advice. The contributions (premiums to be collected) must be determined by the community and managed according to health insurance principles. A unit of the Ward Health Organisation should register about 5,000 enrolees. All governments, (federal, state, local) should subsidise these so that capitation will at least cover MDG 4, 5 and 6, i.e. infant and maternal mortality, malaria, HIV/AIDS, bacterial and amoebic diseases and viral infections with immunisation. This is the way forward in Universal Health Coverage.



Left: Sir Dr Kayode Obembe BSc Med Sc, MBBS, FMCOG, FWACS, FIAMN, FAGP, FICS, DMP, Hon. DG, M.O.W., J.P., KJW Vice-Chairman / Chief Executive Officer,

Premier Medicaid Nigeria Limited (HMO/NHIS) and President of Nigerian Medical Association
Above: Ayedun Community-Based Social Health Insurance Programme (A-CB-SHIP)

Organogram of Ayedun CB-SHIP





Nigeria



KEY FACTS

Joined Commonwealth:	1960 (suspended 1995–99)
Population:	173,615,000 (2013)
GDP p.c. growth:	2.6% p.a. 1990–2013
GNI p.c.:	US\$2,710 (2013)
UN HDI 2014:	World ranking 152
Life expectancy:	53 years (2013)
Under-five mortality rate (per 1,000 live births):	117 (2013)
Largest contribution to mortality:	Respiratory infections
Government health expenditure:	1.9% of GDP (2012)

General information

The Federal Republic of Nigeria lies on the Gulf of Guinea and has borders with Benin (west), Niger (north), Chad (north-east across Lake Chad) and Cameroon (east). It comprises the Abuja Federal Capital Territory and 36 states.

Climate: Tropical; hot and humid on the coast, with greater extremes of temperature inland and cold nights in the north during December–January. The rainy season is generally March–November in the south and May–September in the north. In the dry season, the harmattan wind blows from the Sahara.

Environment: The most significant environmental issues are rapid deforestation, soil degradation and desertification.

Population: 173,615,000 (2013); 46 per cent of people live in urban areas and 15 per cent in urban agglomerations of more than a million people. The population growth rate stood at 2.6 per cent

p.a. between the years of 1990 and 2013. In 2013 the birth rate was 41 per 1,000 people (47 in 1970) and life expectancy was 53 years (40 in 1970).

Nigeria is one of the most ethnically diverse countries. There are some 250 ethnic groups, with the Hausa-Fulani, Yoruba and Igbo making up 70 per cent.

Economy: Nigeria is classified as a lower-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Nigeria was 74 deaths per 1,000 live births in 2013, with an under-five mortality rate of 117 deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1995. While this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of 71 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent causes of death for children below the age of five years were malaria (20 per cent), acute respiratory infections (16 per cent) and prematurity (12 per cent). Other contributory causes were intrapartum-related complications (11 per cent), diarrhoea (ten per cent), birth neonatal sepsis (five per cent), injuries (four per cent), HIV/AIDS (three per cent), congenital anomalies (three per cent) and measles (one per cent). In 2013 Nigeria had an adjusted maternal mortality ratio of 560 deaths per 100,000 live births (this figure was estimated at 630 deaths per 100,000 by UN agencies/World Bank in 2010).

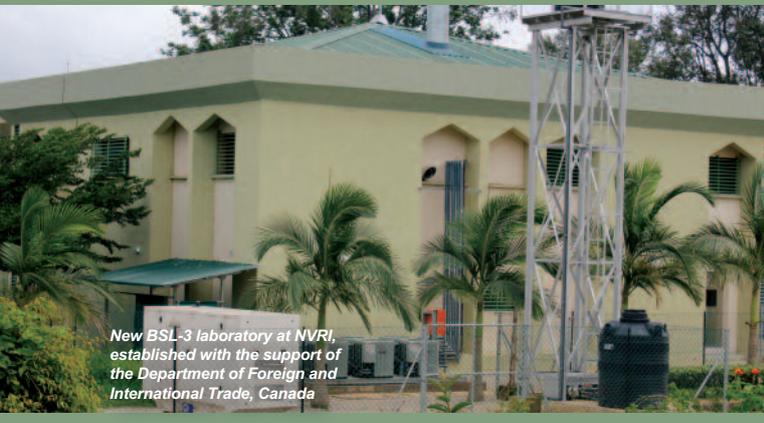
Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 66 per cent of all mortality in Nigeria in 2012. The prevalence of HIV in Nigeria, as a percentage of people aged 15–49 years, was 3.2 per cent in 2012. There was no notable overall change in HIV prevalence in the period 2000–09. However, the period 2010–12 has seen a consistent and gradual decrease in the prevalence of the disease. In 2010 there were 551,187 reported cases of malaria. Confirmed cases of malaria rose in the period 2001–11, while numbers of deaths fell slightly before almost doubling in 2011–12. There has been an overall increase in the estimated incidence of tuberculosis (TB) in the period 1990–2013 and a slight decrease in estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease in the period 1990–2013.

There was a brief outbreak of Ebola in Nigeria in 2014, but the country won international praise when it quickly brought the disease under control by declaring a national public health emergency as soon as the first case was identified. Only eight people died before the country was declared Ebola free.

Non-communicable diseases (NCDs) accounted for an estimated 24 per cent of all mortality in 2012. The most prevalent NCDs in Nigeria are cardiovascular diseases, which accounted for seven per



National Veterinary Research Institute, Vom Nigeria



New BSL-3 laboratory at NVRI, established with the support of the Department of Foreign and International Trade, Canada

What began in 1924 as a small laboratory for the production of anti-serum to control the deadly rinderpest scourge in cattle, has today grown into a renowned institution, with a wide mandate for animal disease surveillance and control, research and animal vaccine development and production.

Research projects include those on the highly pathogenic avian influenza (HPAI) virus in Nigeria, foot-and-mouth disease (FMD), contagious bovine pleuro pneumonia (CBPP), peste des petits ruminants (PPR), African swine fever (ASF), brucellosis and anthrax. Other research programmes include the development of multivalent vaccines for the control of poultry diseases such as salmonellosis, and the development of a killed, adjuvanted rabies cell culture vaccine. These projects are supported by partners including FAO, OIE, DFID, EU and the Canadian government.

NVRI also produces ethno-veterinary products from local herbs for the control of skin infections in both animals and humans. Some of these products have been certified and are ready for commercial production while others are undergoing clinical and toxicity trials.

These research programmes have been designed to deliver on the mandate and the mission of NVRI. The key to the success of meeting the mandate is continued self-regulation and peer review to ensure that research is demand driven and generates technologies that will solve farmers' problems. The huge demand for animal vaccines and disease surveillance and control has meant that high quality research is also continuous.



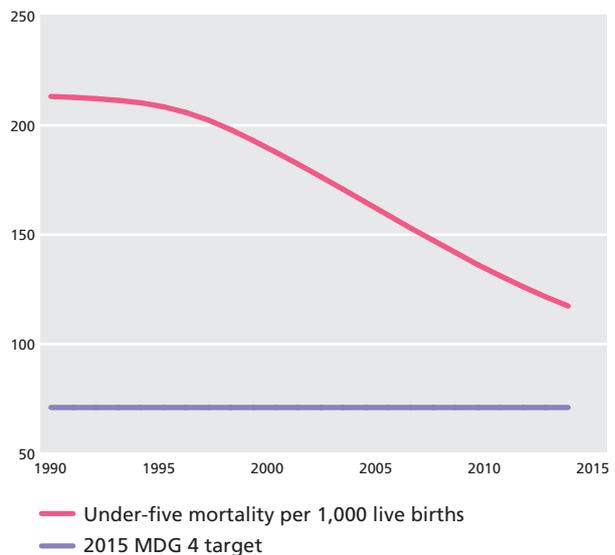
Dr Mohammed Sani Ahmed
DVM, MPVM, PhD, FCVSN,
Executive Director

cent of total deaths across all age groups in 2012. Cancer, diabetes and non-communicable variants of respiratory diseases contributed three per cent, two per cent and one per cent to total mortality, respectively (2012). Injuries accounted for ten per cent of deaths in 2012.

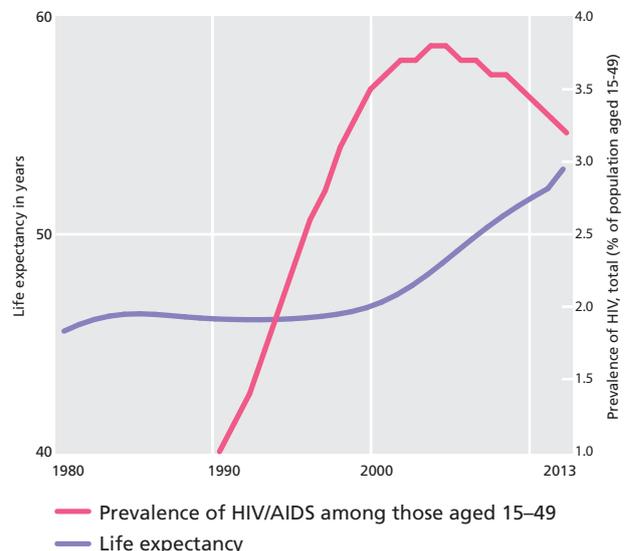
The most commonly diagnosed mental illnesses in Nigeria are mood disorders.

Health systems: In 2012 government expenditure on health was 1.9 per cent of GDP, equivalent to US\$29 per capita. In the most recent survey, conducted between 1997 and 2010, there were 40 doctors, and 161 nurses and midwives per 100,000 people. Additionally, in 2013, 38 per cent of births were attended by qualified health staff and in 2013, 59 per cent of one-year-olds were immunised with one dose of measles. In 2012, 64 per cent of people were using an improved drinking water source and 28 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Nigeria has 11 pharmaceutical personnel per 100,000 people.

Under-five mortality



Life expectancy and HIV/AIDS



The public Nigerian National Health Insurance Scheme was launched by the government in 1999, but took more than a decade to become fully operational.

All three tiers of government – federal, state and local – have responsibility for providing health care. The federal government provides policy guidance, planning and technical assistance, managing state-level implementation of the National Health Policy and establishing health management information systems. It is also in charge of disease surveillance, drug regulation, vaccine management and the training of health professionals, as well as directly managing some medical centres, teaching hospitals, psychiatric facilities and orthopaedic hospitals.

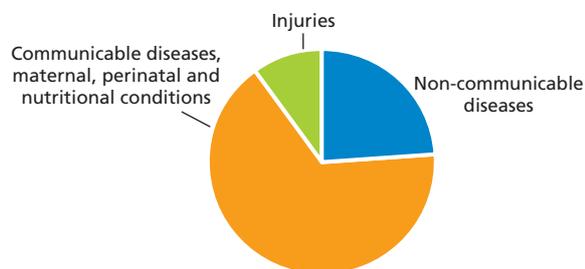
Individual states operate general (secondary) hospitals, some tertiary hospitals and some primary health care facilities. The training of nurses, midwives and technicians is also managed by state authorities.

There is a local pharmaceutical manufacturing industry meeting up to 30 per cent of local demand.

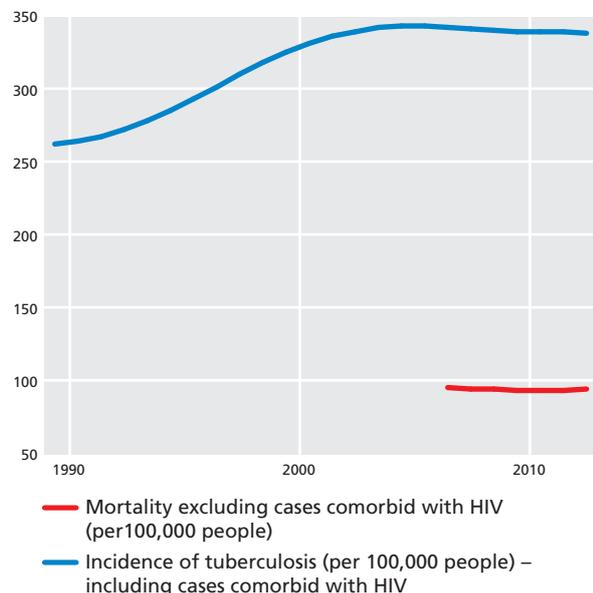
The most recent act relating to mental health in Nigeria is the Lunacy Act 1958. A new Mental Health Act has been drafted, but has been slow to be brought into law.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



ADONAI HOSPITAL

Founded over two decades ago as a private initiative, Adonai Hospital is an ultramodern, multi-specialist and multi-practice medical facility located in Mararaba, Nasarawa State near Abuja, Nigeria's federal capital.

Supported by comprehensive state-of-the-art medical hardware and a highly motivated team of experienced health professionals, the facility provides care for thousands of residents and has a growing clientele profile of medical tourists from other parts of Nigeria, West-Africa and beyond.



With state-of-the-art medical hardware, Adonai's expertise is reinforced in Obstetrics and Gynaecology, Paediatrics, Surgery and Dentistry, Medicine, Ophthalmology, Family Planning and ancillary services

Clinicians and other health professionals at Adonai are constantly evolving new strategies and approaches to patient care based on the most recent and up-to-date scientific evidences. The hospital has a strong research inclination and health personnel at Adonai have a long-standing



Adonai has a strong research inclination

tradition of rigorous peer engagement via constant seminars, mortality and morbidity reviews and other clinical meetings.

Adonai is committed to health advocacy for the vulnerable in resource-poor settings.

Under its Widows, Children-of-the-Poor & Indigent Aged (WICOPIA) project, eligible patients are offered alternatively funded access to life-saving healthcare services.

In all, patient care and positive clinical outcomes are the key objectives to activities at our centre and we are proud to have the privilege of being acclaimed as one of the leading, multi-specialist medical practices and destinations of choice for medical tourism in the Abuja-Nassarawa axis of Nigeria.



Dr Godwin Adakole Obute, CEO

www.adonaihospital.org



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Our mission is to be the best Nigerian company within the healthcare sector providing an uncompromised standard for quality in goods and services. To this end, we aim to:

- ✓ Understand our clients' needs
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Our consistency in delivering the best in goods and services has affected our growth positively from a modest beginning into a premier group of companies that provide excellent services in:

- ✓ Healthcare Services and Solutions
- ✓ Information and Communication Technology
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Healthcare unit

Our healthcare unit specialises in the sourcing, supply and maintenance of medical equipment for laboratory, imaging, ICU, surgery and scientific research.

CONTACT

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Our partners



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For Nigeria to achieve its targets for the reduction of child mortality, which form MDG 4, Nigeria should have reduced under-five deaths per 1,000 live births to 71 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 117 deaths per 1,000 live births and measles immunisation at 59 per cent. Although substantial progress in terms of child mortality has been made since 1990, Nigeria is unlikely to meet this target when the 2015 data is analysed. The target for measles immunisation is also unlikely to be met.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. In Nigeria, maternal mortality should fall to 275 cases per 100,000 live births. In 2013 Nigeria had an adjusted maternal mortality ratio of 550 deaths per 100,000 live births (this figure was estimated at 630 deaths per 100,000 by UN agencies/World Bank in 2010). This target is unlikely to be met. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional, so this is very unlikely to have been achieved in the specified timescale.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other communicable diseases. Nigeria's prevalence of HIV was 3.2 per cent in 2012 (in the 15–49 age group). While this figure is still high, the period 2010–12 has seen a consistent and gradual decrease in the prevalence of the disease. The number of deaths from malaria in the country has seen an improvement since 2007. There has been an overall increase in estimated incidence of tuberculosis (TB) in the period 1990–2013 and a slight decrease in estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease in the period 1990–2013. Consequently, Nigeria is unlikely to achieve MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than a third of health care in Nigeria (31 per cent) was government funded in 2012. The remaining 69 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 6.1 per cent of GDP in 2012. Expenditure by government amounts to US\$29 per capita.

Primary health care continues to be the priority for health development in Nigeria. A 2013 study in the *Journal of Public Health in Africa* found that the most common barriers to people accessing primary health care were lack of essential drugs at clinics, the high cost of services and lack of facilities close enough to their homes for them to access without a long journey. Most were more likely to visit the nearest pharmacy instead. There are also major differences in the quality and provision of health care between the different states and between rural and urban areas.

The Nigerian National Health Insurance Scheme, financed by employer and employee contributions, is intended to ensure that every Nigerian has access to good health care services and to protect families from the financial hardship of a large medical bill. However, only about three per cent of the population is covered by

it (2012). The government is currently trying to broaden the scheme to ensure a far greater proportion of the population is covered. It is a stated aim of the Nigerian government to achieve universal health coverage.

The Who Country Co-operation Strategic Agenda (2014–19) identified strengthening health systems based on a primary health care approach as one of its main priorities.

Nigeria was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1993 and has written the covenant into law. It includes ‘the right of everyone to the enjoyment of the highest attainable standard of physical and mental health’. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 4.7 million people in Nigeria are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person living in Nigeria can be expected to live for an additional 14 years, on average (2013). Nigeria’s Ekiti State Social Security Scheme dates back to 2011. Today, monthly pension credits are paid in Ekiti State by the state at a rate of US\$32 per

Population over 65



person (2007–12) on means-tested basis. Overall, public pension spending is equivalent to 0.9 per cent of the country’s total economic output (2004).

The elderly are generally cared for by members of their extended family, but there are some old people’s homes – both private and charitably run – in urban areas.

Further information

Federal Ministry of Health: www.fmh.gov.ng

Commonwealth Health Online:
www.commonwealthhealth.org/health/africa/nigeria



Pakistan



The designations and the presentation of material on this map, based on UN practice, do not imply the expression of any opinion whatsoever on the part of the Commonwealth Secretariat or the publishers concerning the legal status of any country, territory or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. There is no intention to define the status of Jammu and/or Kashmir, which has not yet been agreed on by the parties.

KEY FACTS

Joined Commonwealth:	1947 (left in 1972, rejoined in 1989)
Population:	182,143,000 (2013)
GDP p.c. growth:	1.8% p.a. 1990–2013
GNI p.c.:	US\$1,380 (2013)
UN HDI 2014:	World ranking 146
Life expectancy:	67 years (2013)
Under-five mortality rate (per 1,000 live births):	86 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	1% of GDP (2012)

General information

Pakistan lies just north of the Tropic of Cancer, bordering (clockwise from west) Iran, Afghanistan, China and India. The Arabian Sea lies to the south. The country comprises four provinces: (from south to north) Sindh, Balochistan, Punjab and Khyber Pukhtoonkhwa (formerly North-West Frontier Province). The territory adjoining Khyber Pukhtoonkhwa is known as the Federally Administered Tribal Areas, and the Pakistani-administered parts of Jammu and Kashmir in the north-east as Azad Kashmir and Northern Areas.

Climate: Extreme variations of temperature. The northern mountains are cold, with long and severe winters. Temperatures on the Balochistan plateau are high. Along the coastal strip, the climate is modified by sea breezes. In the rest of the country, the temperature rises steeply in summer. Seasons are: cold season (December–March), hot season (April–June), monsoon season (July–September) and post-monsoon season (October–November). Rainfall varies from 760–1,270 mm in the Himalayan foothills to 210 mm in Balochistan.

Environment: The most significant issues are soil erosion, deforestation, desertification, and water pollution with untreated sewage and industrial waste, and through the use of commercial pesticides.

Population: 182,143,000 (2013); density varies from more than 230 people per sq km in Punjab to 13 in Balochistan. Some 38 per cent of people live in urban areas and 21 per cent in urban agglomerations of more than a million people. The population growth rate stood at 2.1 per cent p.a. between the years of 1990 and 2013. In 2012 the birth rate was 25 per 1,000 people (43 in 1970) and life expectancy was 67 years (54 in 1970).

The population comprises Punjabis (44 per cent), Pashtuns (15 per cent), Sindhis (14 per cent), Saraikis (11 per cent), Muhajirs (7.6 per cent), Balochis (3.6 per cent) and other smaller groups, including tribal groups in the more remote northern areas.

Economy: Pakistan is classified as a lower-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Pakistan was 69 deaths per 1,000 live births in 2013, with an under-five mortality rate of 86 deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1990. Although this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of 46 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent causes of death for children below the age of five years were prematurity (19 per cent), acute respiratory infections (17 per cent) and intrapartum-related complications (13 per cent). Other contributory causes were diarrhoea (11 per cent), neonatal sepsis (ten per cent), injuries (seven per cent), congenital anomalies (five per cent) and measles (one per cent). In 2013 Pakistan had an adjusted maternal mortality ratio of 170 deaths per 100,000 live births (this figure was estimated at 260 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) in Pakistan accounted for an estimated 51 per cent of all mortality in 2012. The most prevalent NCDs in Pakistan are cardiovascular diseases, which accounted for 19 per cent of total deaths across all

age groups in 2012. Cancer, non-communicable variants of respiratory diseases and diabetes contributed eight per cent, six per cent and three per cent to total mortality, respectively (2012). Injuries accounted for 11 per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions in Pakistan accounted for an estimated 38 per cent of all mortality in 2012. The prevalence of HIV in Pakistan, as a percentage of people aged 15–49 years, was less than 0.1 per cent in 2013, a figure which has remained unchanged since 1990. In 2012 there were 290,781 reported cases of malaria in the country. The number of reported cases of malaria had been increasing consistently since 2008, before dropping slightly in 2011–12; the number of fatalities from the disease rose significantly in 2011–12, from four deaths to 260. There has been no significant reduction in estimated incidence of tuberculosis (TB) in the period 1990–2013, while estimated mortality (when mortality data excludes cases comorbid with HIV) has nearly halved over this time.

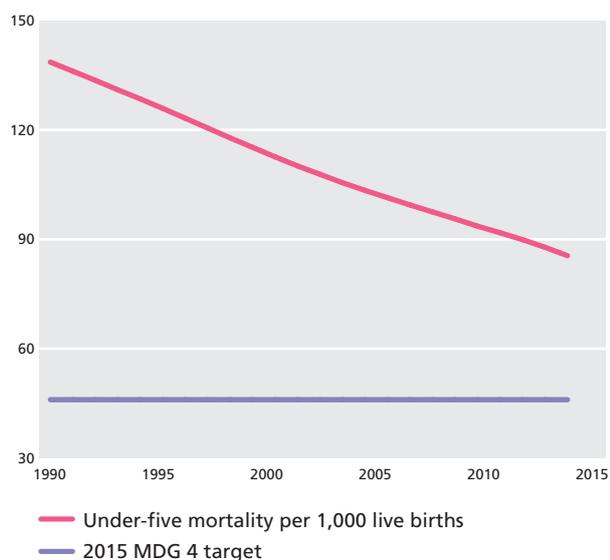
The most commonly diagnosed mental illnesses in Pakistan are mood disorders and neurotic disorders. A strong link has been made between continued violence in the country and mental health problems.

Health systems: In 2012 government expenditure on health was one per cent of GDP, equivalent to US\$12 per capita. In the most recent survey, conducted between 1997 and 2010, there were 83 doctors, and 57 nurses and midwives per 100,000 people. Additionally, in 2013, 52 per cent of births were attended by qualified health staff and 61 per cent of one-year-olds were immunised with one dose of measles. In 2012, 91 per cent of people were using an improved drinking water source and 48 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Pakistan has five pharmaceutical personnel per 100,000 people.

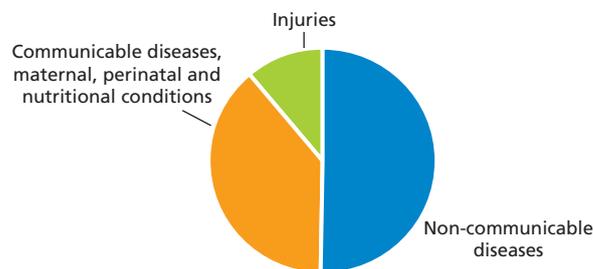
Pakistan’s Ministry of Health reports that there are almost 1,000 hospitals along with 5,000 basic health centres operating throughout the country. The largest hospitals are called tertiary care facilities, of which there are around 20, mostly located in the major cities. The private medical sector is largely funded using a fee-for-service system and serves some 70 per cent of the country’s population.

This high uptake of private health care is partly due to many employers, such as the army and Pakistan Railways, offering in-house medical provision.

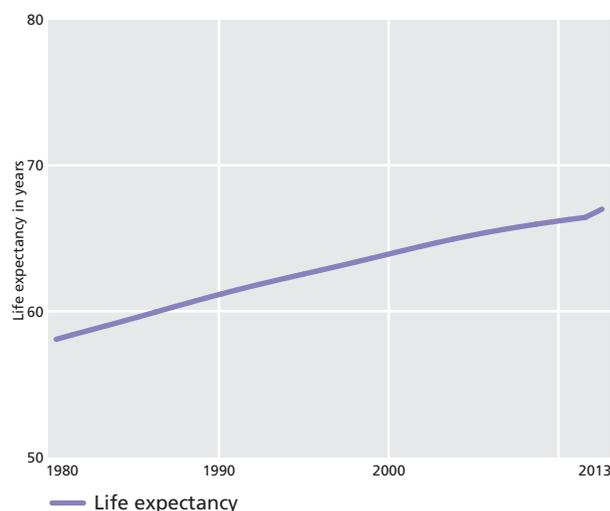
Under-five mortality



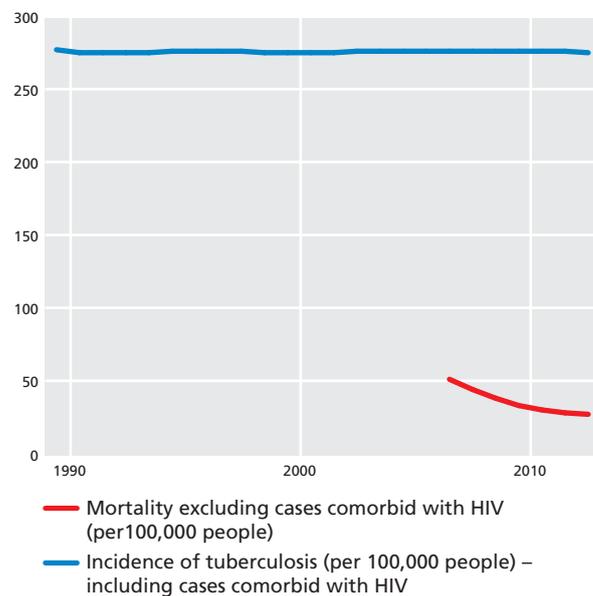
Mortality by cause of death (% of all deaths), 2012



Life expectancy



Tuberculosis: Incidence and mortality



Pakistan has a small but growing pharmaceutical industry, which sold around US\$1.8 billion worth of products in 2010. The industry is split between domestic and multinational companies, with large multinationals having specific Pakistani divisions operating in the country.

The Pakistan Mental Health Ordinance 2001 is the most recent revision of legislation relating to mental health issues, replacing the 1912 Lunacy Act.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Pakistan to achieve its targets for the reduction of child mortality, which forms MDG 4, it should have reduced under-five deaths per 1,000 live births to 46 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 86 deaths per 1,000 live births and measles immunisation at 61 per cent, which makes Pakistan unlikely to meet these targets.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Pakistan, the maternal mortality should fall to 123 cases per 100,000 live births. In 2013 Pakistan had an adjusted maternal mortality ratio of 170 deaths per 100,000 live births (this figure was estimated at 260 deaths per 100,000 by UN agencies/World Bank in 2010). Based on the data reported by the country, Pakistan's maternal mortality target is unlikely to be achieved. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2013 this figure stood at 52 per cent, so this target is also unlikely to be met.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other communicable diseases. The prevalence of HIV/AIDS is very low, standing at less than 0.1 per cent of the population in 2013; however, it has shown no improvement since the MDGs came into action. Meanwhile, estimated mortality from TB (when mortality data excludes cases comorbid with HIV) has shown noticeable improvement – it has almost halved since 1990. Some work on HIV prevalence is still required if the country is to achieve MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

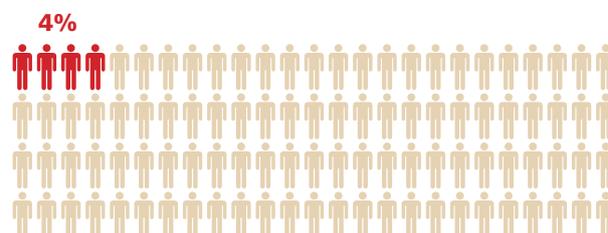
Less than a third of health care in Pakistan (31 per cent) was government funded in 2012. The remaining 69 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 3.1 per cent of GDP in 2012. Expenditure by government amounts to US\$12 per capita.

Pakistan has a multi-tiered and mixed health care delivery system, which is administered mainly by the private sector. Public health facilities are adequate in urban sectors of society, but lacking in more rural areas. Following a consultative process with a consortium of civil service organisations, development experts and marginalised people, a Post-2015 Development Framework Report on Pakistan was compiled. The report, conducted by Global Call to Action Against Poverty and Beyond 2015, looked at specific priority areas for the country in the years following the MDGs. Access to health care facilities in Pakistan was highlighted in the report as being of particular concern and it was suggested that efforts are needed to improve availability of health care, in particular maternal and neonatal facilities, in rural areas.

Pakistan has signed and ratified the International Covenant on Economic, Social and Cultural Rights, which includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around eight million people in Pakistan are over the age of 65 – four per cent of the total population (2013). At the age of 60 a person in Pakistan can be expected to live for an additional 17 years, on average (2013). Overall, public pension spending is equivalent to 0.5 per cent of the country's total economic output (2012).

Population over 65



There are more than 15 non-governmental organisations (NGOs) working to provide housing and medical care services to the elderly in Pakistan, including shelter and residential care, medical care, home visits and activity provision. The Edhi Foundation Old Homes, Gills Shelter Old Age Home and Old Age Happy Homes are just a few providers of residential care.

Further information

Ministry of National Health Services Regulation and Coordination: www.pakistan.gov.pk

Commonwealth Health Online: www.commonwealthhealth.org/health/asia/pakistan



Papua New Guinea



KEY FACTS

Joined Commonwealth:	1975
Population:	7,321,000 (2013)
GDP p.c. growth:	1.9% p.a. 1990–2013
GNI p.c.:	US\$2,010 (2013)
UN HDI 2014:	World ranking 157
Life expectancy:	62 years (2013)
Under-five mortality rate (per 1,000 live births):	61 (2013)
Largest contribution to mortality:	Respiratory infections
Government health expenditure:	4.3% of GDP (2012)

General information

The Independent State of Papua New Guinea in the South Pacific shares a land border with Indonesia; its other near neighbours are Australia to the south and Solomon Islands to the east. Papua New Guinea includes the eastern half of the world's second biggest island, New Guinea, bordering the Indonesian province of Irian Jaya to the west. The rest of the country is made up of about 600 small islands, the chief of which are the Bismarck Archipelago, the Trobriands, the Louisiade Archipelago, the D'Entrecasteaux Islands and some of the islands in the Solomons group, including Bougainville. The country comprises 22 provinces, including the National Capital District (greater Port Moresby) and the Autonomous Region of Bougainville.

Climate: Tropical monsoon type, hot and humid all year, though somewhat cooler in the highlands. Rainfall is chiefly in December–March. High mountains receive occasional frost and even snow.

Environment: The most significant environmental issues are rainforest deforestation as a result of growing commercial demand for tropical timber; pollution from mining projects; and severe drought.

Population: 7,321,000 (2013); 13 per cent of people live in urban areas. The population growth rate stood at 2.5 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 29 per 1,000 people (42 in 1970) and life expectancy was 62 years (43 in 1970).

The people are of mixed (mostly Melanesian) race, with small communities of Polynesians on outlying atolls. There is a declining non-indigenous population (several thousand Australians and a small Chinese population).

Economy: Papua New Guinea is classified as a lower-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Papua New Guinea was 47 deaths per 1,000 live births in 2013, with an under-five mortality rate of 61 deaths per 1,000 live births in 2012. There has been a consistent decline in the under-five mortality rate since 1990. Although this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of 30 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent causes of death for children below the age of five years were acute respiratory infections (17 per cent), prematurity (13 per cent) and intrapartum-related complications (13 per cent). Other contributory causes were malaria (11 per cent), diarrhoea (nine per cent), neonatal sepsis (seven per cent), injuries (seven per cent), HIV/AIDS (one per cent) and measles (one per cent). In 2013 Papua New Guinea had an adjusted maternal mortality ratio of 220 deaths per 100,000 live births (this figure was estimated at 230 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions in Papua New Guinea accounted for an estimated 48 per cent of all mortality in 2012. The prevalence of HIV in Papua New Guinea, as a percentage of the population aged 15–49 years, stood at 0.7 per cent in 2012. There has been no notable decrease in the prevalence of HIV/AIDS since records began in the country in 1990. In 2012 there were 150,195 reported cases of malaria in the country, a sharp increase from 84,060 in 2011, before which time it was largely consistent. The number of deaths from malaria has experienced an overall decline by more than a third in the period 2006–11. There has been an overall increase in the estimated incidence of tuberculosis (TB) in Papua New Guinea since 1990, although this has been accompanied by an overall decrease in estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease.

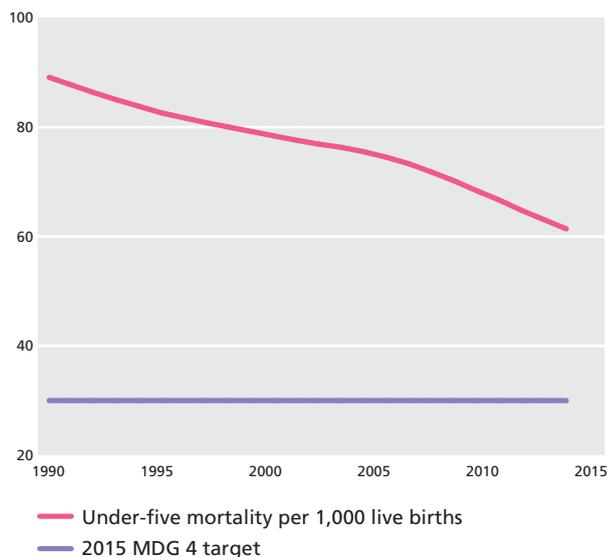
Non-communicable diseases (NCDs) in Papua New Guinea accounted for an estimated 42 per cent of all mortality in 2012. The most prevalent NCDs in Papua New Guinea are cancer and cardiovascular diseases, which accounted for nine and eight per

cent of total deaths across all age groups in 2012, respectively. Non-communicable variants of respiratory diseases and diabetes both contributed six per cent to total mortality (2012). Injuries accounted for ten per cent of deaths in 2012.

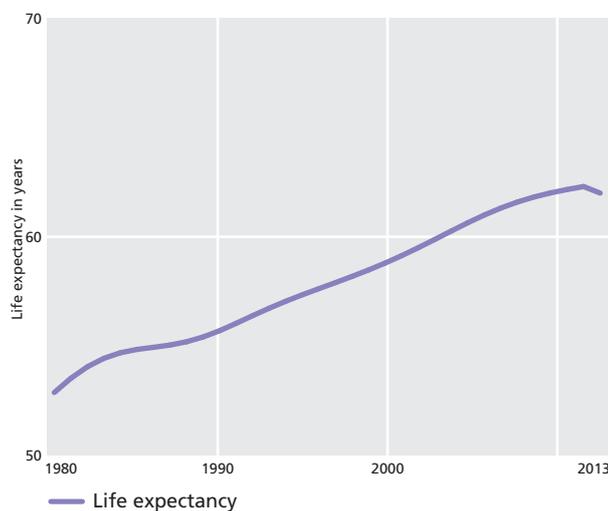
There is not enough recent data to determine the most commonly diagnosed mental illness in Papua New Guinea. Studies have found that the socio-cultural and economic changes occurring in Papua New Guinea, and the levels of violence in society, have made a significant impact on levels of mental disorder.

Health systems: In 2012 government expenditure on health was 4.3 per cent of GDP, equivalent to US\$94 per capita. In the most recent survey, conducted in the period 1997 to 2011, there were five doctors, and 46 nurses and midwives per 100,000 people. Additionally, in 2011, 43 per cent of births were attended by qualified health staff and in 2013, 70 per cent of one-year-olds were immunised with one dose of measles. In 2013, 40 per cent of people were using an improved drinking water source and, in 2012, 19 per cent had access to adequate sanitation facilities.

Under-five mortality



Life expectancy



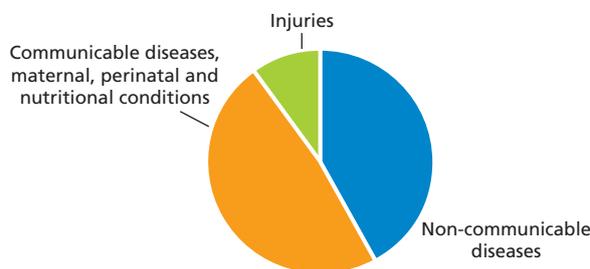
Health services in Papua New Guinea are primarily financed by public funds and provided by the government and the church through hospitals, dispensaries and clinics. The rugged terrain and resultant challenges on infrastructure make providing effective health services nationwide, especially in rural areas, problematic. Port Moresby General Hospital is the country's main teaching and referral hospital. It houses a hyperbaric recompression chamber for diving emergencies and is the only hospital in the country to have a CT scanner. The hospital is also a major treatment centre for AIDS. Papua New Guinea relies heavily on pharmaceutical imports from nearby developed countries, such as Australia. The Pharmaceutical Services Standards Branch of the National Department of Health regulates the import, export, wholesale and retail of medicines.

The most recent act relating to mental health in Papua New Guinea is the Public Health (Mental Disorders) Regulation 1962. The Public Health Act of 1973 also contains sections on mental health. The National Mental Health Policy was launched in 2011.

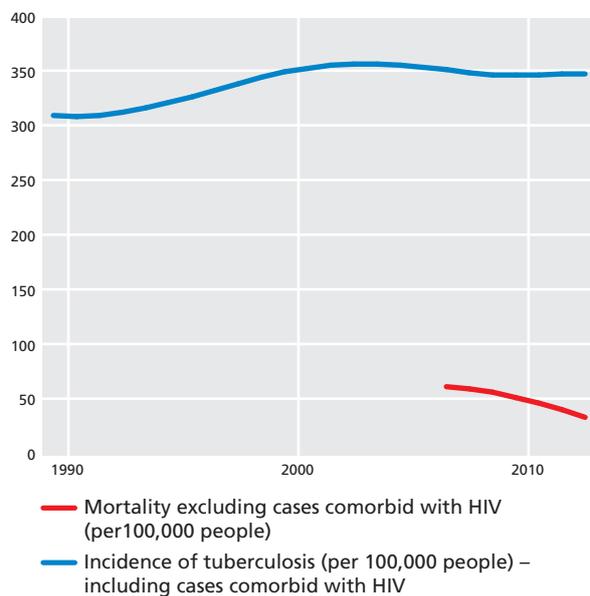
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Papua New Guinea to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 30 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



2013 under-five mortality stood at 61 deaths per 1,000 live births – twice the target figure – and measles immunisation at 70 per cent, making it unlikely that Papua New Guinea will meet the targets for this goal.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Papua New Guinea, the maternal mortality rate should fall to 98 cases per 100,000 live births. In 2013 Papua New Guinea had an adjusted maternal mortality ratio of 220 deaths per 100,000 live births (this figure was estimated at 230 deaths per 100,000 by UN agencies/World Bank in 2010). Although the rate is decreasing, it is still more than double the target figure and so is very unlikely to hit the target. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2011 this figure stood at 43 per cent, so attainment of this target is also looking unrealistic.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other communicable diseases. There has been no notable reduction in HIV/AIDS prevalence in Papua New Guinea since 2000. Work is needed to ensure that HIV/AIDS does not become a generalised epidemic – the UN considers an epidemic as ‘generalised’ when more than one per cent of the population is HIV-positive. There was a significant overall increase in reported cases of malaria in 2011–12, however, this corresponded with a reduction in deaths from the disease, which is encouraging. There has been an overall increase in the estimated incidence of, and only a slight reduction in estimated mortality (when mortality data excludes cases comorbid with HIV) from, TB since 1990. Accordingly, progress in these areas is required and the country is unlikely to achieve MDG 6 by 2015.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than a fifth of health care in Papua New Guinea (17 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 5.2 per cent of GDP in 2012, of which 83 per cent (US\$94 per capita) was covered by the government.

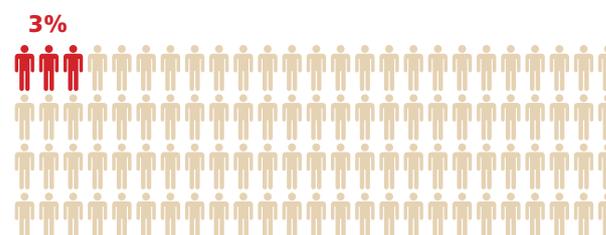
Lack of local or easily accessible facilities is the main barrier stopping people in the most rural areas from accessing health care. In a report on the Papua New Guinea post-2015 development agenda entitled *The Future We Want – Voices from the People of Papua New Guinea*, the introduction of health centres throughout

rural areas was recommended. The lack of clinics in rural areas is, among other things, responsible for women dying during childbirth before they can reach the nearest health centre. For serious conditions, travel to Port Moresby General Hospital would usually be necessary. Although treatment there is free, the expense of travelling to the capital is prohibitive for some.

Papua New Guinea was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 2008 and has written the covenant into law. It includes ‘the right of everyone to the enjoyment of the highest attainable standard of physical and mental health’. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 213,000 people in Papua New Guinea are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person living in Papua New Guinea can be expected to live for an additional 24 years, on average (2013). Papua New Guinea’s Old Age and Disabled Pension Scheme dates back to 2009 and is in place in New Ireland only. Today, monthly pension credits in New Ireland are paid by the state at a rate of US\$14 per person (2007–12) on a universal basis. Overall, public pension spending is equivalent to 0.2 per cent of the country’s total economic output (2005).

Population over 65



In tribal areas, elderly people are usually cared for by members of their extended family, but traditions vary between ethnic groups. Prime Minister Peter O’Neill has been championing the idea of a nationwide pension for people over 65, most likely means tested, as a safety net for those who do not have family living locally to care for them.

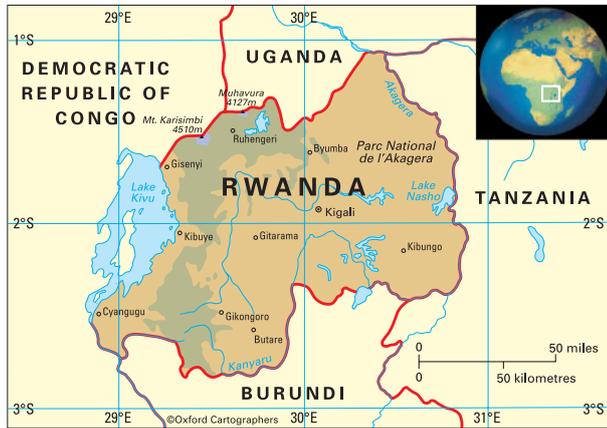
Further information

Department of Health: www.health.gov.pg

Commonwealth Health Online:
www.commonwealthhealth.org/pacific/papua_new_guinea



Rwanda



KEY FACTS

Joined Commonwealth:	November 2009
Population:	11,777,000 (2012)
GDP p.c. growth:	2.2% p.a. 1990–2013
GNI p.c.:	US\$620 (2013)
UN HDI 2014:	World ranking 151
Life expectancy:	64 years (2013)
Under-five mortality rate (per 1,000 live births):	52 (2013)
Largest contribution to mortality:	Communicable diseases; maternal, perinatal and nutritional conditions
Government health expenditure:	6.1% of GDP (2013)

General information

The Republic of Rwanda is a landlocked country with land borders with four countries: (clockwise from the north) Uganda, United Republic of Tanzania, Burundi and Democratic Republic of Congo.

Water covers 1,390 sq km of the country; the largest lakes include Bulera, Ihema, Kivu (straddling the border with the Democratic Republic of Congo), Mugesera and Muhazi, and there are many rivers. The country comprises five provinces.

Climate: Though the country is close to the Equator, the climate is tempered by altitude; it is hot and humid in the valleys, and drier and cooler in the higher elevations. The rainy seasons are March–May and October–November; the hottest season is August–September.

Environment: The most significant environmental issues are drought, limiting the potential for agriculture; overgrazing; soil erosion and degradation; and deforestation due to the almost universal use of wood as a fuel.

Population: 11,777,000 (2013); 27 per cent of people live in urban areas. The population growth rate stood at 2.1 per cent p.a. 1990–2012. In 2013 the birth rate was 35 per 1,000 people (53 in 1970) and life expectancy was 64 years (44 in 1970).

The main ethnic groups are Hutus, comprising an estimated 85 per cent of the population; Tutsis (14 per cent); and Twa (less than one per cent). Censuses carried out since the conflict of the 1990s have not included ethnicity.

Economy: Rwanda is classified as a low-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Rwanda was 37 deaths per 1,000 live births in 2013, with an under-five mortality rate of 52 deaths per 1,000 live births in 2012. There has been an overall decline in the under-five mortality rate since 1994, with consistent reduction seen from 1998. Prior to this date there was an increase in under-five mortality from 152 deaths per 1,000 live births in 1990 to 288 deaths per 1,000 live births in 1994, coincident with the Rwandan genocide. The recent decline is encouraging, with the under-five mortality rate approaching the country's target of 51 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent causes of death for children below the age of five years were acute respiratory infections (18 per cent), intrapartum-related complications (13 per cent) and prematurity (12 per cent). Other contributory causes were diarrhoea (ten per cent), injuries (eight per cent), neonatal sepsis (seven per cent), congenital anomalies (seven per cent), malaria (four per cent), measles (one per cent) and HIV/AIDS (one per cent). In the period 2007–11 Rwanda had a mortality ratio of 320 deaths per 100,000 live births (this figure was estimated at 340 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions in Rwanda accounted for an estimated 63 per cent of all mortality in 2012. The prevalence of HIV in Rwanda, as a percentage of people aged 15–49 years, stood at 2.9 per cent in 2013. Although still at general epidemic levels, HIV prevalence has halved from 5.9 per cent to 2.9 per cent in the period 1990–2013. In 2012 there were 483,470 cases of malaria in the country; rates have remained largely the same in the period 2006–12, although there has been considerable fluctuation. The number of deaths from malaria has shown a significant overall decline in 2006–12. The estimated incidence of and estimated mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis (TB) has seen a significant decrease in the period 1996–2013, and an overall decrease since 1990.

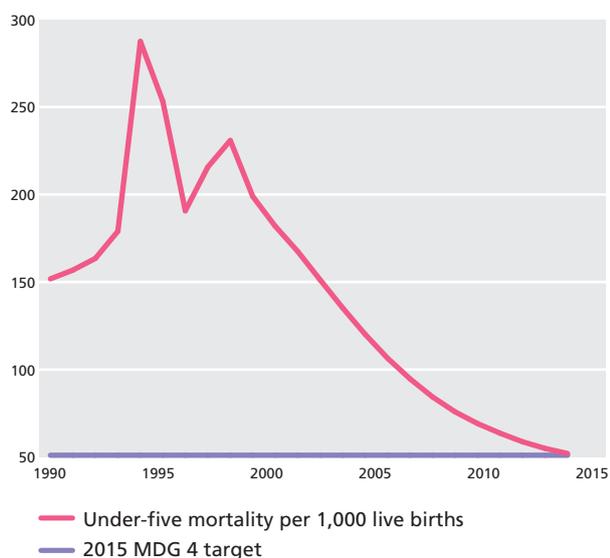
Non-communicable diseases (NCDs) in Rwanda accounted for an estimated 29 per cent of all mortality in 2008. The most prevalent NCDs in Rwanda are cardiovascular diseases, which accounted for 12 per cent of total deaths across all age groups in 2008. Cancer,

non-communicable variants of respiratory diseases and diabetes contributed five per cent, three per cent and two per cent to total mortality, respectively (2008).

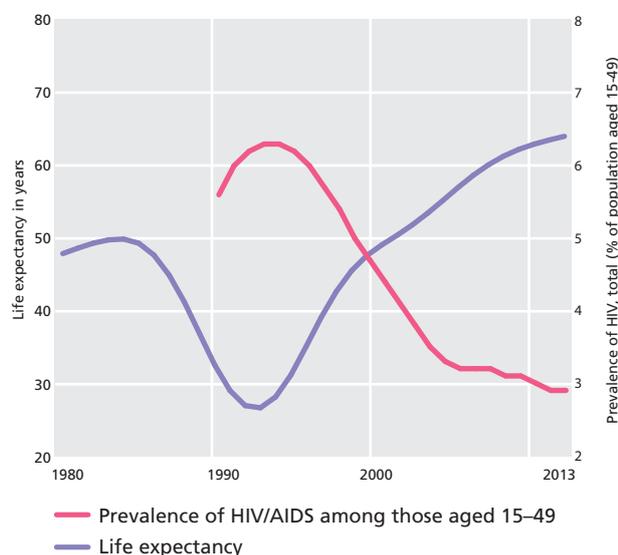
The most commonly diagnosed mental illness in Rwanda is post-traumatic stress disorder, which affects 29 per cent of the country's population (2011).

Health systems: In 2012 government expenditure on health was 6.1 per cent of GDP, equivalent to US\$38 per capita. In the most recent survey, conducted between 1997 and 2010, there were six doctors, and 69 nurses and midwives per 100,000 people. Additionally, in 2010, 69 per cent of births were attended by qualified health staff and in 2013, 97 per cent of one-year-olds were immunised with one dose of measles. In 2012, 71 per cent of people were using an improved drinking water source and 64 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Rwanda has fewer than 0.5 pharmaceutical personnel per 100,000 people.

Under-five mortality



Life expectancy and HIV/AIDS

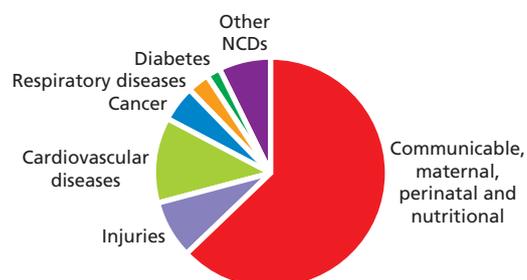


Rwanda's health and medical sector is well resourced, with health centres, clinics and dispensaries, as well as government-owned and private hospitals. The health system consists of three levels of service provision – central, intermediary and peripheral. The central level includes the central directorates and programmes of the Ministry of Health and the national referral hospitals. The main hospitals include the University Central Hospital and King Faisal Hospital, both located in Kigali, and the University Central Hospital of Butare, in Rwanda's second city. There are 43 district hospitals. The Ministry of Health maintains a registry of all Rwandan health facilities.

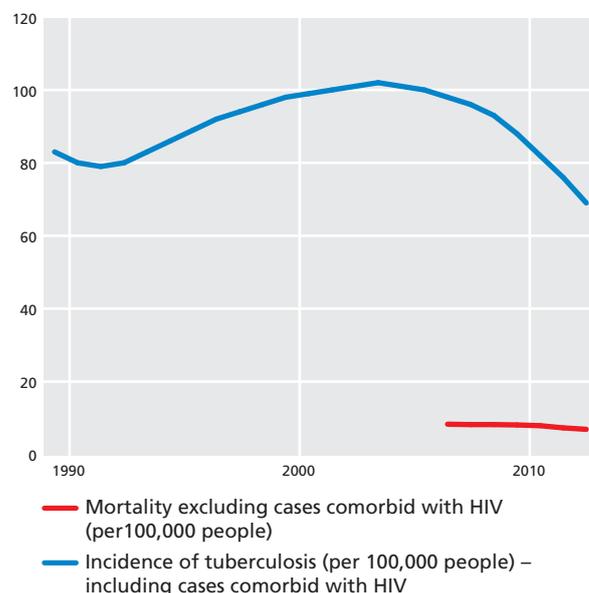
Rwanda relies entirely on imports to meet its pharmaceutical requirements. The Pharmacy Task Force of the Ministry of Health is responsible for the protection of the population by supervising the availability, effectiveness and quality of pharmaceutical products.

The prevalence of some mental health conditions, such as major depressive disorders and post-traumatic stress disorders, is far above the international average – a legacy of the 1994 genocide. The National Health Policy considers mental health as a priority and states that mental health care services should be included in all health planning in the national health system, as well as being taken into account at the community level.

Mortality by cause of death (% of all deaths), 2008



Tuberculosis: Incidence and mortality



Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Rwanda to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 51 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 52 deaths per 1,000 live births and measles immunisation at 97 per cent, so both parts of this target are close to being met.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Rwanda, the maternal mortality rate should fall to 228 cases per 100,000 live births. In 2013 Rwanda had an adjusted maternal mortality ratio of 320 deaths per 100,000 live births (this figure was estimated at 340 deaths per 100,000 by UN agencies/World Bank in 2010), so Rwanda is unlikely to meet this target. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2010 this figure stood at 69 per cent, making it unlikely that this target will be met.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Since 1990, prevalence of HIV has shown a continuous decline and by 2011 the figure had halved. In 2013 the percentage of the population affected by HIV was 2.9 per cent. There was a significant overall reduction in the estimated incidence of TB between 1996 and 2012. The number of deaths from malaria in the country has also shown a significant overall decrease in the period 2001–11. Consequently, Rwanda may achieve MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

More than two-fifths of health care in Rwanda (43 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 10.7 per cent of GDP in 2012, of which 57 per cent (US\$38 per capita) was covered by the government.

The Rwandan Constitution states that all citizens have rights in relation to health. The overall objective of the current National Health Policy is to strengthen policies, resources and management mechanisms of health support systems to ensure the optimal performance of the health programmes.

Rwanda's health system is paid for by state funds and individuals' contributions through health insurance and direct fees for services. The biggest health insurance scheme is the Community-Based

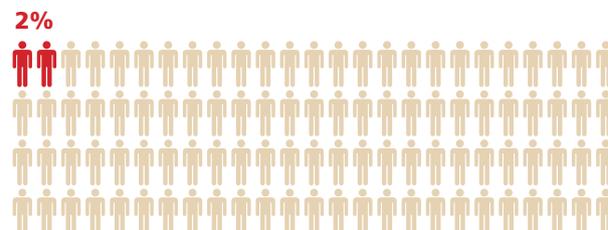
Health Insurance Scheme (Mutuelles de Sante), estimated to cover 91 per cent of the population. The very poorest, however, struggle to pay even the modest fee (US\$2 a year) required to join the scheme. Rwanda also suffers from a shortage of doctors and other health professionals, mainly stemming from the genocide, during which white-collar workers were targeted.

The WHO Country Co-operation Strategic Agenda (2009–13) identifies the need to put in place a responsive, client-centred, technologically driven and sustainable health system to allow Rwanda to move towards universal access to demand-driven, quality health services, with protection from catastrophic health expenditure. Other priorities are to improve maternal and child health, as well as reducing the burden of communicable diseases.

Rwanda was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1975 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 380,000 people in Rwanda are over the age of 65 – two per cent of the total population (2013). At the age of 60 a person living in Rwanda can be expected to live for an additional 18 years, on average (2013). Overall, public pension spending is equivalent to 0.7 per cent of the country's total economic output (2005).

Population over 65



Traditionally, elderly people were cared for by extended family members, but the genocide has left some older people without families. The Christian not-for-profit organisation Bird of Paradise Ministries Rwanda runs a care home for the elderly in Kigali. Charitable organisations like the Duhozanye also provide support to vulnerable widows.

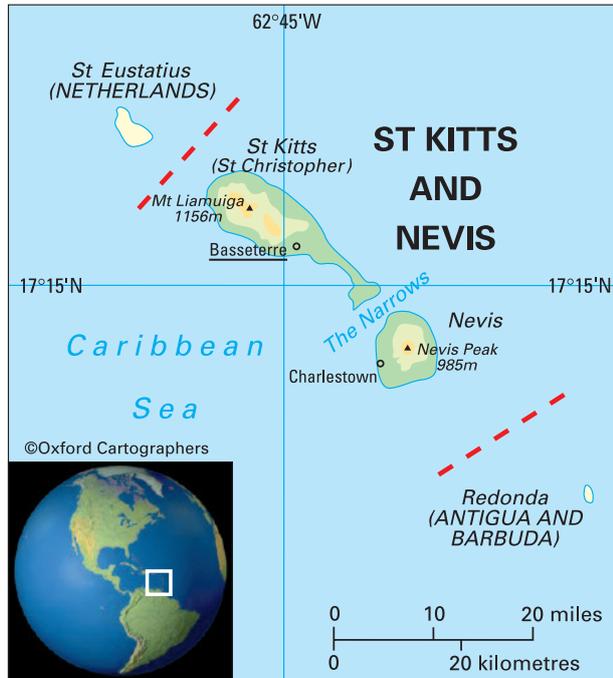
Further information

Ministry of Health: www.moh.gov.rw

Commonwealth Health Online:
www.commonwealthhealth.org/health/africa/rwanda



St Kitts and Nevis



KEY FACTS

Joined Commonwealth:	1983
Population:	54,000 (2013)
GDP p.c. growth:	1.6% p.a. 1990–2013
GNI p.c.:	US\$13,460 (2013)
UN HDI 2014:	World ranking 73
Life expectancy:	75 years (est 2012)
Under-five mortality rate (per 1,000 live births):	10 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	2.3% of GDP (2012)

General information

The two-island country of St Kitts and Nevis lies in the northern part of the Leeward Islands group of the Lesser Antilles in the Eastern Caribbean. The two islands are separated by a channel some 3 km in width.

Climate: Tropical, cooled by the north-east trade winds. There is no distinct rainy season. The heat is not searing; the highest recorded temperature is 33°C. Hurricanes may occur in June–November.

Population: 54,000 (2013); some 12,000 live on Nevis; 32 per cent of people live in urban areas. The population growth rate

stood at 1.2 per cent p.a. between the years of 1990 and 2013. In 2012 the birth rate was 14 per 1,000 people (est 26 in 1970) and life expectancy was estimated at 75 years.

The population is mainly of mixed African and European descent, with a UK-descended minority.

Economy: St Kitts and Nevis is classified as a high-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in St Kitts and Nevis was eight deaths per 1,000 live births in 2013, with an under-five mortality rate of ten deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1990, and St Kitts and Nevis has met the target of reducing under-five mortality by two-thirds, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the most prominent known causes of death for children below the age of five years were birth asphyxia (31 per cent) and prematurity (21 per cent). Other contributory causes were congenital anomalies (ten per cent), neonatal sepsis (ten per cent) and injuries (six per cent). St Kitts and Nevis has universal maternal health care.

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 83 per cent of all mortality in St Kitts and Nevis in 2008. The most prevalent NCDs are cardiovascular diseases, which accounted for 37 per cent of total deaths across all age groups in 2008. Cancer, non-communicable variants of respiratory diseases and diabetes contributed 18 per cent, two per cent and ten per cent to total mortality, respectively (2008).

Communicable diseases along with maternal, perinatal and nutritional conditions in St Kitts and Nevis accounted for an estimated eight per cent of all mortality in 2008. A government paper on HIV/AIDS reported a cumulative 358 HIV cases (110 of which resulted in death) in the period 1984–2013. St Kitts and Nevis is a non-endemic country for malaria. Estimated incidence of and estimated mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis (TB) have risen overall since 1990, although both are lower now than they were in 1996. The current incidence rate is 4.6 incidences per 100,000 people.

The most commonly diagnosed mental illness in St Kitts and Nevis is schizophrenia, followed by mood disorders.

Health systems: In 2012 government expenditure on health was 2.3 per cent of GDP, equivalent to US\$324 per capita. In the most recent survey, conducted between 1997 and 2010, there were 110 doctors, and 471 nurses and midwives per 100,000 people. Additionally, in 2011, 100 per cent of births were attended by qualified health staff and in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2012, 98 per cent of people were using an improved drinking water source and in 2011,

96 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that St Kitts and Nevis has 50 pharmaceutical personnel per 100,000 people.

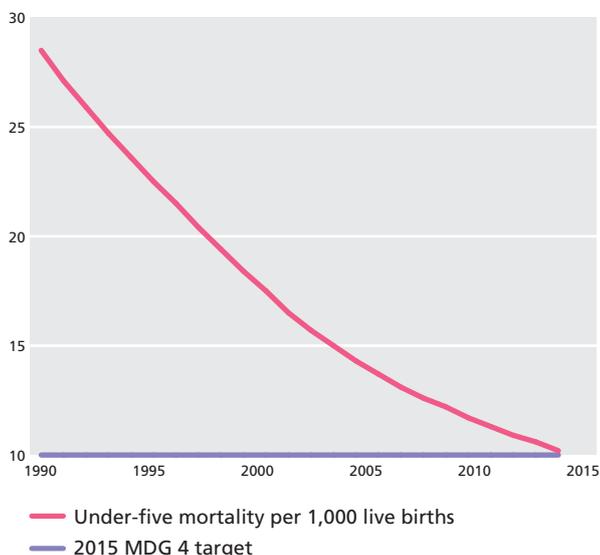
St Kitts and Nevis has four public hospitals; three are in St Kitts and one is in Nevis. Of these hospitals, the largest is the Joseph N. France General Hospital in Basseterre. There are also 17 health clinics spread across the two islands. The country has no private hospitals, but there are a number of private doctors' clinics.

The St Kitts and Nevis government is an active participant in the Eastern Caribbean Drug Service, which is a regional pooled procurement scheme for importing pharmaceuticals and medical supplies. This enables the country to maximise the value of health care services to its citizens through the advantage of collective bulk buying along with neighbouring countries. The country's pharmaceuticals industry remains largely unregulated, with the exception of dangerous drugs.

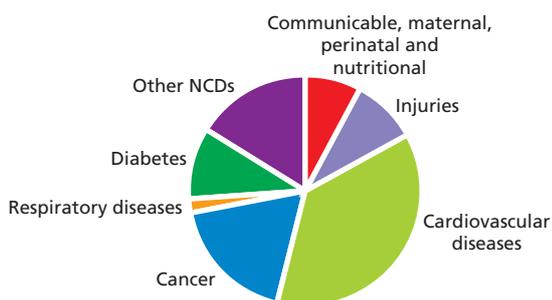
The most recent act of parliament relating to mental health in St Kitts and Nevis is the Mental Health Act 1956.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

Under-five mortality



Mortality by cause of death (% of all deaths), 2008



For St Kitts to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to ten and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at ten deaths per 1,000 live births and measles immunisation at 95 per cent. St Kitts and Nevis is well on the way to achieving MDG 4, having achieved the under-five mortality target and being close to achieving a 100 per cent measles immunisation rate.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. Part of this goal stipulates that 100 per cent of births must be attended by a skilled health professional. In the period 2007–12 this figure stood at 100 per cent in St Kitts and Nevis, and so this target has been achieved.

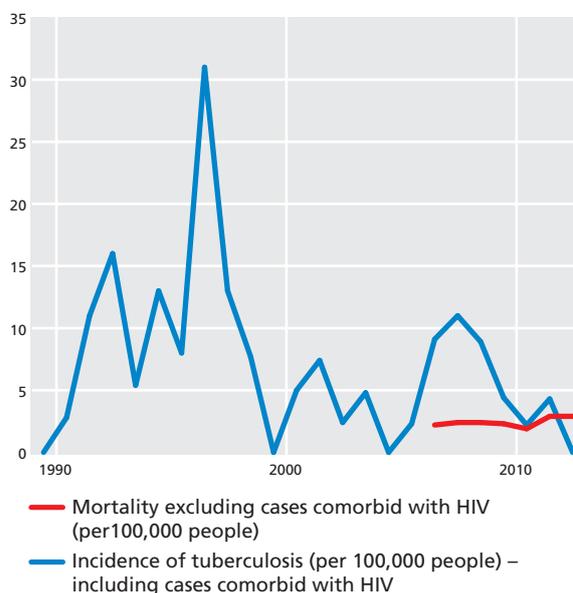
MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. There has been an overall reduction in estimated TB incidence and estimated mortality (when mortality data excludes cases comorbid with HIV) in the country in the period 1997–2010, although the rate has experienced significant fluctuation throughout this time. The overall incidence and mortality due to the disease is currently above the levels they were in 1990. There is not enough information from international agencies to confirm the country's progress towards this goal with regard to HIV/AIDS.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

A little less than two-fifths of health care in St Kitts and Nevis (39 per cent) was government funded in 2012. The remaining 61 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 5.9 per cent of GDP in 2012. Expenditure by government amounts to US\$324 per capita.

Tuberculosis: Incidence and mortality



St Kitts and Nevis has a fairly efficient primary health care system, with community clinics providing health care services to citizens at no cost; the services offered include screening for cervical cancer, family planning, and obstetrics and gynaecological care. Secondary health care services are usually provided at low cost and are free for children and the elderly. As of 2010, work place health screening programmes were being implemented across the islands.

At the time of writing, the government of St Kitts and Nevis was heavily involved in reforms to move the country towards universal health coverage. In July 2014 a National Consultation on Universal Health Coverage was convened, organised by the Ministry of Health in conjunction with the Pan American Health Organization (PAHO). PAHO observed that St Kitts and Nevis had made great moves towards universal health coverage at the primary and secondary levels, and that the political will exists in the country to move this further. The issue at present is with expanding universal health coverage to bridge gaps in administration and access to post-secondary services – lack of funding is a significant issue here.

St Kitts and Nevis is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to ensuring ‘the right of everyone to the enjoyment of the highest attainable standard of physical and mental health’.

Care of the elderly: There are social security measures in place to provide for those senior citizens who have contributed to the state social security fund. There are two types of old-age benefits available to those over the age of 62. The Age Grant is a lump sum payment, paid when a claimant fails to qualify for an Age Pension. The Age Pension is a monthly payment that is made to a person who has made the required number of contributions to the Social Security Fund and has reached the age of 62. Overall, public pension spending is equivalent to 2.6 per cent of the country’s total economic output (2006).

The PAHO 2007/08 Country Poverty Assessment Report for St Kitts and Nevis indicated that older persons were generally concerned about money, food, health care and medication, and adequate housing with amenities, respect, companionship and independence. At the time of writing, elderly citizens were entitled to free primary and secondary health care services. Additionally, the department of social assistance provides poor-relief cheques and food vouchers to indigent older persons. In 2009 there were four residential homes on the islands, three private and one public, residents included persons with dementia and Alzheimer’s disease.

Further information

Ministry of Health, Social Services, Community Development, Culture and Gender Affairs: www.sknis.info

Commonwealth Health Online: www.commonwealthhealth.org/health/americas/st_kitts_and_nevis



Saint Lucia



KEY FACTS

Joined Commonwealth:	1979
Population:	182,000 (2013)
GDP p.c. growth:	1.1% p.a. 1990–2013
GNI p.c.:	US\$7,090 (2013)
UN HDI 2014:	World ranking 97
Life expectancy:	75 years (2013)
Under-five mortality rate (per 1,000 live births):	15 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	5% of GDP (2012)

General information

Saint Lucia is part of the Windward Islands group, which form an arc jutting out from the Eastern Caribbean into the Atlantic. It lies south of Dominica and north of Barbados.

Climate: The hot tropical climate is moderated all year round by the north-east trade winds. The dry season is January–April, the rainy season May–November.

Environment: The most significant environmental issues are deforestation and soil erosion, particularly in the north of the island.

Population: 182,000 (2013); 18 per cent of people live in urban areas. The population growth rate stood at 1.2 per cent p.a. between the years 1990 and 2013. In 2013 the birth rate was 15 per 1,000 people (41 in 1970) and life expectancy was 75 years (64 in 1970).

Saint Lucia's population is mostly of mixed African and European descent.

Economy: Saint Lucia is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Saint Lucia was 13 deaths per 1,000 live births in 2013, with an under-five mortality rate of 15 deaths per 1,000 live births in 2013. There has been a decline in the under-five mortality rate since 1990. Although this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of eight deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2012 the three most prominent known causes of death for children below the age of five years were congenital anomalies (32 per cent), acute respiratory infections (18 per cent) and injuries (five per cent). Other diseases contributed 46 per cent to death in children below the age of five years. In 2013 the adjusted maternal mortality ratio in Saint Lucia was estimated at 34 deaths per 100,000 live births by UN agencies and the World Bank.

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 78 per cent of all mortality in Saint Lucia in 2008. The most prevalent NCDs in Saint Lucia are cardiovascular diseases, which accounted for 33 per cent of total deaths across all age groups in 2008. Cancer, diabetes and non-communicable variants of respiratory diseases contributed 17 per cent, 12 per cent and five per cent to total mortality, respectively (2008).

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 13 per cent of all mortality in 2008. A government paper on HIV/AIDS reported a cumulative 879 HIV cases (338 of which resulted in death) in the period 1985–2001. Saint Lucia is a non-endemic country for malaria. There has been a significant overall reduction in estimated incidence of and a slight overall reduction in estimated mortality (when mortality data excludes cases co-morbid with HIV) from tuberculosis (TB) since 1990.

The most commonly diagnosed mental illness among inpatients in Saint Lucia is schizophrenia, followed by psychosis related to substance misuse (drugs and alcohol).

Health systems: In 2012 government expenditure on health was five per cent of GDP, equivalent to US\$307 per capita. In the most recent survey, conducted between 1997 and 2010, there were 47

doctors, and 216 nurses and midwives per 100,000 people. Additionally, in 2010, 99 per cent of births were attended by qualified health staff and in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2012, 94 per cent of the country's population was using an improved drinking water source and, in 2010, 65 per cent had access to adequate sanitation facilities.

Saint Lucia has two public hospitals, St Jude's Hospital and Victoria Hospital, with the latter being the largest. There are district hospitals at Vieux Fort, Dennery and Soufriere that offer primary health care services and limited secondary care and emergency services. There are also more than 30 health centres. Saint Lucia has one privately run hospital, Tapion Hospital, and a number of other private facilities that provide specialised medical and dental services.

Saint Lucia meets its pharmaceutical requirements solely through imports. Total expenditure on pharmaceuticals was about 1.6 per cent of GDP (US\$15 million) in 2008. The government imports pharmaceuticals through the Pool Procurement Service of the

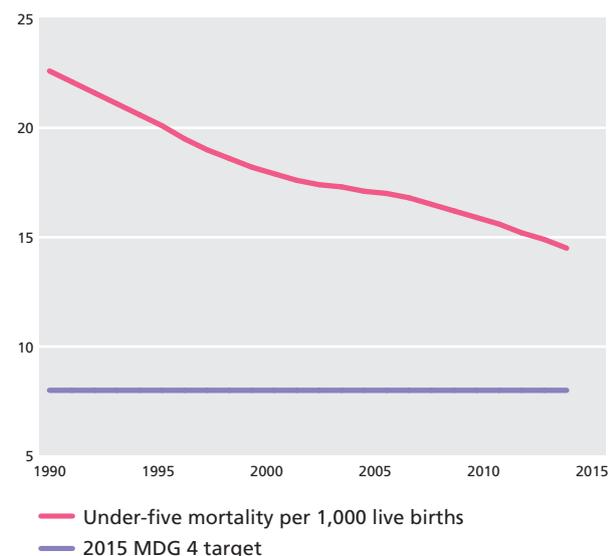
Organisation of Eastern Caribbean States (PPS/OECS), enabling it to maximise the value of health care services to Saint Lucians through the advantages of buying in bulk collectively, along with neighbouring countries. Saint Lucia's small pharmaceutical industry is regulated in part by the Pharmacy Council of Saint Lucia to ensure that it functions in the best interests of public health. The council licenses pharmacists, wholesalers, distributors/importers, exporters of medicines and pharmacies.

The most recent act of parliament relating to mental health in Saint Lucia is the Mental Health Act 1957.

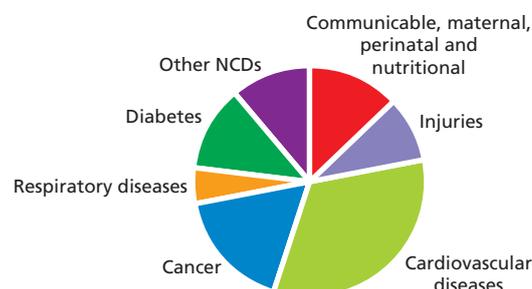
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Saint Lucia to achieve its targets for the reduction of child mortality, which forms MDG 4, it should have reduced under-five deaths per 1,000 live births to eight and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 15 deaths per 1,000 live births and measles immunisation at 99 per cent – a significant improvement from 95 per cent in 2011. For Saint Lucia to achieve its targets for MDG 4 when the 2015 data is analysed, it will need to reduce under-five mortality by a third.

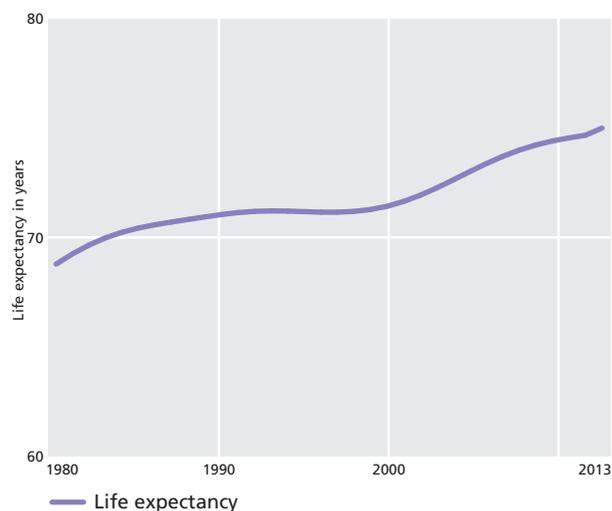
Under-five mortality



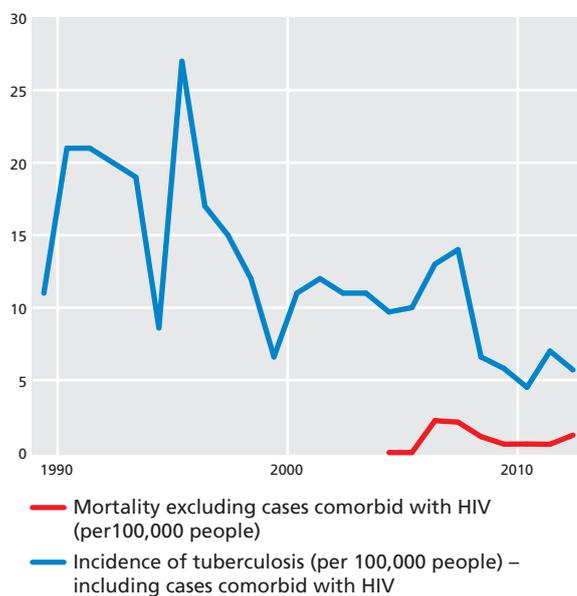
Mortality by cause of death (% of all deaths), 2008



Life expectancy



Tuberculosis: Incidence and mortality



The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Saint Lucia, the maternal mortality should fall to 16 cases per 100,000 live births. The adjusted maternal mortality ratio was estimated at 34 per 100,000 live births by UN agencies/World Bank in 2013. This figure is more than double the target set for Saint Lucia, so significant progress must be made if the target is to be achieved. Part of this goal stipulates that 100 per cent of births must be attended by a skilled health professional. In 2010 this figure stood at 99 per cent, so this target is close to being achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Saint Lucia has a low estimated incidence of tuberculosis (TB), which has seen an overall decline since 1990, so the country is making good progress towards achieving MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Almost half of all health care in Saint Lucia (45 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 8.5 per cent of GDP in 2012, of which 55 per cent (US\$307 per capita) was covered by the government.

Saint Lucia began taking steps towards implementing universal health care in 1997 when the then Minister of Health appointed a Health Sector Reform Committee and thereby started the most recent health sector reform process. The major financial reform in Saint Lucia's health sector is the Universal Health Care initiative. The initiative aims, in part, to: maximise the use of health resources and create a more efficient health system; reduce the impact of poverty by making health care affordable and accessible; and reduce the resource gap in health to allow for more comprehensive coverage of health needs.

In 2013 a post-2015 MDG report for Saint Lucia was drafted, entitled A Future for SIDS: The Post-2015 Development Agenda in Saint Lucia. The report outlines several recommendations, including overall improvement in the quality and accessibility of health services; and the provision of quality services for the care and protection of disadvantaged people, including children and the elderly.

At the time of writing, the process of achieving universal health coverage in Saint Lucia was ongoing. Most recently, in February 2015, the Ministry of Health, Wellness, Human Services and

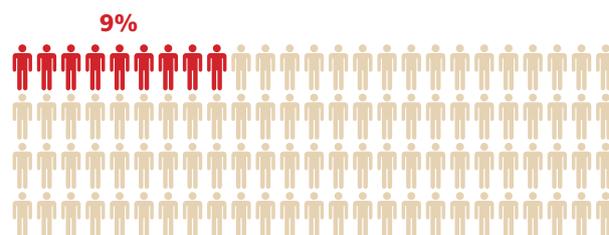
Gender Relations engaged the services of two consultants from the European Union Project to research options for the future financing of the health care system in Saint Lucia.

Saint Lucia is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to the ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Around 16,000 people in Saint Lucia are over the age of 65 – nine per cent of the total population (2013). At the age of 60 a person living in Saint Lucia can be expected to live for an additional 21 years, on average (2013). Overall, public pension spending is equivalent to 1.7 per cent of the country's total economic output (2006).

Care of the elderly in Saint Lucia is overseen by the Ministry of Health, Wellness, Human Services and Gender Relations. The ministry is responsible for the administration of Comfort Bay residential home, a government-funded senior elderly care home on the island. In January 2015, £10,000 in funding was awarded to Comfort Bay by Saint Lucia's High Commissioner to the United Kingdom Ernest Hilaire, who commented that care for the elderly is high on the government's agenda.

Population over 65



In 2015 a social protection programme was underway to help provide care for abandoned elderly citizens in Saint Lucia. The Home Care Program is a component of the National Initiative to Create Employment (NICE) and is funded in part by the government of Saint Lucia. The programme provides home care and assistance, including feeding, personal care and household tasks, to disadvantaged senior citizens on the island, many of whom are without family.

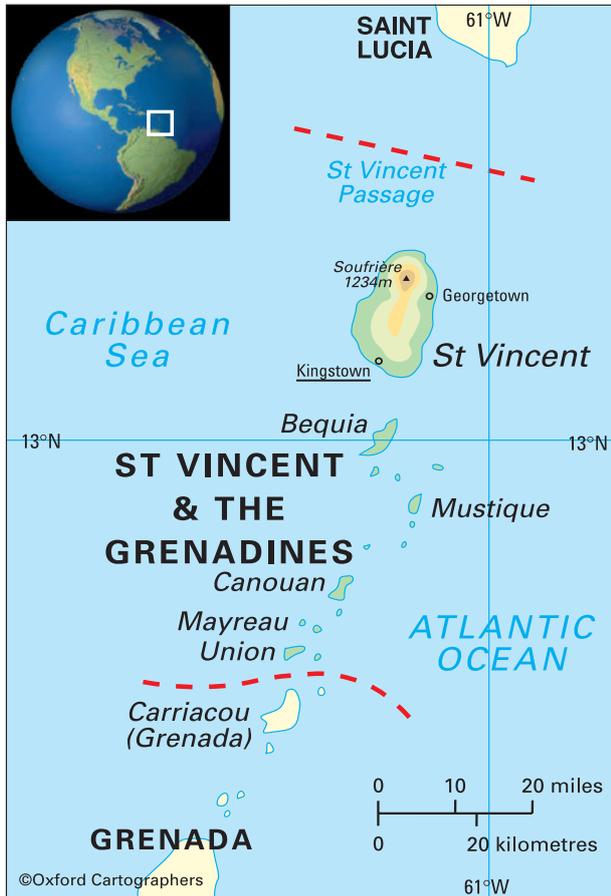
Further information

Ministry of Health, Wellness, Human Services, and Gender Relations: www.govt.lc

Commonwealth Health Online: www.commonwealthhealth.org/health/americas/st_lucia



St Vincent and the Grenadines



KEY FACTS

Joined Commonwealth:	1979
Population:	109,000 (2013)
GDP p.c. growth:	2.5% p.a. 1990–2013
GNI p.c.:	US\$6,580 (2013)
UN HDI 2014:	World ranking 91
Life expectancy:	72 years (2013)
Under-five mortality rate (per 1,000 live births):	19 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	4.3% of GDP (2013)

General information

St Vincent and the Grenadines, one of the Windward Island countries of the Eastern Caribbean, lies near the southern end of the Caribbean chain, about 97 km north of Grenada. The country comprises six parishes, one of which is the Grenadines.

Climate: Tropical, moderated by trade winds in June/July. The dry season is January–May, the rainy season May/June–September. There is significantly heavier rainfall in the mountainous interior. Tropical storms and hurricanes may occur June–November.

Environment: The most significant environmental issue is pollution of coasts and coastal waters by discharges from yachts and from industrial plants on shore.

Population: 109,000 (2013); 50 per cent of people live in urban areas. The population growth rate stood at 0.1 per cent p.a. between the years of 1990 and 2013, depressed over this period by emigration. In 2013 the birth rate was 16 per 1,000 people (40 in 1970) and life expectancy was 72 years (63 in 1970).

The population is mostly of African or mixed descent, with Indian, European and Carib minorities.

Economy: St Vincent and the Grenadines is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in St Vincent and the Grenadines was 17 deaths per 1,000 live births in 2013, with an under-five mortality rate of 19 deaths per 1,000 live births in 2013. In the period 1990–94 there was an initial decline in under-five mortality and, since 1994, the rate has been slowly and consistently in decline. The under-five mortality in St Vincent and the Grenadines is not yet in line with the country's target of eight deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the greatest known cause of mortality for children under five years was prematurity, resulting in 37 per cent of deaths. Other contributory causes were intrapartum-related complications (12 per cent), congenital anomalies (11 per cent), injuries (six per cent), acute respiratory infections (two per cent), neonatal sepsis (two per cent) and HIV/AIDS (one per cent). In 2013 the adjusted maternal mortality ratio in St Vincent and the Grenadines was 45 deaths per 100,000 live births (UN agencies and the World Bank). The country has virtually achieved universal maternal health care.

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 77 per cent of all mortality in St Vincent and the Grenadines in 2008. The most prevalent NCDs in St Vincent and the Grenadines are cardiovascular diseases, which accounted for 39 per cent of total deaths across all age groups in 2008. Cancer, non-communicable variants of respiratory diseases and diabetes contributed 15 per cent, three per cent and seven per cent to total mortality, respectively (2008).

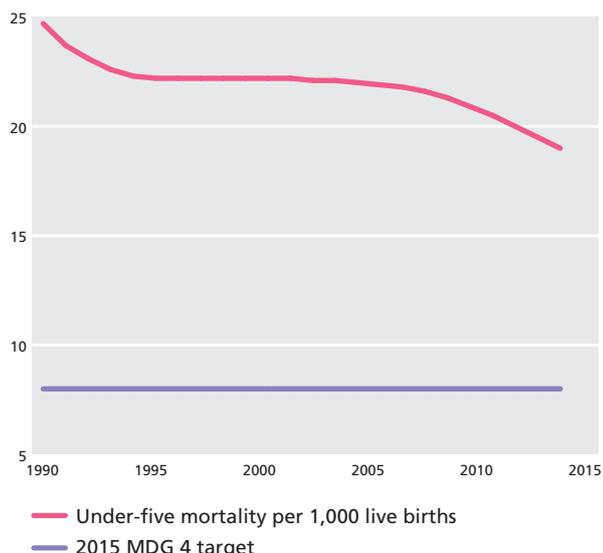
Communicable diseases along with maternal, perinatal and nutritional conditions in St Vincent and the Grenadines accounted for an estimated 15 per cent of all mortality in 2008. A government paper on HIV/AIDS reported a cumulative incidence

rate of HIV of 0.4 per cent across all age groups by the end of 2006 since the advent of the disease. St Vincent and the Grenadines is a non-endemic country for malaria. There was an overall reduction in estimated incidence of tuberculosis (TB) in the period 1990–2012 and an overall rise in estimated mortality (when data excludes cases comorbid with HIV) from tuberculosis in the period 1990–2013, from one death per 100,000 to 2.8 deaths.

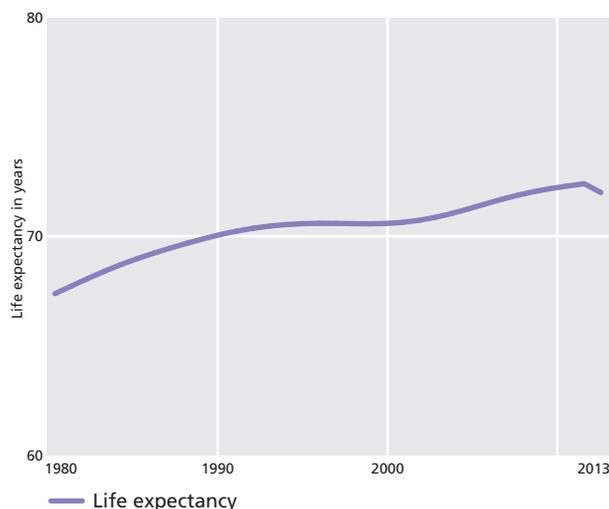
The most commonly diagnosed psychiatric disorders in St Vincent and the Grenadines are psychiatric disorders relating to substance misuse and schizophrenia.

Health systems: In 2012 government expenditure on health was 4.3 per cent of GDP, equivalent to US\$279 per capita. In the most recent survey, conducted between 1997 and 2010, there were 75 doctors, and 379 nurses and midwives per 100,000 people. Additionally, in 2012 virtually all births (99 per cent) were attended by qualified health staff and in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2013, 95 per cent of people had access to an improved water source.

Under-five mortality



Life expectancy



The Ministry of Health, Wellness and Environment manages planning and policy issues for health care. There are around 40 health centres that facilitate the delivery of primary care. Secondary care is offered at the Milton Cato Memorial Hospital in Kingstown and in the six other hospitals in the country. A new wing at Milton Cato, built with the help of funding from the World Pediatrics Partnership and the Mustique Charitable Trust, acts as a centre for paediatric surgery for St Vincent and the Grenadines and other nearby Caribbean nations. Serious medical problems often require air evacuation to the nearest large country with the necessary medical facilities.

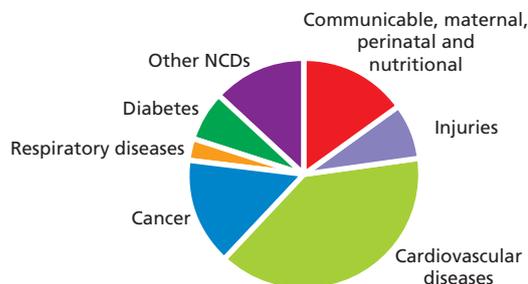
The government imports pharmaceuticals through the Pool Procurement Service of the Organisation of Eastern Caribbean States (PPS/OECS) enabling it to maximise the value of health care services to its citizens through the advantages of buying in bulk collectively, along with neighbouring countries.

The most recent act of parliament relating to mental health in St Vincent and the Grenadines is the Mental Health Act 1991.

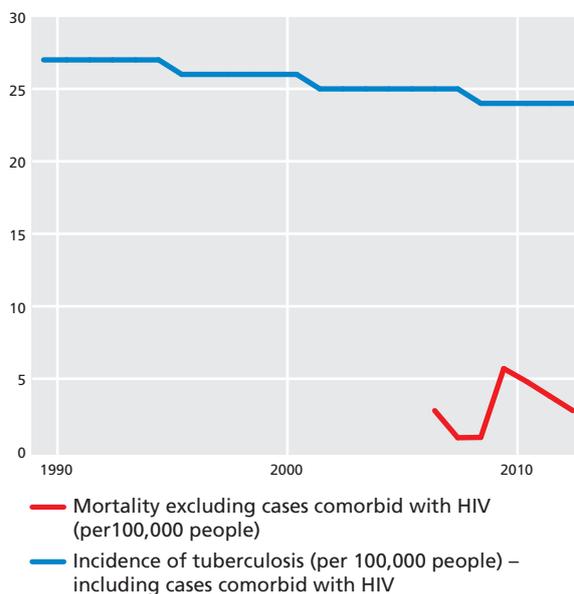
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Saint Vincent and the Grenadines to achieve its targets for the reduction of child mortality, which form MDG 4, it should have

Mortality by cause of death (% of all deaths), 2008



Tuberculosis: Incidence and mortality



reduced under-five deaths per 1,000 live births to eight and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 19 deaths per 1,000 live births and measles immunisation at 99 per cent. The country will need to have reduced under-five mortality by more than half to meet this target. However, the target for measles immunisation is close to being met and is likely to have been achieved by the time that the data is analysed in 2015.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. When applying this target to SVG, the maternal mortality ratio should fall to 15 cases per 100,000 live births. In 2013 the adjusted ratio was estimated at 45 deaths per 100,000 live births by UN agencies and the World Bank. This figure shows that the ratio has fallen by less than a quarter since 1990, so the country is unlikely to meet its target by 2015. Another target of this goal stipulates that 100 per cent of births must be attended by a skilled health professional. In 2012 this figure stood at 99 per cent, so this target is virtually achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. There was an overall rise in estimated mortality (when data excludes cases comorbid with HIV) from tuberculosis in the period 1990–2013, from one death per 100,000 to 2.8 deaths. Overall incidence of TB cases has decreased very gradually over the MDG period, from 27 per 100,000 people in 1990 to 24 in 2012. There is not enough information from international agencies to confirm the country's progress on this goal with regard to HIV/AIDS.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than a fifth of health care in St Vincent and the Grenadines (18 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 5.2 per cent of GDP in 2012, of which 82 per cent (US\$279 per capita) was covered by the government.

In running with other Caribbean nations, Saint Vincent and the Grenadines is working towards the achievement of universal health coverage. Consequently, in 2014 the Ministry of Health, Wellness and the Environment, in collaboration with the Pan American Health Organization (PAHO), hosted a one-day consultation to develop a National Strategy for Universal Health Coverage.

St Vincent and the Grenadines was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1981 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 7,000 people in St Vincent and the Grenadines are over the age of 65 – seven per cent of the total population (2013). At the age of 60 a person living in St Vincent and the Grenadines can be expected to live for an additional 20 years, on average (2013). Overall, public pension spending is equivalent to 1.5 per cent of the country's total economic output (2006).

Population over 65



In 1999 St Vincent and the Grenadines adopted the Caribbean Regional Charter on Ageing and Health, thereby registering its commitment to meeting the rights and improving the lives of the elderly. As a result, the government agreed that care of the elderly should be regarded as a priority area. Since then, initiatives have been implemented to continue improving the well-being of older persons. The government has also taken steps to ensure that all elderly persons receive a pension either through social welfare or the National Insurance Services (NIS). In 2006 the NIS provided two daycentres for older persons. In 2012 there was one public and six private elderly care homes in the country.

Further information

Ministry of Health, Wellness and the Environment:
www.health.gov.vc

Commonwealth Health Online: www.commonwealthhealth.org/health/americas/st_vincent_and_the_grenadines



Samoa



KEY FACTS

Joined Commonwealth:	1970
Population:	190,000 (2013)
GDP p.c. growth:	1.9% p.a. 1990–2013
GNI p.c.:	US\$3,430 (2013)
UN HDI 2014:	World ranking 106
Life expectancy:	73 years (2013)
Under-five mortality rate (per 1,000 live births):	18 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	6% of GDP (2012)

General information

The name Samoa, from Sa ('sacred') and Moa ('centre'), means 'Sacred Centre of the Universe'. Samoa (formerly Western Samoa) is an archipelago of nine islands at the centre of the south-west Pacific island groups, surrounded by (clockwise from north) Tokelau, American Samoa, Tonga, and Wallis and Futuna. The nine islands of Samoa are Apolima, Manono, Fenuatapu, Namu'a, Nuutele, Nuulua, Nuusafee, Savai'i (the largest, at 1,708 sq km including adjacent small islands) and Upolu (second largest, at 1,118 sq km including adjacent small islands). Five of the islands are uninhabited.

Climate: Tropical maritime. The weather is hot and rainy in December–April and cooler, with trade winds, in May–November. Samoa is prone to hurricanes and cyclones, which sometimes cause devastation. Cyclone Val in December 1991 – the worst storm to hit the islands in more than 100 years – destroyed more than half the coconut palms. The country was again devastated in 1998.

Environment: The most significant environmental issue is soil erosion.

Population: 190,000 (2013); 19 per cent of people live in urban areas. The population growth rate stood at 0.7 per cent p.a. between the years of 1990 and 2013, depressed over this period by emigration, mostly to New Zealand. In 2013 the birth rate was 26 per 1,000 people (39 in 1970) and life expectancy was 73 years (55 in 1970).

The population is predominantly Polynesian, with small minorities of people of Chinese, European or other Pacific descent. The people live mainly in extended family groups known as aiga. These groups are headed by a leader, known as matai, who is elected for life. The population is largely concentrated in villages close to the shore. There are 131,103 Samoans living in New Zealand, more than half of whom were born there (2006 New Zealand census).

Economy: Samoa is classified as a lower-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Samoa was 16 deaths per 1,000 live births in 2013, with an under-five mortality rate of 18 deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1990. Although this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of ten deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent known causes of death for children below the age of five years were congenital anomalies (24 per cent), prematurity (20 per cent) and acute respiratory infections (11 per cent). Other contributory causes were injuries (seven per cent), intrapartum-related complications (seven per cent), neonatal sepsis (four per cent) and diarrhoea (four per cent). In 2013 Samoa had an adjusted maternal mortality ratio of 58 deaths per 100,000 live births (this figure was estimated at 100 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) in Samoa accounted for an estimated 70 per cent of all mortality in 2008. The most prevalent NCDs in Samoa are cardiovascular diseases, which accounted for 37 per cent of total deaths across all age groups in 2008. Non-communicable variants of respiratory diseases, cancer and diabetes contributed seven per cent, six per cent and five per cent to total mortality, respectively (2008).

Communicable diseases along with maternal, perinatal and nutritional conditions in Samoa accounted for an estimated 25 per cent of all mortality in 2008. A government paper on HIV/AIDS reported a cumulative 23 HIV cases (12 of which resulted in death) in the period 1984–2013. Samoa is a non-endemic country for malaria. There has been an overall reduction in estimated incidence of and estimated mortality (when mortality data excludes cases

comorbid with HIV) from tuberculosis (TB) in the period 1990–2012. In 2013 the estimated incidence of TB in the country was 18 per 100,000 people and estimated mortality (when mortality data excludes cases comorbid with HIV) was 3.2 per 100,000 people.

The most commonly diagnosed mental illnesses in Samoa are bipolar disorder and drug-induced psychosis. Diagnosed cases of depression are also on the increase. Causes of depression are cited as increased urbanisation and migration causing the break-up of traditional support structures, and the increasing stresses of economic hardship. The country’s mental health act was passed in 2006.

Health systems: In 2012 government expenditure on health was six per cent of GDP, equivalent to US\$217 per capita. In the most recent survey, conducted between 1997 and 2010, there were 48 doctors, and 185 nurses and midwives per 100,000 people. Additionally, in 2009, 81 per cent of births were attended by qualified health staff and in 2013, 99 per cent of one-year-olds

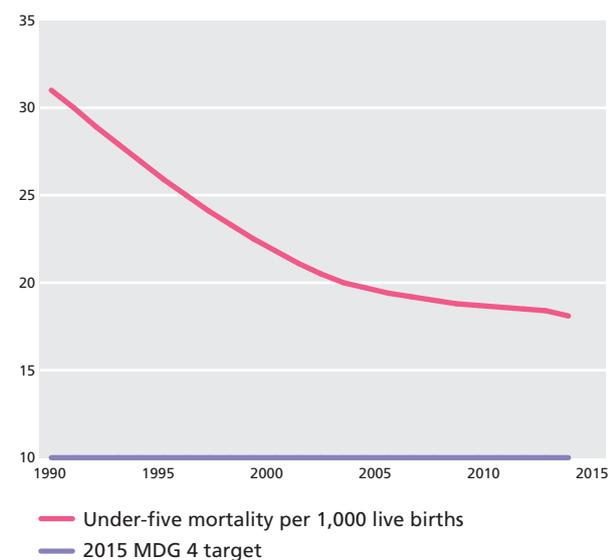
were immunised with one dose of measles. In 2012, 99 per cent of people had access to adequate sanitation facilities and 92 per cent had access to an improved source of water.

Samoa’s national hospital, the Tupua Tamasese Meaole Hospital, is located at Motootua, in Apia, and supported by district hospitals and health centres. Samoan tertiary care is limited and mainly provided through arrangement with New Zealand’s health care system. Publicly funded health care is delivered through the National Health Service. For medical emergencies or specialist treatment beyond the scope of Samoa’s health services, patients are usually airlifted to Australia, New Zealand or Hawaii.

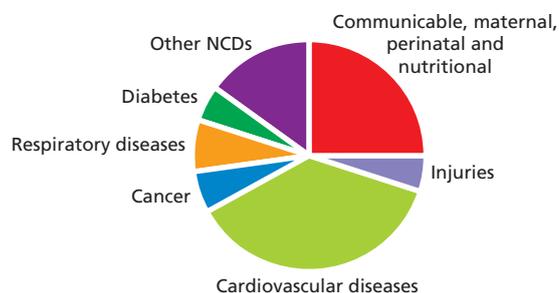
All foreign nationals are required to pay for health services in Samoa, and Samoan health care facilities and doctors normally expect cash payment before carrying out any treatment. The private health care sector has expanded in recent years, but it is mostly confined to Apia, and consists of small hospitals and clinics able to offer only a limited range of medical services.

Samoa imports almost all of its pharmaceutical requirements. The country has no independent drug regulatory authority. Global pharmaceutical organisations have interests in the anti-HIV drug Prosalin, which originated from the Samoan rainforest, and some have, in turn, donated revenues to the local people.

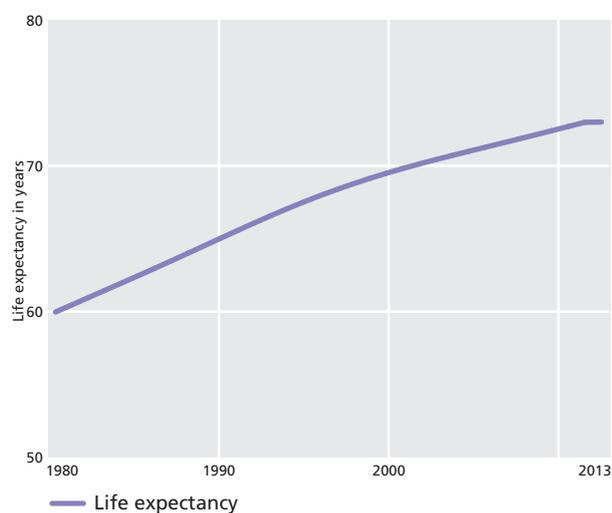
Under-five mortality



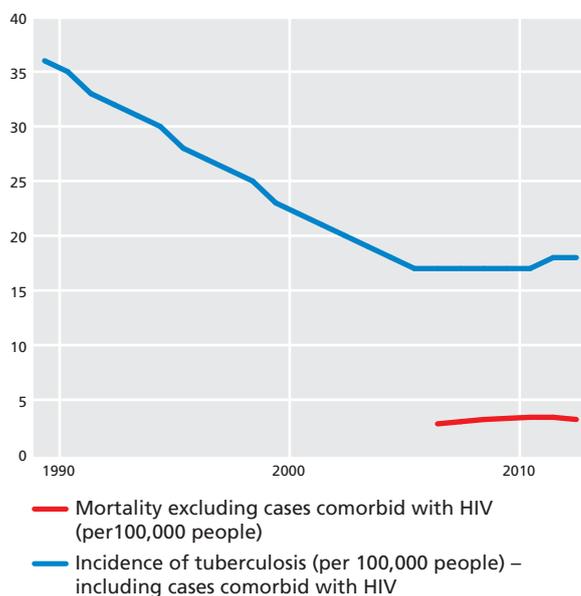
Mortality by cause of death (% of all deaths), 2008



Life expectancy



Tuberculosis: Incidence and mortality



Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Samoa to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to ten and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 18 deaths per 1,000 live births and measles immunisation at 99 per cent. While the level of immunisation has not yet reached 100 per cent, the country had no recorded cases of measles in 2008. The under-five mortality target is unlikely to have been met when the 2015 data is analysed.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015, making Samoa's target a maternal mortality ratio of 65 per 100,000 live births. In 2013 Samoa had an adjusted maternal mortality ratio of 58 deaths per 100,000 live births (estimated at 100 deaths per 100,000 live births by UN agencies/World Bank in 2010), so it has already met this target. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2009 this figure stood at 81 per cent, so this target may be met when the 2015 data is analysed.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. The prevalence of HIV/AIDS is low. There has been a gradual reduction in estimated incidence of and estimated mortality (when mortality data excludes cases comorbid with HIV) from TB since 1990. Consequently, progress has clearly been made and Samoa may well achieve MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than an eighth of health care in Samoa (12 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 6.8 per cent of GDP in 2012, of which 88 per cent (US\$217 per capita) was covered by the government.

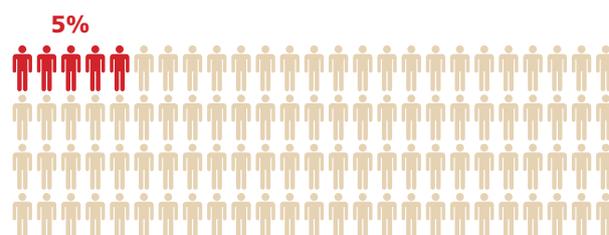
Samoa's Health Sector Plan 2008–18 states as its mission: 'To regulate and provide quality, accountable and sustainable health services through people working in partnership.' Its aims include improving access to publicly funded health care facilities for all Samoans, with clear guidelines on accessibility and affordability.

The role of non-governmental, religious, civil society and community organisations in the health sector is gaining increased government recognition. The Ministry of Health is currently looking at how to manage performance measurement, partnership approaches, formal contractual arrangements, cost structures and incentives with partner organisations, particularly with a view to increasing coverage to vulnerable and underserved communities.

Samoa is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to the ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Around 9,000 people in Samoa are over the age of 65 – five per cent of the total population (2013). At the age of 60 a person living in Samoa can be expected to live for an additional 19 years, on average (2013). Samoa's Senior Citizens Benefit dates back to 1990. Today, monthly pension credits are paid by the state at a rate of US\$59 per person (2007–12) on a universal basis.

Population over 65



There are a number of non-governmental and community-based organisations that provide health services for the elderly. Mapuifagalele Old People's Home in Apia, for example, is run by the Catholic Church of Samoa and provides accommodation for elderly people whose families are unable to care for them. The Home also works with the National Health Service and private GPs to provide medical care for older citizens in their own homes.

Mapuifagalele is Samoa's only old people's home and when it first opened in 1975 it was the first old people's home in western Polynesia.

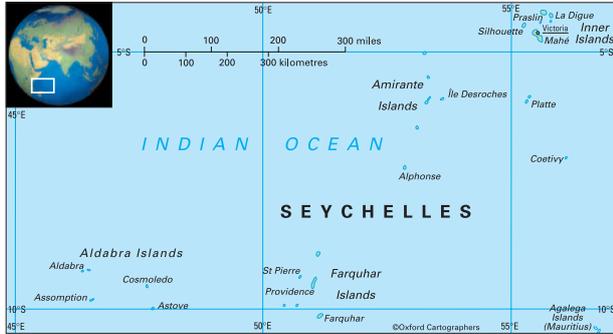
Further information

Ministry of Health: www.health.gov.ws

Commonwealth Health Online:
www.commonwealthhealth.org/health/pacific/samoa



Seychelles



KEY FACTS

Joined Commonwealth:	1976
Population:	93,000 (2013)
GDP p.c. growth:	2.3% p.a. 1990–2013
GNI p.c.:	US\$12,530 (2013)
UN HDI 2014:	World ranking 71
Life expectancy:	73 years (2013)
Under-five mortality rate (per 1,000 live births):	14 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	4.3% of GDP (2012)

General information

The Republic of Seychelles lies in the western part of the Indian Ocean, north of Madagascar and 1,593 km east of Mombasa, Kenya. It is an isolated archipelago of outstanding natural beauty comprising about 115 islands, the largest and most economically important of which is Mahé.

Climate: Tropical. The south-east trade winds blow May–October. The north-west monsoon winds bring heavy squalls of rain. January is the wettest month, July and August the driest.

Temperature remains constant throughout the year, at 24–31°C, and humidity at around 80 per cent. The country is outside the cyclone belt.

Environment: The most significant environmental issue is dependence on rainwater for supply of water.

Population: 93,000 (2013); 88 per cent on Mahé, seven per cent on Praslin, three per cent on La Digue and two per cent on the other islands, with 53 per cent of people living in urban areas. The population growth rate stood at 1.3 per cent p.a. between the years of 1990 and 2013. In 2012 the birth rate was 17 per 1,000 people (est) and life expectancy was 73 years (est).

The population is of mixed African, French, Indian, Chinese and Arab descent. There are small minorities of Europeans, Indians and Chinese.

Economy: Seychelles is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: In 2013 infant mortality in Seychelles was 12 deaths per 1,000 live births, with an under-five mortality rate of 14 deaths per 1,000 live births in 2013. There was a consistent decline in the under-five mortality rate between 1990 and 1996. However, the years from 1996 saw the mortality rate plateau at 14 deaths per 1,000 live births; accordingly, the under-five mortality rate is not yet in line with the country's target of six deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent known causes of death for children below the age of five years were prematurity (27 per cent), congenital anomalies (25 per cent) and birth asphyxia (eight per cent). Other contributing causes were pneumonia (seven per cent), and neonatal sepsis and injuries (both four per cent). In the period 2007–11 Seychelles had an adjusted maternal mortality ratio of 57 deaths per 100,000 live births.

Burden of disease: Non-communicable diseases (NCDs) in Seychelles accounted for an estimated 74 per cent of all mortality in 2008. The most prevalent NCDs in Seychelles are cardiovascular diseases, which caused 32 per cent of the total deaths across all age groups in 2008. Cancer, non-communicable variants of respiratory diseases and diabetes contributed 20 per cent, four per cent and two per cent to total mortality, respectively (2008).

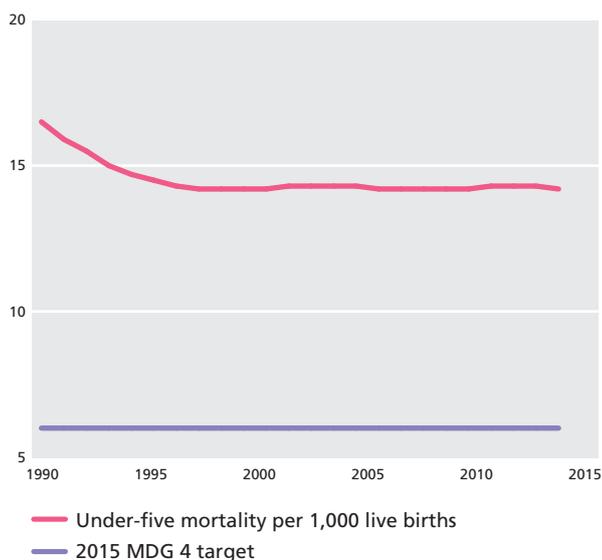
Communicable diseases along with maternal, perinatal and nutritional conditions in Seychelles accounted for an estimated 19 per cent of all mortality in 2008. A government paper on HIV/AIDS reported a cumulative 578 HIV cases (261 of which resulted in death) in the period 1987–2013. Seychelles is a non-endemic country for malaria. The estimated incidence of tuberculosis (TB) has shown an overall decrease in the period 1990–2013, with significant fluctuation throughout this period, while the estimated mortality (when mortality data excludes cases comorbid with HIV) for TB has fluctuated, but remained overall unchanged.

Health systems: In 2012 government expenditure on health was 4.3 per cent of GDP, equivalent to US\$486 per capita. In the most recent survey, conducted between 1997 and 2010, there were 151 doctors, and 793 nurses and midwives per 100,000 people. Additionally, in 2012, 97 per cent of one-year-olds were immunised with one dose of measles and in 2009, 99 per cent of all births were attended by a qualified health attendant. The most recent survey, conducted in the period 2000–11, reports that Seychelles has 76 pharmaceutical personnel per 100,000 people. In 2012, 96

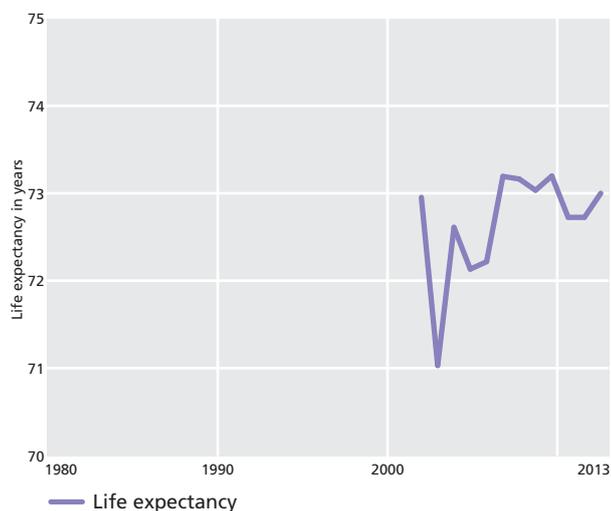
per cent of the country's population had access to adequate sanitation facilities and 97 per cent had access to an improved source of water.

Health care is provided mainly by the Seychelles government. The country has a three-tier health care system. A youth health centre and 16 district health centres located throughout the country provide primary level care (2009). There is one central referral hospital at the tertiary level, Seychelles Hospital, and five hospitals (including a mental and a rehabilitative hospital) at the secondary level. There are also 26 private medical, dental and optometry clinics offering primary health care, referring patients to government-run secondary and tertiary care services when required. Highly specialised treatment takes place overseas, with the government providing most of the funding (at a total cost of US\$1.53 million in 2013). As there is no local manufacturing in the Seychelles, the country's pharmaceutical requirements are met entirely by imports. There are no legal provisions for regulating the private-sector pharmaceutical market.

Under-five mortality



Life expectancy



The most recent act of parliament relating to mental health in Seychelles is the Mental Health Act, which came into effect in 2009.

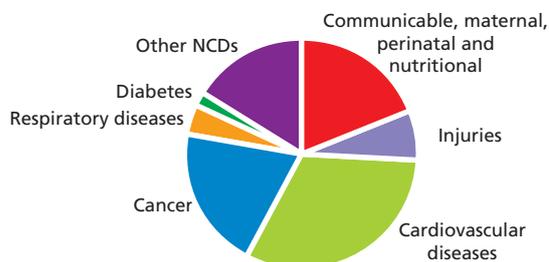
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Seychelles to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to six and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 14 deaths per 1,000 live births and measles immunisation at 97 per cent. While the measles immunisation target is close to being achieved, the under-five mortality rate is more than double the target figure.

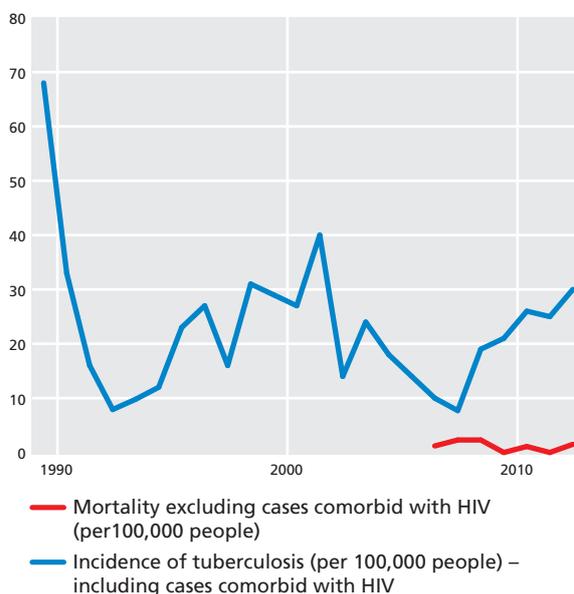
The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. In 2008 maternal mortality in Seychelles was 57 deaths per 100,000 live births (an estimate from UN agencies/World Bank). The 2013 maternal mortality ratio was again 57 deaths per 100,000 live births (adjusted). The target for Seychelles is unclear due to a lack of available data from 1990.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Progress needs to be made in reducing deaths from

Mortality by cause of death (% of all deaths), 2008



Tuberculosis: Incidence and mortality



TB and stopping the spread of HIV/AIDS if the country is to achieve MDG 6 by 2015. The 2013 MDG progress report for Seychelles highlights the need for widespread surveying of key populations, including sex workers and prison inmates, in a bid to develop prevention and intervention programming, as well as methods of sustaining national HIV and AIDS programmes.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Just seven per cent of health care in Seychelles was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 4.7 per cent of GDP in 2012, of which 93 per cent (US\$486 per capita) was covered by the government.

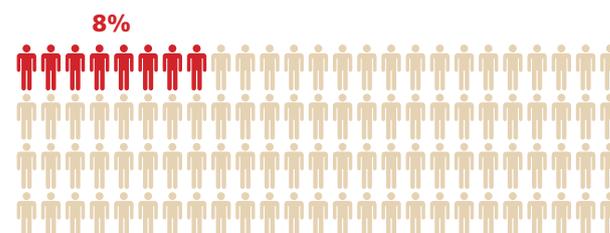
The country's Health Strategic Framework 2006–16 is based on the principles of the 'right to health care, health for all and health by all', as set out in the Constitution.

The 2013 MDG progress report for Seychelles highlighted the need for more inclusive medical and health service provision for mothers and children, including widespread improvements in antenatal, delivery and postnatal services, with the aim of raising health care to international standards.

Seychelles was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1984 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 7,000 people in Seychelles are over the age of 65 – eight per cent of the total population (2013). At the age of 60 a person in the Seychelles can be expected to live for an additional 19 years, on average (2013). The country's old-age pension (the Social Security Fund) dates back to 1979. Public pension spending was equivalent to 2.9 per cent of the country's total economic output in 2006.

Population over 65



The National Council for the Elderly, created as a result of an act of parliament in 1997, co-ordinates the activities of public and private organisations engaged in providing welfare to the elderly, as well as organising services and programmes for older people.

Government policy states that those elderly people who are independent are eligible for places in state-owned district homes, with self-catering facilities. Home carers visit elderly people who have chosen to remain in their own homes or live with family. There is also an old people's home at North East Point.

Further information

Ministry of Health: www.health.gov.sc

Commonwealth Health Online:
www.commonwealthhealth.org/health/africa/seychelles

Sierra Leone



KEY FACTS

Joined Commonwealth:	1961
Population:	6,092,000 (2013)
GDP p.c. growth:	0.5% p.a. 1990–2013
GNI p.c.:	US\$680 (2013)
UN HDI 2014:	World ranking 183
Life expectancy:	46 years (2013)
Under-five mortality rate (per 1,000 live births):	161 (2013)
Largest contribution to mortality:	Respiratory infections
Government health expenditure:	2.5% of GDP (2012)

General information

The Republic of Sierra Leone (Portuguese for 'Lion Mountain') in West Africa is bordered by Guinea to the north, Liberia to the south-east, and the Atlantic to the south and west.

Climate: Tropical and humid all year, but cooler on the coast. The dry season is November–May, when the dusty harmattan wind blows from the Sahara; the rainy season lasts the rest of the year.

Environment: The most significant environmental issues are depletion of natural resources during the civil war; deforestation and soil exhaustion due to over-harvesting of timber; expansion of cattle grazing and slash-and-burn agriculture; and overfishing.

Population: 6,092,000 (2013); 39 per cent of people live in urban areas. The population growth rate stood at 1.8 per cent p.a. between the years of 1990 and 2013. In 2012 the birth rate was 37 per 1,000 people (46 in 1970) and life expectancy was 46 years (36 in 1970 and 40 in 1990). Population figures are unreliable because during the civil war in the mid-1990s up to 50 per cent of the population had to leave their homes in a mass migration to towns and neighbouring countries.

The vast majority of the people are of Bantu origin: Temne (35 per cent in the 2008 census) and Limba (eight per cent) people mostly in the Northern Province; Mende people (31 per cent) live in the Southern province and Eastern province. Additionally, there are nine other Bantu ethnic groups, including Kono (five per cent), Mandingo (two per cent) and Loko (two per cent). Krios (two per cent) are descendants of formerly enslaved 19th-century immigrants who live mostly in and around Freetown. The small Lebanese community, mostly of traders, decreased during the 1990s.

Economy: Sierra Leone is classified as a low-income economy by the World Bank.

Health

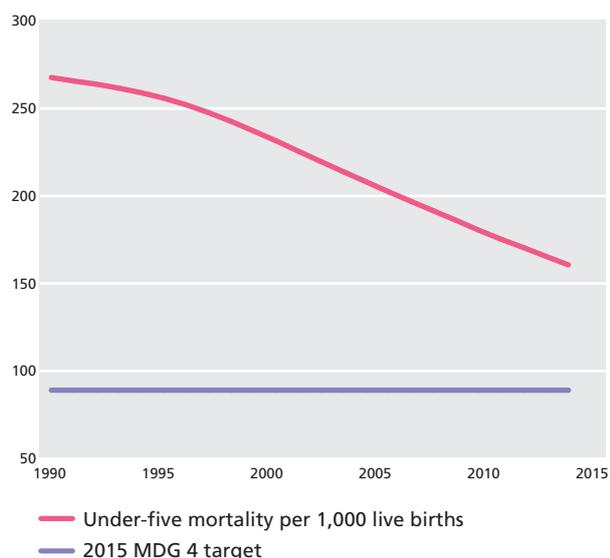
Child and maternal health: Infant mortality in Sierra Leone was 107 deaths per 1,000 live births in 2013, with an under-five mortality rate of 161 deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1993. Although this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of 89 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent causes of death for children below the age of five years were acute respiratory infections (17 per cent), malaria (14 per cent) and diarrhoea (14 per cent). Other contributory causes were prematurity (nine per cent), intrapartum-related complications (nine per cent), measles (six per cent), neonatal sepsis (five per cent), congenital anomalies (four per cent) and injuries (four per cent). In 2013 Sierra Leone had an adjusted maternal mortality ratio of 1,100 deaths per 100,000 live births (this figure was estimated at 890 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: The Ebola outbreak of 2014–15 has claimed 3,687 lives in Sierra Leone so far, according to the World Health Organization (WHO; March 2015). The first confirmed case in Sierra Leone was in May 2014, the outbreak having begun in Guinea several months earlier. The international response was headed by the United Nations and the WHO, with many charities

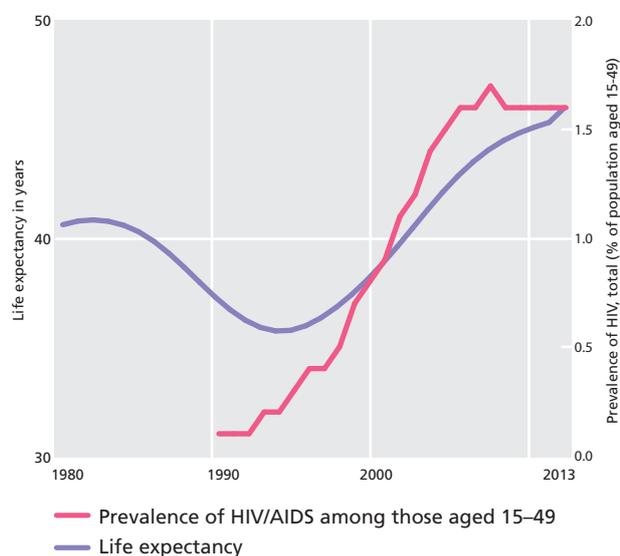
and national governments pledging funding and medical personnel to help combat the crisis. The UK has opened six Ebola treatment centres across Sierra Leone, sending hundreds of UK doctors, nurses and other medical professionals to help treat patients and educate communities about preventative measures.

Communicable diseases along with maternal, perinatal and nutritional conditions in Sierra Leone accounted for an estimated 66 per cent of all mortality in 2012. The prevalence of HIV/AIDS in Sierra Leone, as a percentage of people aged 15–49 years, stood at 1.6 per cent in 2012. The prevalence of HIV/AIDS in Sierra Leone increased consistently from 1990 before plateauing in 2007. In 2012 there were a reported 1,537,322 cases of malaria in the country. Malaria has seen a rapid increase in the number of deaths and confirmed cases since 2005, although these figures did begin to decrease in 2010. In the period 1990–2010 there was a gradual and consistent increase in estimated incidence of tuberculosis (TB), while estimated mortality (when mortality data excludes cases comorbid with HIV) from this disease decreased in the same period.

Under-five mortality



Life expectancy and HIV/AIDS



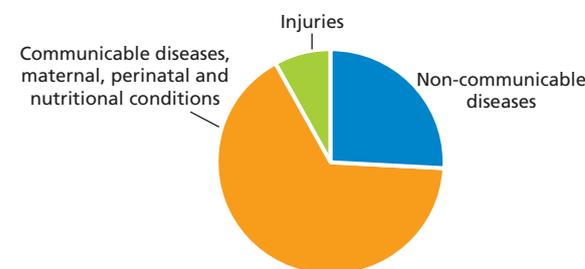
Non-communicable diseases (NCDs) in Sierra Leone accounted for an estimated 26 per cent of all mortality in 2012. The most prevalent NCDs in Sierra Leone are cardiovascular diseases, which accounted for nine per cent of total deaths across all age groups in 2008. Cancer, non-communicable variants of respiratory diseases and diabetes each contributed two per cent to total mortality (2012). Injuries accounted for eight per cent of deaths in 2012.

The most commonly diagnosed psychiatric disorder in Sierra Leone is post-traumatic stress disorder.

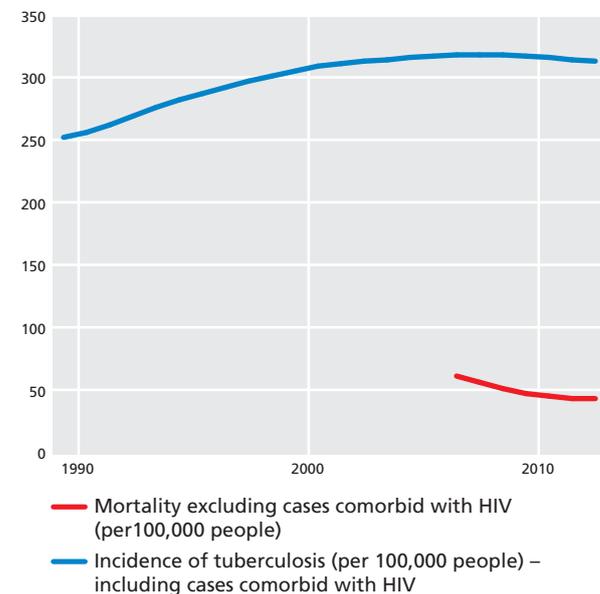
Health systems: In 2012 government expenditure on health was 2.5 per cent of GDP, equivalent to US\$6 per capita. In the most recent survey, conducted in the period 1997–2010, there were two doctors, and 17 nurses and midwives per 100,000 people. Additionally, in 2010, 61 per cent of births were attended by qualified health staff and in 2013, 83 per cent of one-year-olds were immunised with one dose of measles. In 2012, 60 per cent of people were using an improved drinking water source and 13 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, found that Sierra Leone has three pharmaceutical personnel per 100,000 people.

Health care infrastructure was severely damaged during the country's civil war. Many clinics were looted. International charities, such as the Red Cross, are still very active in Sierra Leone, helping to plug gaps in health care until long-term improvements can be made.

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



There are about 80 hospitals in the public and private sectors in Sierra Leone. The facilities include 17 government civilian hospitals, with a key private hospital, Choithram, in Freetown. Other, temporary hospitals have been opened to treat Ebola patients, usually funded by charities or foreign governments. The largest mission hospital in the country is the Emergency Hospital established by the Italian non-governmental organisation (NGO) Emergency, and a key medical training facility is the College of Medicine and Allied Health Sciences (COMAHS). There is also a thriving market for traditional healers in Sierra Leone. The Hospital Boards Act 2003, followed by the Hospital Boards Amendment Act 2007, came into operation to ensure the better management of specified hospitals and the provision of efficient medical care in the country.

A fledgling pharmaceutical industry has sprung up in the last few years, but the country still imports the vast majority of its drugs, with the Pharmacy Board monitoring the quality of incoming medicines. Sierra Leone's pharmaceutical sector mainly consists of retailers, marketers and local agents of the big international pharmaceutical firms. The Pharmacy Board has been involved in a series of efforts to stamp out the proliferation of counterfeit medicines, which continue to pose a threat to the pharmaceutical industry and public health in the entire region.

The current mental health laws under the Mental Treatment Ordinance have been in place since 1957.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Sierra Leone to achieve its targets for the reduction of child mortality, which forms MDG 4, it should have reduced under-five deaths per 1,000 live births to 89 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 161 deaths per 1,000 live births – almost double the target figure – and measles immunisation at 83 per cent. It is unlikely, therefore, that the under-five target will be met. Measles immunisation coverage would need to be expanded by nearly a fifth to meet the target.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Sierra Leone, the maternal mortality ratio should fall to 325 cases per 100,000 live births. In 2013 Sierra Leone had an adjusted maternal mortality ratio of 1,100 deaths per 100,000 live births (this figure was estimated at 890 deaths per 100,000 by UN agencies/World Bank in 2010). Sierra Leone would have had to cut maternal mortality by two-thirds in just two years in order to meet this target. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2010 this figure stood at 61 per cent, so achievement of this target is also looking unrealistic.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. There has been little change in HIV prevalence in Sierra Leone since 2004, with incidence of HIV having increased significantly since records began around 1990. Reported cases and deaths from malaria in the country are also high and continuing to rise. Unfortunately, there has been a significant increase in the estimated incidence of and estimated mortality (when mortality data excludes cases comorbid with HIV) from TB since 1990.

Consequently, this goal is unlikely to be reached. The United Nations Development Programme report on Sierra Leone's progress towards the MDGs suggests increasing awareness and education about diseases in the general population, and improving the facilities of health care centres and hospitals to allow for increased treatment of these diseases.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

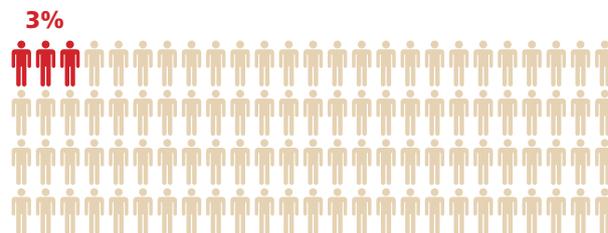
Less than a fifth of health care in Sierra Leone (17 per cent) was government funded in 2012. The remaining 83 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 15.1 per cent of GDP in 2012. Expenditure by government amounts to US\$16 per capita.

In 2010 the government brought in the Free Healthcare Initiative for pregnant women, breastfeeding mothers and children under five. Fees for medical attention were abolished for these target groups, with drugs and treatment provided free of charge in every public health facility in the country.

Sierra Leone was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1996 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 162,000 people in Sierra Leone are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person living in Sierra Leone can be expected to live for an additional 13 years, on average (2013). Overall, public pension spending is equivalent to 0.5 per cent of the country's total economic output (2009).

Population over 65



Like in many other African countries, the elderly are traditionally cared for by family, but AIDS and the civil war have seen many older people outlive their children. Charities provide some care for elderly people. The King George VI Coronation Home for the Elderly in Freetown, for example, is the country's only facility of its kind and is heavily dependent on help from international charities.

Further information

Ministry of Health and Sanitation: www.health.gov.sl

Commonwealth Health Online: www.commonwealthhealth.org/health/africa/sierra_leone



Singapore



KEY FACTS

Joined Commonwealth:	1965
Population:	5,412,000 (2013)
GDP p.c. growth:	3.5% p.a. 1990–2013
GNI p.c.:	US\$54,040 (2013)
UN HDI 2014:	World ranking 9
Life expectancy:	82 years (2013)
Under-five mortality rate (per 1,000 live births):	3 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	1.7% of GDP (2012)

General information

The name 'Singapore' derives from the Sanskrit Singa Pura ('City of the Lion'). Situated in South-East Asia and lying just north of the equator, the Republic of Singapore is separated from Peninsular Malaysia by the narrow Johor Straits (1-km wide), crossed by a causeway. A number of smaller islands are included within its boundaries and a few kilometres to the south are islands belonging to Indonesia.

Climate: A hot and humid tropical climate, without defined seasons. Heavy showers November–January.

Environment: The most significant environmental issues are industrial pollution and seasonal smoke/haze resulting from forest fires in Indonesia; and the finite land and freshwater resources to support a very high population density.

Population: 5,412,000 (2013); 100 per cent of people live in urban areas, and 100 per cent in urban agglomerations of more

than one million people. The population growth rate stood at 2.5 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was ten per 1,000 people (23 in 1970) and life expectancy was 82 years (69 in 1970).

The population is predominantly Chinese (77 per cent in 2000 census), with Malays constituting 14 per cent and Indians eight per cent, and small minorities of Europeans and Eurasians.

Economy: Singapore is classified as a high-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Singapore was two deaths per 1,000 live births in 2013, with an under-five mortality rate of three deaths per 1,000 live births in 2013 – down from eight deaths in 1990. In 2010 the two most prominent causes of death for children below the age of five years were prematurity (26 per cent) and congenital anomalies (25 per cent). Other contributory causes were acute respiratory infections (eight per cent), intrapartum-related complications (seven per cent), injuries (six per cent), neonatal sepsis (one per cent) and diarrhoea (one per cent). In 2013 Singapore had an adjusted maternal mortality ratio of six deaths per 100,000 live births (an estimate from UN agencies/World Bank).

Burden of disease: Non-communicable diseases (NCDs) in Singapore accounted for an estimated 76 per cent of all mortality in 2012. The most prevalent NCDs in Singapore are cardiovascular diseases, which accounted for 31 per cent of total deaths across all age groups in 2012, and cancer, accounting for 30 per cent of all deaths. Non-communicable variants of respiratory diseases and diabetes contributed three per cent and one per cent to total mortality, respectively (2012). Injuries accounted for five per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions in Singapore accounted for an estimated 19 per cent of all mortality in 2012. The prevalence of HIV in Singapore, as a percentage of people aged 15–49 years, is less than 0.1 per cent (2012). Despite being in a region endemic for malaria, Singapore has maintained its malaria-free status from the World Health Organization (WHO) since 1982. Estimated incidence of and estimated mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis (TB) have fallen overall in the period 1990–2013, although estimated incidence has shown a gradual increase in the period 2007–13.

The most commonly diagnosed mental illness in Singapore is depression, alongside dementia.

Health systems: In 2012 government expenditure on health was 1.7 per cent of GDP, equivalent to US\$912 per capita. In the most recent survey, conducted between 1997 and 2010, there were 192

doctors, and 639 nurses and midwives per 100,000 people. In 2013, 95 per cent of one-year-olds were immunised with one dose of measles and in 2011, 100 per cent of births were attended by qualified health attendants. In 2012, 100 per cent of Singapore's population had access to improved water sources and adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Singapore has 39 pharmaceutical personnel per 100,000 people.

Singapore's medical standards are among the highest in Asia and the health care system was ranked sixth in the WHO's ranking of world health systems in 2000. Health care in Singapore is a combination of both private and government institutions offering primary, secondary and tertiary health care provision. The public system is managed by the Ministry of Health, which is also responsible for regulating health standards and formulating national health policies for the provision of preventive, curative and rehabilitative health services. The private system is composed of private hospitals and private general practitioners, which provide 80 per cent of primary health care services. The public sector, however, provides 80 per cent of hospital care. There are 18 government-run outpatient polyclinics, about

1,500 private medical practitioners' clinics, and several public and private hospitals and specialty centres.

There is a large and successful pharmaceutical industry in Singapore, with more than ten leading pharmaceutical and biotechnology companies having regional headquarters in the country. The pharmaceutical sector is self-regulated through the Singapore Pharmacy Council.

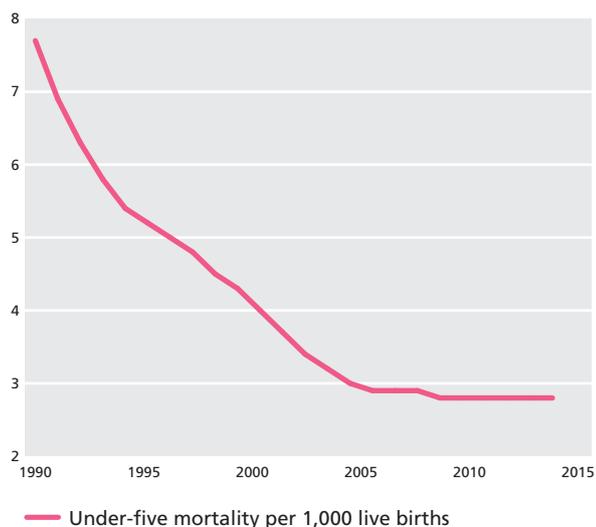
The most recent act of parliament relating to mental health in Singapore is the Mental Health (Care and Treatment) Act 2008.

Main health concerns and plans for remedial action:

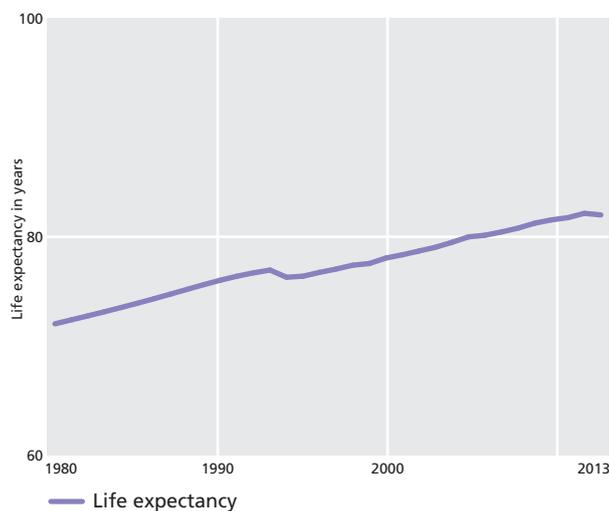
Singapore has a life expectancy of 82 years, showing a sustained increase – up from 78 years in 2000 and 76 years in 1990. Gains have been primarily due to reduced child and maternal mortality, and improved longevity for other age groups, particularly for older people with chronic diseases.

Singapore suffers from few physical hazards, but has one of the world's most open economies which, coupled with a high population density, makes the country particularly vulnerable to outbreaks of infectious diseases, such as the severe acute respiratory syndrome (SARS) outbreak in 2003 and the influenza A (H1N1) pandemic in 2009. In response to this vulnerability, the Ministry of Health maintains a comprehensive and well-established system of disease surveillance and control under the Infectious Diseases Act. The Ministry of Health has access to a surveillance

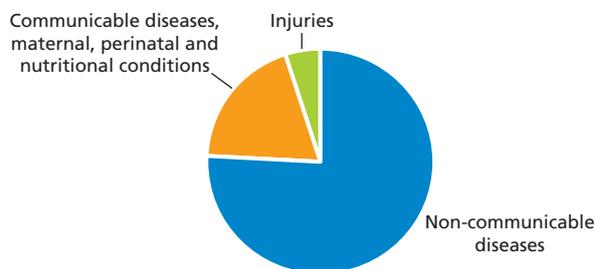
Under-five mortality



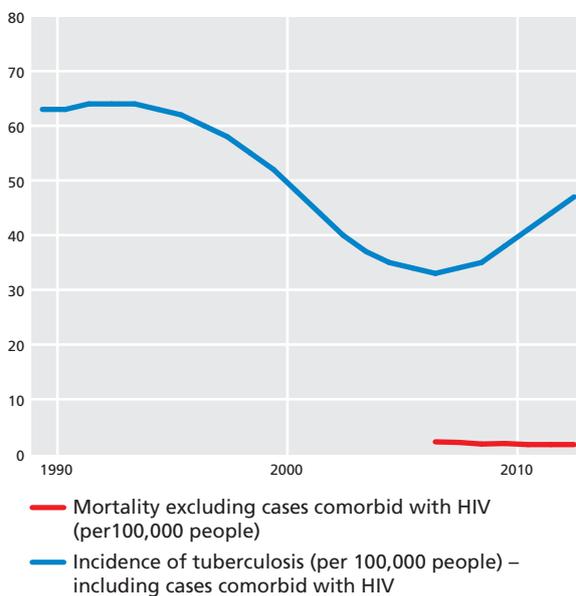
Life expectancy



Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



system capable of allowing early detection of potential infectious disease threats. This, combined with close links with the World Health Organization, allows the Ministry of Health to detect and track outbreaks worldwide, allowing for a quick response to infectious disease outbreaks. Health care institutions and medical workers are also kept informed of potential threats in a bid to ensure that they are prepared.

NCDs, particularly cancer and heart disease, remain the leading causes of mortality – in contrast to the 1950s, when infectious diseases like TB were among the leading causes. Cancer incidence rates, which accounted for 30 per cent of all deaths in 2012, have been declining slowly since the early 1980s for men. However, incidence rates for women have increased, due mainly to increases in breast and colorectal cancers. The prevalence of chronic diseases in Singapore, such as diabetes and hypertension, declined between 1992 and 2010, as well as risk factors including smoking, physical inactivity, obesity and high cholesterol. In February 2014 the Singapore Cancer Society celebrated its 50th anniversary on World Cancer Day. In a speech at the beginning of the ceremony, Minister for Health Gan Kim Yong spoke of the society's mission to 'minimise cancer, maximise life' in a country where cancer remains the leading cause of death.

The speech focused on the importance of regular screening for breast, cervical and colorectal cancers. In order to promote regular screening, the Ministry of Health continues to put in place measures to ensure access to good quality and affordable health screening.

For definitions and sources see page 314.

Universal health coverage

Just over a third of health care in Singapore (38 per cent) was government funded in 2012. The remaining 62 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 4.2 per cent of GDP in 2012. Expenditure by government amounts to US\$912 per capita.

Singapore finances health care using government subsidies, insurance and a mandatory saving system called Medisave, into which employers and employees contribute a percentage of their salary each month. There are still out-of-pocket payments to be made, however, that can be difficult for low-income families to afford.

In the early days of independence, the government established a network of satellite outpatient dispensaries, and maternal and child health clinics to bring primary care services closer to people and take pressure off hospitals. The so-called polyclinics offer a one-stop-shop for immunisation, health screening, family planning services, nutritional advice, psychiatric counselling, dental care, pharmaceutical dispensary, x-rays, clinical laboratory and even home visits.

Those living in Singapore who are not citizens or permanent residents generally have to pay the full cost of their health care. Having a baby, for example, costs in the region of S\$9,000 (US\$6,650).

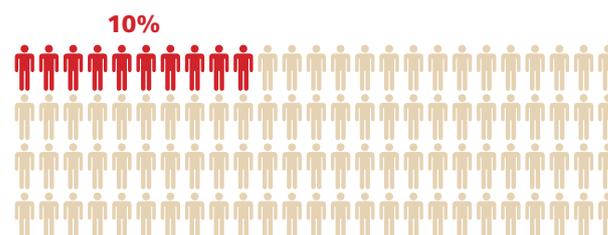
At the end of 2015 a new compulsory medical insurance scheme will be brought in, called MediShield Life. This will address some concerns about out-of-pocket costs and accessibility, promising to provide better benefits and protection, and universal, lifelong coverage and improved protection against large hospital bills.

Singapore is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to the ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Approximately 552,000 people in Singapore are over the age of 65 – ten per cent of the total population (2013). At the age of 60 a person living in Singapore can be expected to live for an additional 24 years, on average (2013).

Singapore, like most developed countries, is facing emerging problems from an ageing population. In Singapore the issue is particularly acute thanks to a low birth rate, increased life expectancy and the fact that the post-war baby boomer generation has just started to reach retirement age. The government has projected that by 2030 there will only be 2.1 working-age citizens for each citizen aged 65 and above. Currently, there are 4.8 people of working age for every person over 65.

Population over 65



The government has set up the Ministerial Committee on Ageing (MCA) to spearhead a whole-of-government response to the opportunities and challenges presented by this changing demographic. The main role of the MCA is to promote 'ageing in place', whereby seniors are given support and assistance within a close community. This is done in part through building an inclusive environment, thereby making the city age-friendly, and providing good care, including health care, within the inclusive environment. The MCA also promotes 'active ageing', whereby members of the ageing community are encouraged, and supported, in keeping their minds active and their bodies healthy. Particular attention is paid to ensuring health screening and follow-up care is available to seniors.

The country has no tradition of social welfare, which has led to high costs for families that are paying for the care of elderly people. In 2012 the Ministry of Health increased subsidies both for residential care of the elderly and for support provided in people's own homes. The MediShield Life reforms also promise more subsidies for older people.

Further information

Ministry of Health: www.moh.gov.sg

Commonwealth Health Online:

www.commonwealthhealth.org/health/asia/singapore



Solomon Islands



KEY FACTS

Joined Commonwealth:	1978
Population:	561,000 (2012)
GDP p.c. growth:	0.5% p.a. 1990–2013
GNI p.c.:	US\$1,610 (2013)
UN HDI 2014:	World ranking 157
Life expectancy:	68 years (2013)
Under-five mortality rate (per 1,000 live births):	30 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	7.7% of GDP (2012)

General information

Solomon Islands, an archipelago in the south-west Pacific, consists of a double chain of rocky islands and some small coral islands. The major islands are Guadalcanal, Choiseul, Santa Isabel, New Georgia, Malaita and Makira (or San Cristobal). Vanuatu is the nearest neighbour to the south-east where the archipelago tapers off into a series of smaller islands. Its nearest neighbour to the west is Papua New Guinea.

The country comprises the capital territory of Honiara and nine provinces, namely Central (provincial capital Tulagi), Choiseul (Taro Island), Guadalcanal (Honiara), Isabel (Buala), Makira and Ulawa (Kirakira), Malaita (Auki), Rennell and Bellona (Tigoa), Temotu (Lata) and Western (Gizo).

Climate: Equatorial – hot and humid. During the rainy season (November–April) there are fierce tropical storms, for example Cyclone Zoë in December 2002, which devastated the isolated islands of Tikopia and Anuta.

Environment: The most significant environmental issues are deforestation, soil erosion and that much of the surrounding coral reef is dead or dying.

Population: 561,000 (2013); 21 per cent of people live in urban areas. The population growth rate stood at 2.6 per cent p.a.

between the years of 1990 and 2013. In 2013 the birth rate was 31 per 1,000 people (46 in 1970) and life expectancy was 68 years (54 in 1970).

About 95 per cent of the people are Melanesian, three per cent Polynesian and one per cent Micronesian (1999 census). There is a small expatriate population.

Economy: Solomon Islands is classified as a lower-middle-income economy by World Bank.

Health

Child and maternal health: Infant mortality in Solomon Islands was 25 deaths per 1,000 live births in 2013, with an under-five mortality rate of 30 deaths per 1,000 live births in 2013. There has been an overall decline in the under-five mortality rate since 1990. Although this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of 13 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the two most prominent known causes of death for children below the age of five years were acute respiratory infections (17 per cent), prematurity (14 per cent) and intrapartum-related complications (13 per cent). Other contributory causes were congenital anomalies (12 per cent), injuries (nine per cent), diarrhoea (eight per cent), neonatal sepsis (seven per cent) and malaria (two per cent). In the period 2007–11 Solomon Islands had an adjusted maternal mortality ratio of 130 deaths per 100,000 live births (estimated at 93 deaths per 100,000 live births by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) in Solomon Islands accounted for an estimated 60 per cent of all mortality in 2012. The most prevalent NCDs in Solomon Islands are cardiovascular diseases, which accounted for 19 per cent of total deaths across all age groups in 2012. Cancer, diabetes and non-communicable variants of respiratory diseases contributed ten per cent, eight per cent and six per cent to total mortality, respectively (2012). Injuries accounted for ten per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions in Solomon Islands accounted for an estimated 30 per cent of all mortality in 2012. A government paper on HIV/AIDS reported that there were an estimated 14 people living in the country with HIV in 2013. The number of confirmed cases of malaria has declined steadily in the period 2000–19, while the number of deaths from malaria has fallen since 2009. There has been a significant reduction in estimated incidence of and estimated mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis (TB) in the period 1990–2012.

The most commonly diagnosed mental illnesses in Solomon Islands are depression and dementia. The problems are more prevalent in the areas that see the most alcohol and drug misuse.

Health systems: In 2012 government expenditure on health was 7.7 per cent of GDP, equivalent to US\$142 per capita. In the most recent survey, conducted in the period 1997–2010, there were 22 doctors, and 205 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 86 per cent of births were attended by qualified health staff and in 2013, 76 per cent of one-year-olds were immunised with one dose of measles. In 2012, 81 per cent of the country's population had access to improved water sources and 29 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Solomon Islands has ten pharmaceutical personnel per 100,000 people.

There are nine public hospitals, four private church-funded hospitals, around 25 health centres, 109 rural health clinics and more than 150 nurse aid posts. The National Referral Hospital is located in Honiara, Guadalcanal Province.

An official mental health policy does not exist and mental health is not specifically mentioned in the general health policy. A policy was

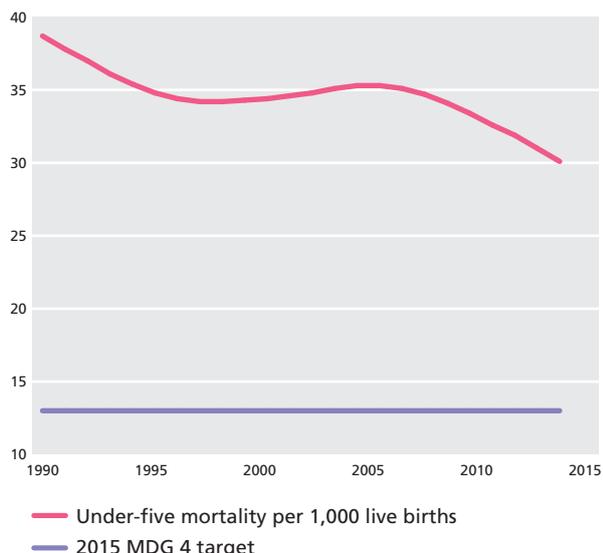
drafted in 2009, but has not yet been implemented. Legislation on mental health dates back to 1978.

The World Health Organization Country (WHO) Specific Strategic Agenda (2013–17) identified seven strategic priorities for Solomon Islands, which include continuing with health sector reform, especially with regard to expanding the National Referral Laboratory and its infrastructure, and implementing the National Medicines Policy. The reforms will also see planning and budgeting devolved to provinces by defining the levels of service, or 'packages of care', that ought to be provided at the various health care facilities that make up the Solomon Islands health system.

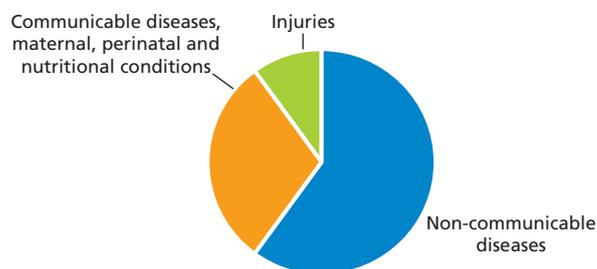
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Solomon Islands to achieve its targets for the reduction of child mortality, which forms MDG 4, it will need to have reduced under-five deaths per 1,000 live births to 14 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 30 deaths per 1,000 live births and measles immunisation at 76 per cent. The country also had no recorded cases of measles in 2008. Solomon Islands is unlikely to meet either of these targets, particularly that regarding under-five mortality, which would entail reducing deaths by more than half in two years.

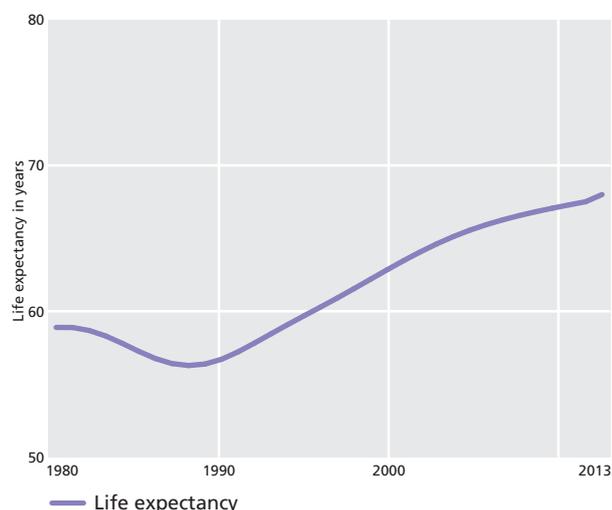
Under-five mortality



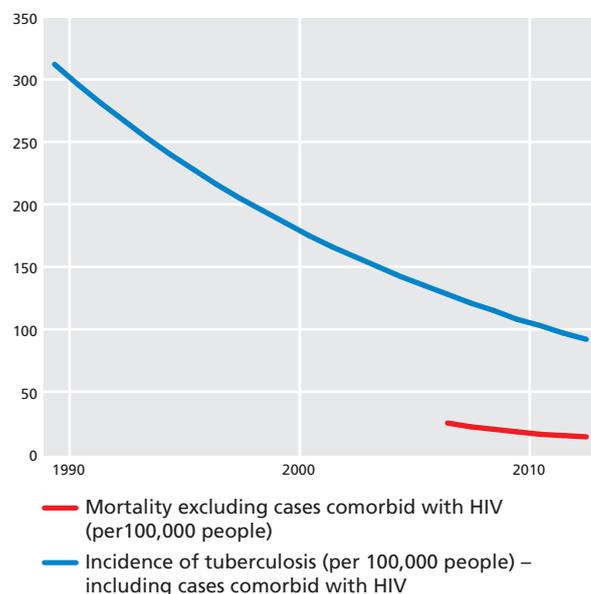
Mortality by cause of death (% of all deaths), 2012



Life expectancy



Tuberculosis: Incidence and mortality



The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Solomon Islands the maternal mortality should fall to 38 cases per 100,000 live births. In 2013 Solomon Islands had adjusted a maternal mortality rate of 130 deaths per 100,000 live births – more than three times the target figure. In 2010 this figure was estimated at 93 maternal deaths per 100,000 live births by UN agencies/World Bank. Consequently, the target is very unlikely to be achieved. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In the period 2007–12 this figure stood at 86 per cent, so this target is also unlikely to be met.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. There is not enough information from international agencies to confirm the country's progress on this goal for HIV/AIDS. Estimated mortality (when mortality data excludes cases comorbid with HIV) from TB fell significantly in the period 1990–2013. There was a sharp decrease in malaria deaths in the period 2009–11. Solomon Islands is making progress towards achieving the targets set out under MDG 6, however, the country is unlikely to fully achieve this goal.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Just four per cent of health care in Solomon Islands was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 7.7 per cent of GDP in 2012, of which 96 per cent (US\$142 per capita) was covered by the government.

The WHO Country Specific Strategic Agenda has identified a need for Solomon Islands to try to achieve universal health coverage. As a result, the government will be introducing new National Health Accounts and identifying health-financing options, which might include new tobacco tax legislation. There will also be a drive to recruit health care professionals, where human resources gaps have been identified, through initiatives including inviting foreign medical graduates to apply for jobs in its the national health services.

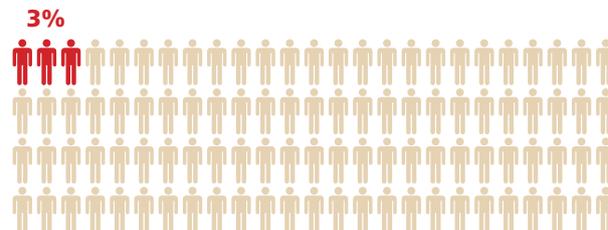
Solomon Islands was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but declared notification of succession in 1984. It includes 'the right of everyone

to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Almost 19,000 people in Solomon Islands are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person living in Solomon Islands can be expected to live for an additional 17 years, on average (2013).

Statistics have shown that the elderly are over-represented in fatalities caused by natural disasters, such as cyclones or tsunamis, in Pacific islands, including Solomon Islands, due to their reduced ability to physically move out of the way of danger. Consequently, the Samoa Red Cross has involved elderly citizens in planning its Community Disaster and Climate Risk Management programme in an attempt to ensure that their needs are met.

Population over 65



In most areas, people live in extended family groups in which the elderly, even those who are childless, are cared for by relatives. These kinship groups are less strong in urban areas and in those families where the younger generations have emigrated in search of jobs.

On some islands, local charities and community groups, such as the Mothers Union, will also visit the elderly, passing out soap, clothes and small amounts of cash to the most needy.

Further information

Ministry of Health:

www.commerce.gov.sb/MOH/MOHintro.htm

Commonwealth Health Online:

www.commonwealthhealth.org/pacific/solomon_islands



South Africa



KEY FACTS

Joined Commonwealth:	1931 (Statute of Westminster; left in 1961, re-joined in 1994)
Population:	52,776,000 (2013)
GDP p.c. growth:	0.9% p.a. 1990–2013
GNI p.c.:	US\$7,190 (2013)
UN HDI 2014:	World ranking 118
Life expectancy:	57 years (2013)
Under-five mortality rate (per 1,000 live births):	44 (2013)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	4.2% of GDP (2012)

General information

The Republic of South Africa has land borders with Namibia, Botswana, Zimbabwe, Mozambique and Swaziland. Its sea borders are with the South Atlantic and Indian Oceans. Lesotho is enclosed within its land area. The country comprises nine provinces: Eastern Cape (provincial capital Bisho), Free State (Bloemfontein), Gauteng (Johannesburg), KwaZulu-Natal (Pietermaritzburg), Limpopo (Polokwane), Mpumalanga (Nelspruit), Northern Cape (Kimberley), North-West (Mafikeng) and Western Cape (Cape Town).

Climate: Climate varies with altitude and continental position – Mediterranean climate in the Western Cape; humid subtropical climate on the northern KwaZulu-Natal coast; continental climate of the Highveld; and arid Karoo and Kalahari fringes, with a great temperature range, giving very hot summer days and cold dry nights.

Environment: The most significant environmental issues are soil erosion, desertification, air pollution and resulting acid rain, and pollution of rivers from agricultural run-off and urban discharges. In a country with relatively few major rivers and lakes, extensive water conservation and control measures are necessary to keep pace with rapid growth in water usage.

Population: 52,776,000 (2013); 64 per cent of people live in urban areas and 37 per cent in urban agglomerations of more than a million people. The population growth rate stood at 1.6 per cent p.a. between 1990 and 2013. In 2013 the birth rate was 21 per 1,000 people (38 in 1970) and life expectancy was 57 years (53 in 1970 and 61 in 1990).

People of African origin constitute 79 per cent of the population (2001 census), European origin 9.6 per cent, mixed descent 8.9 per cent ('coloureds') and Asian origin 2.5 per cent. The African linguistic groups comprise Zulu (23.8 per cent of the total population), Xhosa (17.6 per cent), Pedi (9.4 per cent), Tswana (8.2 per cent), Sotho (7.9 per cent), Tsonga (4.4 per cent), Swati (2.7 per cent), Venda (2.3 per cent) and several smaller groups. The 'coloureds' include descendants of slaves brought from Malaya, Indonesia and Madagascar, and the Khoi-Khoi people of the Cape. There is also a substantial flow of inward migration of people seeking employment, most from neighbouring countries.

Economy: South Africa is classified as an upper-middle-income economy by the World Bank.

Health

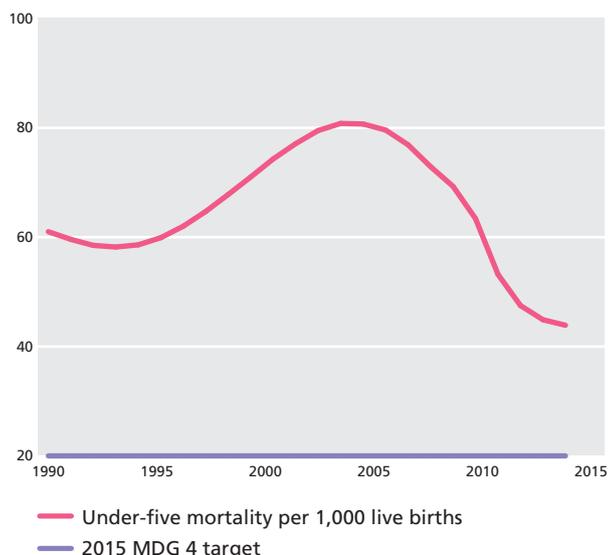
Child and maternal health: Infant mortality in South Africa was 33 deaths per 1,000 live births in 2013, with an under-five mortality rate of 44 deaths per 1,000 live births in 2012. The country's under-five mortality rate increased from around 60 deaths to 80 per 1,000 live births between 1990 and 2003. The decline in under-five mortality in the period 2004–13 has resulted in the lowest rate in more than 20 years, 44 per 1,000 live births. While this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of 20 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). The greatest single cause of death for children below the age of five years is HIV/AIDS, which accounted for 17 per cent of deaths in the under-fives in 2012. Other contributory causes were acute respiratory infections (16 per cent), prematurity (14 per cent), intrapartum-related complications (ten per cent), injuries (seven per cent), diarrhoea (seven per cent), congenital anomalies (six per cent), neonatal sepsis (four per cent) and measles (one per cent). In 2013 South Africa had an adjusted maternal mortality ratio of 140 deaths per 100,000 live births (this figure was estimated at 300 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 48 per cent of all mortality in South Africa in 2012. The prevalence of

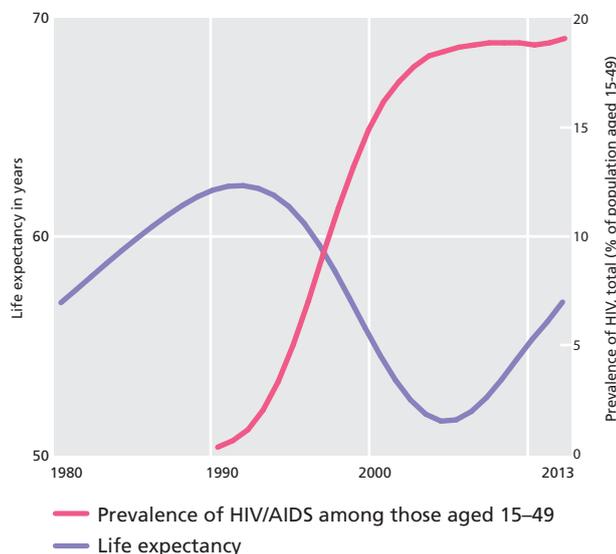
HIV, as a percentage of the people aged 15–49 years, stood at 19.1 per cent in 2012. HIV prevalence in South Africa has remained high in the period 2004–12. In 2012 there were 5,629 reported cases of malaria in the country. The number of confirmed cases of malaria fell by more than half overall between 2001 and 2012. The number of deaths from malaria has seen a slight overall decrease since 2000; however, this decline was not consistent and the number of deaths almost doubled in the period 2007–12. Since 1990 there has been a significant increase in estimated incidence of and estimated mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis (TB).

Non-communicable diseases (NCDs) accounted for an estimated 44 per cent of all mortality in 2012. The most prevalent NCDs in South Africa are cardiovascular diseases, which accounted for 18 per cent of total deaths across all age groups in 2012. Cancer, diabetes and non-communicable variants of respiratory diseases contributed seven per cent, six per cent and three per cent to total mortality, respectively (2012). Injuries accounted for eight per cent of deaths in 2012.

Under-five mortality



Life expectancy and HIV/AIDS



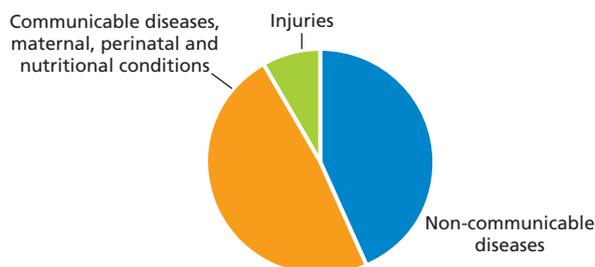
Commonly diagnosed mental illnesses in South Africa include depression and anxiety disorders. The country also has a high rate of mental health conditions relating to psychoactive substance misuse. The impact of HIV/AIDS in South Africa has been connected with a significant increase in medical conditions, including depression and anxiety.

Health systems: South Africa’s public spending on health was 4.2 per cent of GDP in 2012, equivalent to US\$308.7 per capita. In the most recent survey, conducted between 1997 and 2012, there were 76 doctors, and 490 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 91 per cent of births were attended by qualified health staff and in 2013, 66 per cent of one-year-olds were immunised with one dose of measles. In 2012, 95 per cent of people were using an improved drinking water source and 74 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that there are 37 pharmaceutical personnel per 100,000 people.

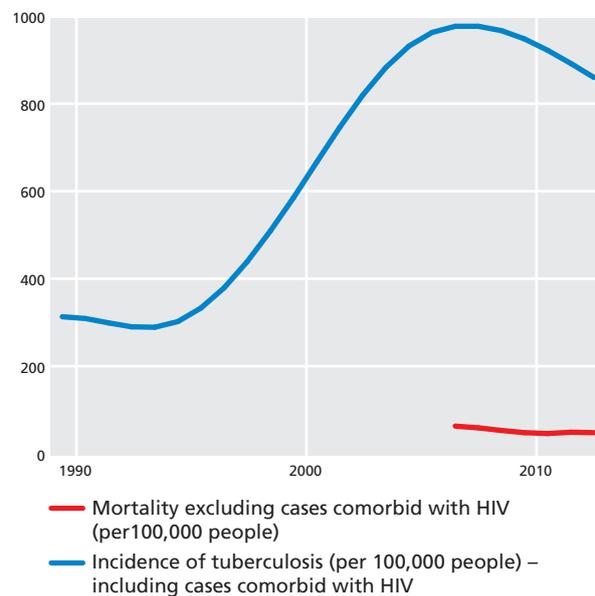
South Africa has approximately 400 public and private hospitals, with people living in urban areas having better access to expert health care. In 2014 the government committed to building 43 new hospitals and 213 new clinics, as well as refurbishing some existing facilities, within the next five years.

There is a noticeable division between public and private health facilities, with current government policy aimed at closing the gap. Private facilities are largely aimed at middle- to high-income earners

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



and funded through private health insurance, while public facilities are under-resourced. The private sector attracts the majority of health care professionals.

South Africa has an established pharmaceutical industry with operations spanning all stages of industry: manufacturing, wholesaling and retail. All the major global pharmaceutical names have offices in the country that act as a central base for many of their operations in the rest of the Southern African region.

The most recent act of parliament relating to mental health in South Africa is the Mental Health Care Act 2002.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For South Africa to achieve its targets for the reduction of child mortality, which form MDG 4, it would need to have reduced under-five deaths per 1,000 live births to 20 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 44 deaths per 1,000 live births, down from 47 in 2011, and measles immunisation at 66 per cent a significant decrease from 79 per cent in 2012. With under-five mortality more than twice the target figure, the country is very unlikely to achieve this goal. In South Africa's 2013 MDG progress report, several challenges were identified as requiring immediate attention if South Africa is to improve its under-five mortality rating and measles immunisation by 2015. These include research into the influence of socio-economic factors on child mortality levels; empowering women through maternal education; addressing the lack of integrated planning for transportation, safe water and sanitation; and increasing the monitoring of childhood mortality.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For South Africa, the maternal mortality rate should fall to 63 cases per 100,000 live births. In 2013 the country had an adjusted maternal mortality rate of 140 deaths per 100,000 live births (this figure was estimated at 300 deaths per 100,000 by UN agencies/World Bank in 2010). This is more than twice the target figure, so this goal is very unlikely to be achieved. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In the period 2007–12 this figure stood at 91 per cent, so this target may be achieved by 2015.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. South Africa's prevalence of HIV was 17.9 per cent in 2012 (in the 15–49 age group). This figure is very high and there has been no discernible reduction in HIV prevalence since 1990. There also has been a significant increase in estimated TB incidence and mortality (when mortality data excludes cases comorbid with HIV) since 1990. Numbers of deaths from malaria increased in the period 2007–11. Consequently, the achievement of MDG 6 is not looking very realistic.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

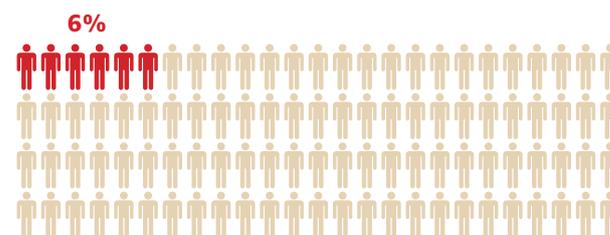
Around half of all health care in South Africa (52 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 8.8 per cent of GDP in 2012, of which 48 per cent (US\$309 per capita) was covered by the government.

South Africa's two-tier system of public and private health care makes adequate health care inaccessible to a large number of South Africans, as public sector institutions are so stretched (see 'Health systems' above). Initiatives, such as free health care for children under six and for pregnant or breastfeeding mothers, were introduced in the mid-1990s as a step towards making quality care more affordable. A new scheme of National Health Insurance (NHI) is aimed at completely overhauling the health system. The aim of NHI is to improve access to quality health care services for the whole population and to provide financial protection against high health-related costs. NHI is being phased in over a 14-year time frame, starting from 2012, and will eventually cover all South Africans.

South Africa has signed and ratified the International Covenant on Economic, Social and Cultural Rights, which includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 2.9 million people in South Africa are over the age of 65 – six per cent of the total population (2013). At the age of 60 a person in South Africa can be expected to live for an additional 16 years, on average (2013). South Africa's Older Persons Grant dates back to 1927/28, when it was first introduced for the white population. In 1944 the scheme was extended to the whole population and in 1996 full parity was achieved. Today, monthly pension credits are paid by the state at a rate of \$125 per person (2007–12) on a means-tested basis. Overall, public pension spending is equivalent to 2.2 per cent of the country's total economic output (2010).

Population over 65



In 2013 the Global AgeWatch Index issued a report on the quality of life of older people in 91 nations, with South Africa ranking highest in Africa at 65. The report found that, while it performed fairly well with respect to income security, South Africa performed poorly with respect to elderly people's health status – there are only eight registered geriatric doctors in the whole country. Lack of health care facilities for the elderly are largely due to the AIDS epidemic, which has seen health professionals directed away from geriatric care and towards caring for mothers and children.

As in other African countries, many elderly people also find themselves caring for grandchildren who have lost their parents to AIDS.

Further information

Ministry of Health: www.doh.gov.za

Commonwealth Health Online:

www.commonwealthhealth.org/health/africa/south_africa



Sri Lanka



KEY FACTS

Joined Commonwealth:	1948
Population:	21,273,000 (2013)
GDP p.c. growth:	4.6% p.a. 1990–2013
GNI p.c.:	US\$3,170 (2013)
UN HDI 2014:	World ranking 73
Life expectancy:	74 years (2013)
Under-five mortality rate (per 1,000 live births):	10 (2012)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	1.3% of GDP (2013)

General information

The Democratic Socialist Republic of Sri Lanka (formerly Ceylon) is an island in the Indian Ocean, separated from south-east India (Tamil Nadu state) by the Palk Strait. It is almost linked to the Indian mainland by Adam's Bridge, an atoll barrier, mostly submerged, lying between the offshore island of Mannar and India itself.

The country comprises nine provinces (from south to north): Southern (provincial capital Galle), Sabaragamuwa (Ratnapura), Western (Colombo), Uva (Badulla), Eastern (Trincomalee), Central (Kandy), North-Western (Kurunegala), North-Central (Anuradhapura) and Northern (Jaffna).

Climate: Tropical. The lowlands are always hot, particularly in March–May. The highlands are cooler. During December–January there is occasional frost on very high ground – for example, at Nuwara Eliya. The dry season is March–mid-May. The south-west monsoon season spans mid-May–September; the north-east, November–March.

Environment: The most significant environmental issues are deforestation; soil erosion; coastal degradation as a result of mining activities and increased pollution; pollution of freshwater resources by industrial wastes and sewage; air pollution in Colombo; and the threats to wildlife populations of poaching and urbanisation.

Population: 21,273,000 (2013); 18 per cent of people live in urban areas. The population growth rate stood at 0.9 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 18 per 1,000 people (31 in 1970) and life expectancy was 74 years (43 in 1946 and 64 in 1970).

The largest ethnic group is Sinhalese (estimated at 74 per cent of the population), followed by Sri Lankan Tamils (12 per cent), Muslims (seven per cent), Indian Tamils (five per cent), and small communities of Malays and Burghers (persons of Dutch or partly Dutch descent), with a small number of Veddhhas, descended from the earliest inhabitants. Sinhalese settlers arrived in the fifth and sixth centuries BC.

Economy: Sri Lanka is classified as a lower-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Sri Lanka was eight deaths per 1,000 live births in 2013, with an under-five mortality rate of ten deaths per 1,000 live births in 2013. There has been a consistent gradual decline in the under-five mortality rate since 1990. Although this decline is promising, the under-five mortality rate is not yet in line with the country's target of seven deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the two most prominent causes of death for children below the age of five years were congenital anomalies (39 per cent) and prematurity (25 per cent). Other contributory causes were intrapartum-related complications (nine per cent), acute respiratory infections (six per cent), injuries (four per cent), neonatal sepsis (four per cent) and diarrhoea (two per cent). In 2013 Sri Lanka had an adjusted maternal mortality rate of 29 deaths per 100,000 live births (this figure was estimated at 35 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) in Sri Lanka accounted for an estimated 75 per cent of all mortality in 2008. The most prevalent NCDs in Sri Lanka are cardiovascular diseases, which accounted for 40 per cent of total deaths across all age groups in 2012. Cancer, non-communicable variants of respiratory diseases and diabetes contributed ten per cent, eight

per cent and seven per cent to total mortality, respectively (2012). Injuries accounted for 14 per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 11 per cent of all mortality in Sri Lanka in 2012. The prevalence of HIV in Sri Lanka, as a percentage of people aged 15–49 years, was less than 0.1 per cent in 2012. In 2012 there were 23 reported cases of malaria in the country, a significant decline from 684 reported cases in the year 2010. There has been no reduction in the estimated incidence of tuberculosis (TB) in the period 1990–2013, during which time this has stood at 66 cases per 100,000 people; overall estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease has remained consistent at 5.9 deaths per 100,000 in the period 2007–13.

There is a lack of data on which to base figures for the most commonly diagnosed mental illness in Sri Lanka.

Health systems: In the most recent survey, conducted between 1997 and 2010, there were 68 doctors, and 164 nurses and

midwives per 100,000 people. Additionally, in 2013, 99 per cent of births were attended by qualified health staff and in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2012, 94 per cent of people were using an improved drinking water source and 92 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Sri Lanka has four pharmaceutical personnel per 100,000 people.

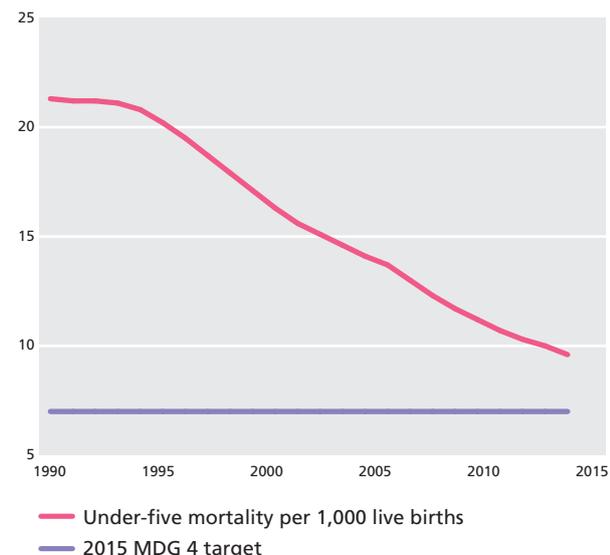
Health and medical services in Sri Lanka are provided by both the public and private sector. The provision of public health service in Sri Lanka takes place at the central, provincial, district and divisional levels. Most people live within 5 km of a health facility. There is a large network of government-funded hospitals throughout the island. Private sector health services also play an important role, with a relatively low-cost private health care sector. There are some pharmaceutical manufacturing facilities in the country, although the vast majority of pharmaceutical requirements are imported.

A mental health policy was approved in 2005.

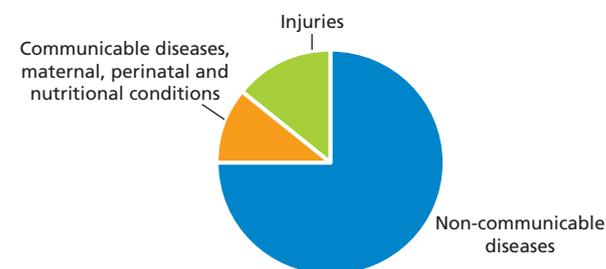
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Sri Lanka to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to seven and increased measles

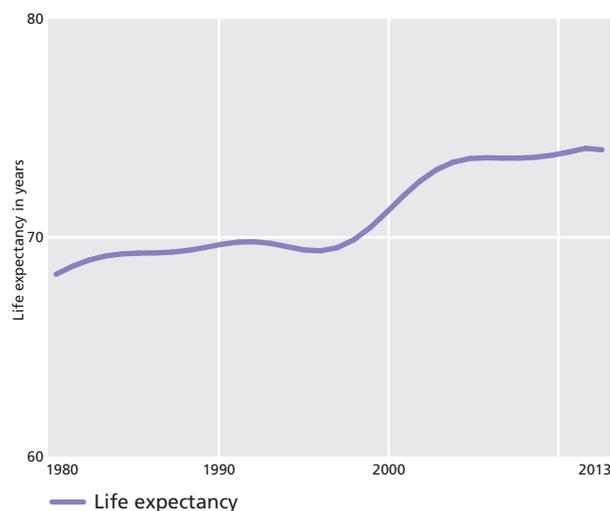
Under-five mortality



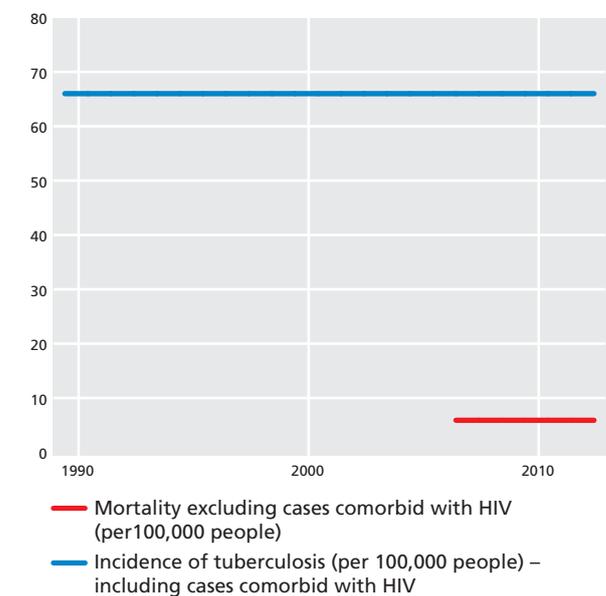
Mortality by cause of death (% of all deaths), 2012



Life expectancy



Tuberculosis: Incidence and mortality



immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at ten deaths per 1,000 live births and measles immunisation at 99 per cent. Considering that Sri Lanka's under-five mortality rate has been consistently falling since 1990 and measles immunisation is nearing 100 per cent, Sri Lanka has a good chance of achieving its MDG 4 targets when the 2015 data is analysed.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Sri Lanka, maternal mortality should fall to 29 deaths per 100,000 live births. In 2013 Sri Lanka had an adjusted maternal mortality rate of 29 deaths per 100,000 live births (this figure was estimated at 35 deaths per 100,000 by UN agencies/World Bank in 2010). Considering the figure reported by the country, it has already met the maternal-mortality target. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2013 this figure stood at 99 per cent, so this target has virtually been achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Sri Lanka is a low prevalence country for HIV/AIDS. In the period 2010–11 there was a significant decrease in the number of reported cases of malaria, from 632 to 124. Estimated TB mortality (when mortality data excludes cases comorbid with HIV) fell slightly in the period 1990–2010, though estimated incidence has remained unchanged. With continued progress, Sri Lanka may achieve the targets set by this goal when the 2015 data is analysed.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Only two-fifths of health care in Sri Lanka (40 per cent) was government funded in 2012. The remaining 60 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted 3.1 per cent of GDP in 2012. Expenditure by the government amounts to US\$35 per capita.

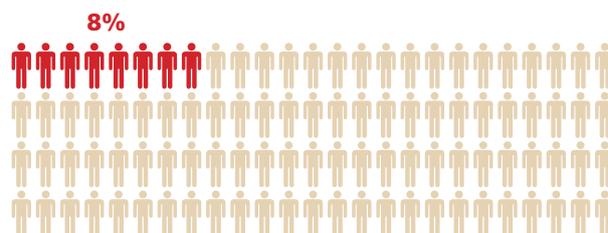
In recent years the government of Sri Lanka has taken significant steps towards improving government-funded health care in the country. Sri Lanka has an extensive network of public health units and hospitals spread across the island, and the majority of hospitals are well staffed and equipped to meet the general health demands of the community. Public health services are provided free of charge to citizens of Sri Lanka. However, in 2013 the World Health Organization reported that there is still a need for the reform of the primary health care model. It was suggested that, while hospitals in general are well equipped in terms of staff and

equipment, the importance of public health needs revitalising. The health system of the northern and eastern provinces was severely affected by years of conflict in the country and is in dire need of attention.

Sri Lanka was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1980 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 1.8 million people in Sri Lanka are over the age of 65 – eight per cent of the total population (2013). At the age of 60 a person in Sri Lanka can be expected to live for an additional 20 years, on average (2013). Overall, public pension spending is equivalent to two per cent of the country's total economic output (2007).

Population over 65



The population of Sri Lanka, in running with the population in the rest of South Asia, is rapidly increasing. Where in the past elderly members of society would have been cared for by their close relatives and neighbouring community, the societal structure of Sri Lanka has now begun to move away from these traditional practices. In recent years, the government has started to expand its duty to protect the rights of the elderly and promote social welfare services. Consequently, in 2000 the Ministry of Social Services, Welfare and Livestock Development established the National Council for Elders and National Secretariat for Elders under the Protection of Elders Rights Act. There are a number of private elderly care providers present on the island, including Cinnamon Care Services and the Royal Nursing Home.

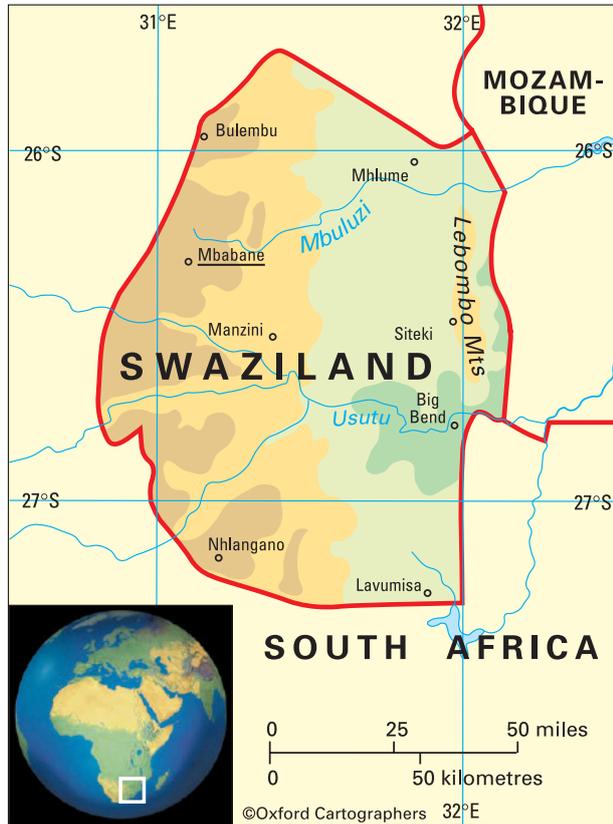
Further information

Ministry of Health: www.health.gov.lk

Commonwealth Health Online:
www.commonwealthhealth.org/health/asia/sri_lanka



Swaziland



KEY FACTS

Joined Commonwealth:	1968
Population:	1,250,000 (2013)
GDP p.c. growth:	0.8% p.a. 1990–2013
GNI p.c.:	US\$3,080 (2013)
UN HDI 2014:	World ranking 148
Life expectancy:	49 years (2013)
Under-five mortality rate (per 1,000 live births):	80 (2013)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	6.3% of GDP (2012)

General information

The Kingdom of Swaziland is a small landlocked country in the east of Southern Africa, bounded to the east by Mozambique and elsewhere by South Africa. The country comprises four regions: Hhohho (in the north), Manzini (west-central), Lubombo (east) and Shiselweni (south).

Climate: The Highveld is near-temperate and humid, the Middleveld and Lubombo subtropical, the Lowveld near-tropical.

Swaziland is one of the best-watered countries in southern Africa, although, in common with the rear of the region, rainfall may be unreliable and periods of drought occur in the Lowveld, for example in 2004–05. Summer (October–March) is the rainy season. There is occasional, short-lived frost in the Highveld and the Middleveld.

Environment: The most significant environmental issues are overgrazing, soil degradation, soil erosion, limited supplies of drinking water and depletion of wildlife populations by excessive hunting.

Population: 1,250,000 (2013); 21 per cent of people live in urban areas. The population growth rate stood at 1.6 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 30 per 1,000 people (49 in 1970) and life expectancy was 49 years, having fallen sharply since the late 1990s due to AIDS (61 in 1990 and 60 in 1997).

Swazis make up 90 per cent of the population; people of other African, European or mixed descent make up ten per cent. Large numbers of Mozambicans fled to Swaziland to escape the civil war, but repatriation was completed in 1993.

Economy: Swaziland is classified as a lower-middle-income economy by the World Bank.

Health

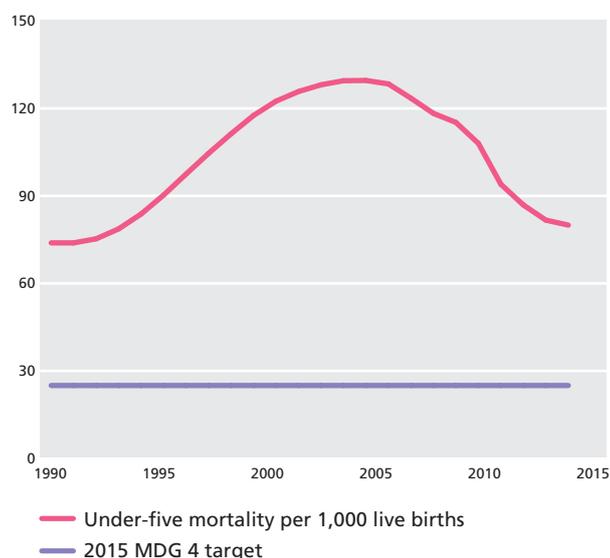
Child and maternal health: Infant mortality in Swaziland was 56 deaths per 1,000 live births in 2013, with an under-five mortality rate of 80 deaths per 1,000 live births in 2013. There has been a decline in the under-five mortality rate since 2005. Prior to this, the under-five mortality rate increased from approximately 83 deaths per 1,000 live births in 1990 to 128 deaths per 1,000 live births in 2003. Although the recent improvement is encouraging, the under-five mortality rate is not yet in line with the country's target of 28 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2012 the three most prominent causes of death for children below the age of five years were HIV (15 per cent), acute respiratory infections (15 per cent) and prematurity (14 per cent). Other contributory causes were intrapartum-related complications (12 per cent), diarrhoea (nine per cent), neonatal sepsis (seven per cent), and congenital anomalies and injuries (both six per cent). In 2013 Swaziland had an adjusted maternal mortality ratio of 310 deaths per 100,000 live births (this figure was estimated at 320 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions in Swaziland accounted for an estimated 63 per cent of all mortality in 2012. The prevalence of HIV in Swaziland, as a percentage of the population aged 15–49 years, stood at 27.4 per cent in 2012. HIV prevalence increased consistently in the period 1990–2005, following which the figures

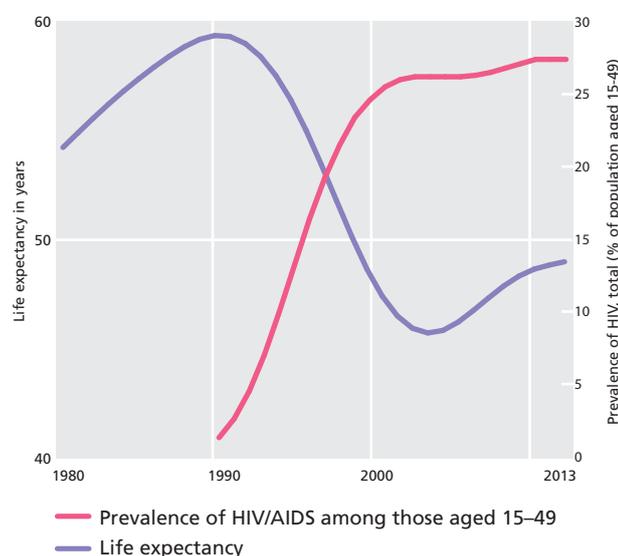
become more level but continue on an incline. In 2012 there were 295 reported cases of malaria in Swaziland. There was a considerable fall in deaths from malaria in the decade 2001–12, however, the number of reported cases increased significantly in the period 2008–11, before decreasing by almost half. In the period 1990–2013 there was a great increase in the estimated incidence of tuberculosis (TB) in Swaziland, accompanied by an increase of more than 100 per cent in estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease.

Non-communicable diseases (NCDs) in Swaziland accounted for an estimated 28 per cent of all mortality in 2012. The most prevalent NCDs in Swaziland are cardiovascular diseases, which accounted for ten per cent of total deaths across all age groups in 2012. Non-communicable variants of respiratory diseases, cancer and diabetes contributed three per cent each to total mortality in 2012. Injuries accounted for nine per cent of deaths in 2012.

Under-five mortality



Life expectancy and HIV/AIDS

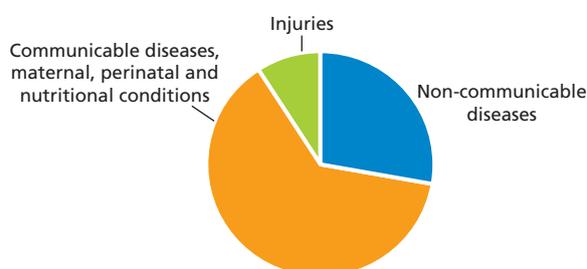


There is a lack of recent data regarding the most commonly diagnosed mental illness in Swaziland.

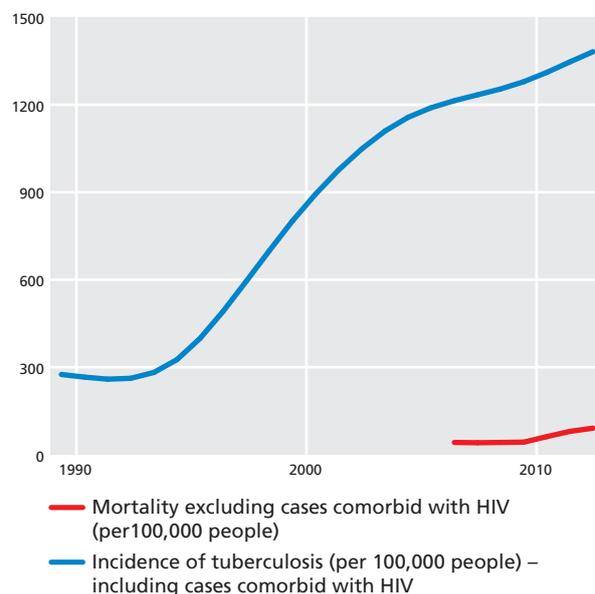
Health systems: In 2012 government expenditure on health was 6.3 per cent of GDP, equivalent to US\$192 per capita. In the most recent survey, conducted between 1997 and 2010, there were 16 doctors, and 320 nurses and midwives per 100,000 people. Additionally, in 2010, 82 per cent of births were attended by qualified health staff and in 2013, 85 per cent of one-year-olds were immunised with one dose of measles. In 2012, 72 per cent of people were using an improved drinking water source and 57 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Swaziland has five pharmaceutical personnel per 100,000 people.

The health system is based on the concept of primary, secondary and tertiary levels of health care. At primary level there are community-based health care workers, clinics and outreach services. At secondary level, there are health centres that also serve as referral points for primary levels. The tertiary level comprises hospitals, specialised hospitals and national referral hospitals. There are 14 hospitals, six of which are private; five government health centres; six public health units; and 215 clinics and outreach sites. The clinics, which are managed by nurses, are mostly located in rural areas, with only 23 having maternity facilities. The country's main referral hospital is the Government Hospital in the capital, Mbabane. There is also a large market for traditional healers.

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



Most pharmaceuticals are imported from countries like India and South Africa. There is a small amount of local pharmaceutical manufacturing, producing a range of solid and liquid formulations. The Swaziland Pharmaceutical Strategic Plan 2012–16 was developed to provide a roadmap for pharmaceutical services development in the health sector.

The most recent mental health legislation was the Mental Health Act 1978.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Swaziland to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 25 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 80 deaths per 1,000 live births, more than three times the target figure. The measles immunisation rate in 2012 was 85 per cent, down from 88 per cent the previous year. Swaziland is unlikely, therefore, to meet either of these targets when the 2015 data is analysed.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Swaziland, maternal mortality should fall to 75 cases per 100,000 live births. In 2013 Swaziland had an adjusted maternal mortality ratio of 310 deaths per 100,000 live births – more than four times the target (this figure was estimated at 320 deaths per 100,000 by UN agencies/World Bank in 2010). Based on the data reported by the country so far, it can be seen that this target is far from being achieved. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2010 this figure stood at 82 per cent, so it is unlikely that this target will be achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. It is encouraging that deaths from malaria have fallen in the period 2001–12, however, the prevalence of the disease has increased from 58 cases in 2008 to 295 in 2012. HIV prevalence in Swaziland was 27.4 per cent in 2012 (in the 15–49 age group); not only is this figure extremely high, but there has also been no reduction in prevalence of the disease since records began in 1990. Additionally, there has been an increase in the estimated incidence of and mortality (when mortality data excludes cases comorbid with HIV) from TB since 1990. Consequently, Swaziland is unlikely to achieve this goal when the 2015 data is analysed.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Around a quarter of health care in Swaziland (26 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 8.5 per cent of GDP in 2012, of which 74 per cent (US\$192 per capita) was covered by the government.

Health services are usually chargeable under a pre-payment scheme, which makes health care unaffordable for some. There is also a shortage of health care professionals, particularly in rural areas. Children, orphans and the disabled get free health care. Some charities and international aid organisations provide free health care. Private health insurance is available, but usually only to those who work in the formal sector. The government is considering introducing a national health insurance scheme with the aim of making health care available to all.

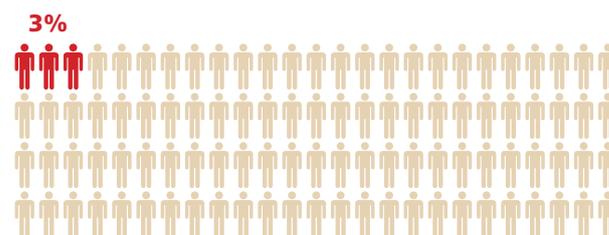
The World Health Organization Country Co-operation Strategic Agenda (2014–19) includes the strengthening of health systems as a priority.

There is a Centre for Disease Control and Prevention active in Swaziland and it is particularly focused on trying to halt the spread of AIDS.

Swaziland was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 2004 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 43,000 people in Swaziland are over the age of 65 – 17 per cent of the total population (2013). At the age of 60 a person in Swaziland can be expected to live for an additional 16 years, on average (2013). Swaziland's Old Age Grant dates back to 2005. Today, monthly pension credits are paid by the state at a rate of US\$20 per person (2007–12) on a pensions-tested basis.

Population over 65



The elderly qualify for free health care. As in neighbouring countries, AIDS has left many older people without children to care for them. In addition, they often find themselves raising their orphaned grandchildren. Charities are active in Swaziland delivering food parcels to the elderly and assisting with other services for older people.

Further information

Ministry of Health: www.gov.sz

Commonwealth Health Online:

www.commonwealthhealth.org/health/africa/swaziland

Tonga



KEY FACTS

Joined Commonwealth:	1970
Population:	105,000 (2013)
GDP p.c. growth:	1.6% p.a. 1990–2013
GNI p.c.:	US\$4,990 (2013)
UN HDI 2012 ranking:	World ranking 100
Life expectancy:	73 years (2013)
Under-five mortality rate (per 1,000 live births):	12 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	4.5% of GDP (2012)

General information

The Kingdom of Tonga, known as 'The Friendly Islands', lies in the central south-west Pacific, surrounded (clockwise from the west) by Fiji, Tuvalu, Kiribati, Samoa, Cook Islands and, to the south, New Zealand. The islands, which straddle the International Date Line, lie

to the east of the Tonga Trench, containing some of the deepest waters of the South Pacific. The main island sub-groups are Tongatapu, Vava'u and Ha'apai. The largest island is Tongatapu.

Climate: Hot and humid in January–March; cooler in April–December. Cyclones may occur November–April.

Environment: The most significant environmental issues are deforestation, damage to coral reefs by excessive coral and shell harvesting, and depletion of sea turtle populations due to hunters.

Population: 105,000 (2013); 24 per cent of people live in urban areas; population growth stood at 0.4 per cent p.a. between 1990 and 2013. In 2012 the birth rate was 25 per 1,000 people (37 in 1970) and life expectancy was 73 years (65 in 1970).

The vast majority of the people are of Polynesian descent. Tonga suffers from heavy emigration, mostly to New Zealand, Australia and the USA. There are 50,478 Tongans living in New Zealand, more than half of whom were born there (2006 New Zealand census).

Economy: Tonga is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Tonga was ten deaths per 1,000 live births in 2013, with an under-five mortality rate of 12 deaths per 1,000 live births in 2012. There has been a consistent decline in the under-five mortality rate since 1990. Although this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of eight deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent known causes of death for children below the age of five years were congenital anomalies (26 per cent), prematurity (24 per cent) and acute respiratory infections (nine per cent). Other contributory causes were intrapartum-related complications (eight per cent), injuries (eight per cent), neonatal sepsis (five per cent) and diarrhoea (two per cent). In 2013 Tonga had an adjusted maternal mortality ratio of 120 deaths per 100,000 live births (this figure was estimated at 110 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) in Tonga accounted for an estimated 74 per cent of all mortality in 2008. The most prevalent NCDs in Tonga are cardiovascular diseases, which accounted for 38 per cent of total deaths across all age groups in 2008. Cancer, non-communicable variants of respiratory diseases and diabetes contributed nine per cent, seven per cent and five per cent to total mortality, respectively (2008).

Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 22 per cent of all mortality in 2008. In 2013 it was reported that there were two people in Tonga living with HIV. Tonga is a non-endemic country for

malaria. There has been a significant overall reduction in both estimated incidence of and estimated mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis (TB) in the period 1990–2013.

The most commonly diagnosed mental illnesses in Tonga are cases linked to substance misuse (drugs and alcohol).

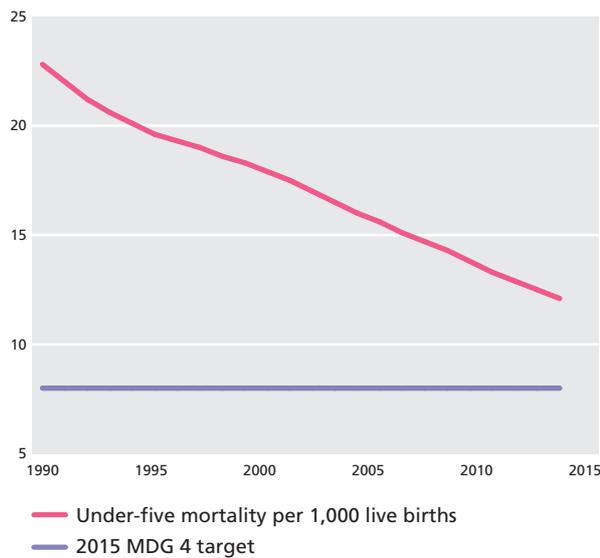
Health systems: In 2012 government expenditure on health was 4.5 per cent of GDP, equivalent to US\$200 per capita. In the most recent survey, conducted in the period 1997–2010, there were 56 doctors, and 388 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 98 per cent of births were attended by qualified health staff and in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2011, 99 per cent of people were using an improved drinking water source and 92 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Tonga has 15 pharmaceutical personnel per 100,000 people.

The Ministry of Health controls Tonga’s national health care system, which provides health care and medication free of charge. Tonga has 12 health centres and seven health clinics, which are staffed by a health officer and nurses. The centres are supported by five hospitals – one on each of the main islands. There are also a small number of private health care providers – these tend to be either traditional healers or private clinics run after hours by government doctors. Tongan hospitals usually have limited outpatient and emergency facilities. There are no pharmaceutical manufacturers or wholesalers in Tonga – the country imports all of its pharmaceutical requirements. The pharmaceutical sector in Tonga is not extensively regulated and there are no legal restrictions on pharmaceutical sales to licensed outlets. This is set to be overhauled under the WHO Country Co-operation Strategic Agenda (2013–17), one of the strategic priorities of which is to establish a national regulatory framework for laboratory services with monitoring and evaluation mechanisms, and a medicines regulatory system, including medicines management beginning with Viola Hospital.

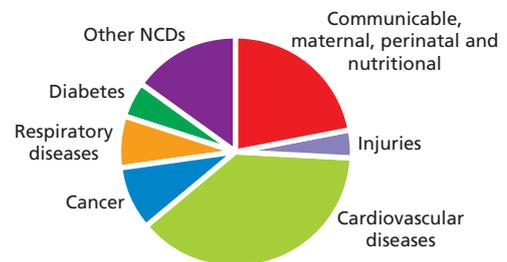
There is dedicated mental health legislation in the Mental Health Act, which was initiated and last revised in 2001.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

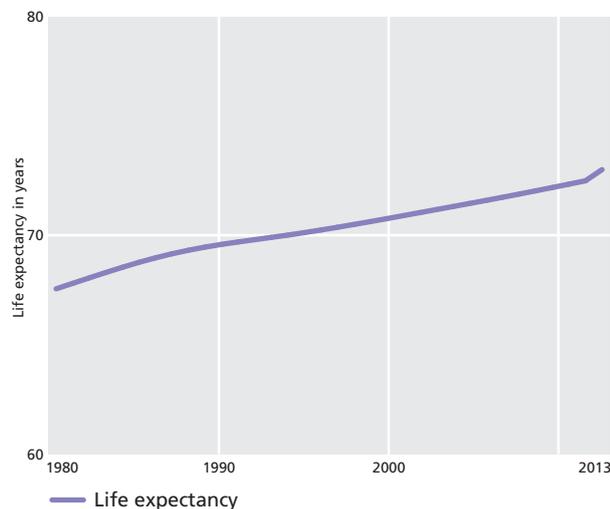
Under-five mortality



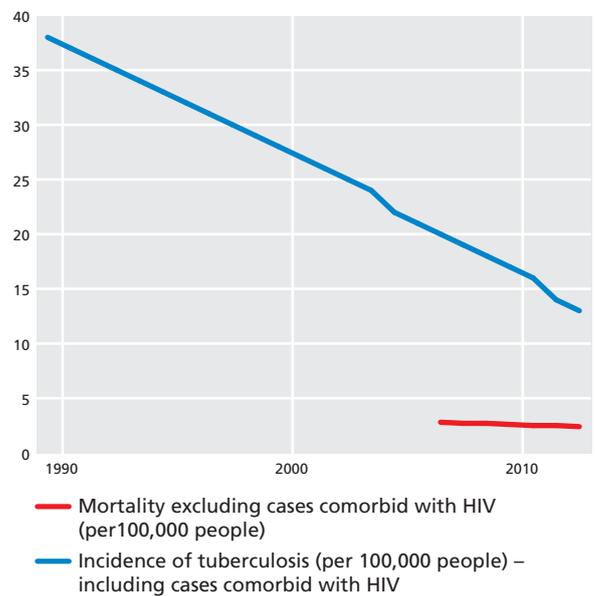
Mortality by cause of death (% of all deaths), 2008



Life expectancy



Tuberculosis: Incidence and mortality



For Tonga to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to eight and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2012 under-five mortality stood at 13 deaths per 1,000 live births and measles immunisation stood at 95 per cent. Tonga has been progressively reducing child mortality, but it may not have met the target when the 2015 data is analysed. Measles immunisation has seen a decrease from 99 per cent to 95 per cent, making it unlikely that this target will be reached.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Tonga, the maternal mortality ratio should fall to 17 cases per 100,000 live births. In 2013 adjusted maternal mortality in Tonga was 120 deaths per 100,000 live births (this figure was estimated by UN agencies/ World Bank as 110 in 2010). Given that maternal mortality is currently more than seven times the target figure, Tonga is very unlikely to meet this part of MDG 5. Another part of MDG 5 stipulates that 100 per cent of births must be attended by a skilled health professional. In the year 2010 this figure stood at 99 per cent, so this target has virtually been achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Tonga has a low estimated incidence of TB, which has been gradually declining since 1990. The country is making progress towards the achievement of MDG 6.

In November 2013 Tonga launched its Tonga Millennium Development Goals Acceleration Framework, with a particular focus on reducing the country's levels of NCDs (MDG target 6c). The United Nations Development Programme is providing support in co-ordinating various agencies, service providers and development partners to implement an action plan for the new framework. It will also provide policy advisory services relating to the prevention and treatment of NCDs, help advocate for healthy lifestyles, and mobilise development partners and donors to address the resource gaps identified in the action plan.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than a fifth of health care in Tonga (16 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 5.4 per cent of GDP in 2012, of which 84 per cent (US\$200 per capita) was covered by the government.

A WHO report in 2012 found that access to health care is good for the majority of people in Tonga, with the exception of communities on the most remote islands.

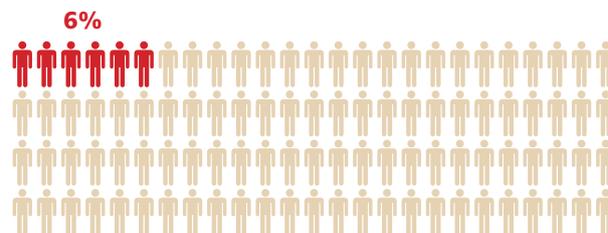
The Ministry of Health's mission statement is: 'To respond effectively to the health needs of the Tongan people by providing the appropriate range and level of high quality health services and being accountable for the outcomes of these services.' In the longer term, it aspires for Tonga to become 'the healthiest nation in the Pacific Rim' by 2020.

In particular, Tonga is working on building its capacity to prevent and control NCDs, particularly obesity and hypercholesterolaemia.

Tonga is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Around 6,000 people in Tonga are over the age of 65 – six per cent of the total population (2013). At the age of 60 a person in Tonga can be expected to live for an additional 19 years, on average (2013). Overall, public pension spending is equivalent to 0.9 per cent of the country's total economic output (2005).

Population over 65



Like other Pacific nations, the elderly in Tonga have traditionally been cared for by younger generations of their extended family. But the growth of the cash economy, increasing rural–urban migration and population growth have seen this traditional 'informal safety net' weaken. Consequently, the government has been looking for other ways of supporting elderly people when they have been left in vulnerable circumstances.

Tonga is part of the regional the programme Social Protection of the Vulnerable in the Pacific. The Tongan Ministry of Finance and National Planning, acting through the Asian Development Bank and the Japan Fund for Poverty Reduction, is working with non-governmental organisation Ma'a Fafine Moe Famili on the Tonga Social Service Pilot, which began in 2012. The pilot project seeks to provide social services to the elderly on the island of Ha'apia and rural outer areas of Tongatapu, which will include, where required, home visits, annual health checks and medical referrals. Home visits range from regular basic care to visits from a nurse and delivery of medicine, if necessary.

Further information

Ministry of Health: www.health.gov.to

Commonwealth Health Online:
www.commonwealthhealth.org/health/pacific/tonga



Trinidad and Tobago



KEY FACTS

Joined Commonwealth:	1962
Population:	1,341,000 (2013)
GDP p.c. growth:	3.5% p.a. 1990–2013
GNI p.c.:	US\$15,760 (2013)
UN HDI 2014:	World ranking 64
Life expectancy:	70 years (2013)
Under-five mortality rate (per 1,000 live births):	21 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	2.7% of GDP (2012)

General information

The country, the most southerly of the West Indian island states, is situated 11.2 km off the Venezuelan coast. It consists of two islands: Trinidad and Tobago.

Climate: Tropical, tempered by north-east trade winds, with a temperature range of 22–31°C and an average annual rainfall of 1,631 mm. The dry season is January–May and the wet season June–December, with a short dry sunny season called the Petit Careme in September–October.

Environment: The most significant environmental issues are water pollution from agricultural chemicals, industrial wastes and raw sewage; oil pollution of beaches; deforestation; and soil erosion.

Population: 1,341,000 (2013); of which some 54,000 live on Tobago; nine per cent of people live in urban areas. The population growth rates stood at 0.4 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 14 per 1,000 people (27 in 1970) and life expectancy was 70 years (66 in 1970).

The population is about 40 per cent Indian, 38 per cent African and 21 per cent mixed descent, with smaller numbers of people of European, Latin American and Chinese descent (2000 census).

Economy: Trinidad and Tobago is classified as a high-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Trinidad and Tobago was 19 deaths per 1,000 live births in 2013, with an under-five mortality rate of 21 deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1990 that, although encouraging, is not yet in line with the country's target of ten deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent causes of death for children below the age of five years were prematurity (28 per cent), congenital anomalies (26 per cent) and intrapartum-related complications (nine per cent). Other contributory causes were acute respiratory infections (eight per cent), injuries (seven per cent), neonatal sepsis (four per cent) and HIV/AIDS (one per cent). In 2013 Trinidad and Tobago had an adjusted maternal mortality rate of 84 deaths per 100,000 live births (an estimate from UN agencies/World Bank).

Burden of disease: Non-communicable diseases (NCDs) in Trinidad and Tobago accounted for an estimated 80 per cent of all mortality in 2012. The most prevalent NCDs in Trinidad and Tobago are cardiovascular diseases, which accounted for 32 per cent of total deaths across all age groups in 2008. Cancer, diabetes and non-communicable variants of respiratory diseases contributed 16 per cent, 15 per cent and three per cent to total mortality, respectively (2012). Injuries accounted for 11 per cent of deaths in 2012.

Communicable diseases along with maternal, perinatal and nutritional conditions in Trinidad and Tobago accounted for an estimated nine per cent of all mortality in 2012. The prevalence of HIV in Trinidad and Tobago, as a percentage of people aged 15–49 years, stood at 1.7 per cent in 2012. HIV prevalence in Trinidad and Tobago has risen since 1990, although the rate of its growth decreased in the period 2000–12. Trinidad and Tobago is a non-endemic country for malaria. The estimated incidence of tuberculosis (TB) doubled in the period 1990–2010, before

decreasing slightly in 2010–12. During the same time estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease saw a slight overall decrease.

The most commonly diagnosed mental health illnesses in Trinidad and Tobago are schizophrenia and mood disorders.

Health systems: In the most recent survey, conducted between 1997 and 2010, there were 118 doctors, and 356 nurses and midwives per 100,000 people. Additionally, in 2012, 100 per cent of births were attended by qualified health staff and in 2013, 91 per cent of one-year-olds were immunised with one dose of measles. In 2010, 94 per cent of people were using an improved drinking water source and in 2012, 92 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Trinidad and Tobago has 49 pharmaceutical personnel per 100,000 people.

Trinidad and Tobago has three general hospitals, two district hospitals, four specialist hospitals and more than 100 health

centres. The private health sector is smaller and includes a variety of private health care providers, including physicians, dentists, pharmacists and opticians. All private hospitals are required to apply for a licence to operate. There are various distribution and retail pharmaceutical operations in the country.

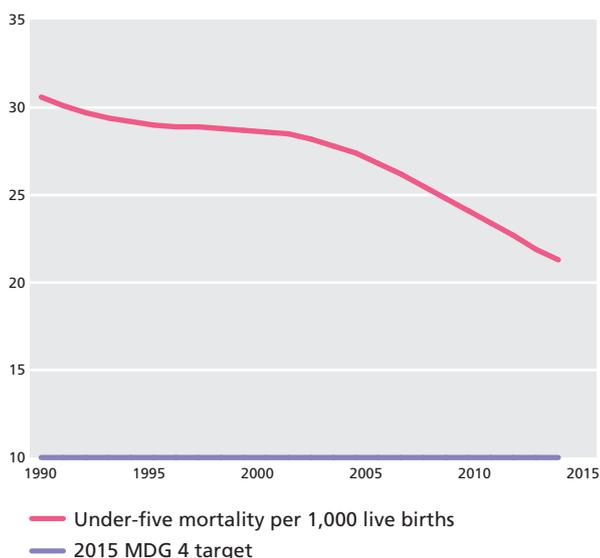
The most recent legislative action relating to mental health in Trinidad and Tobago is the Mental Health Act Amendment 1999.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

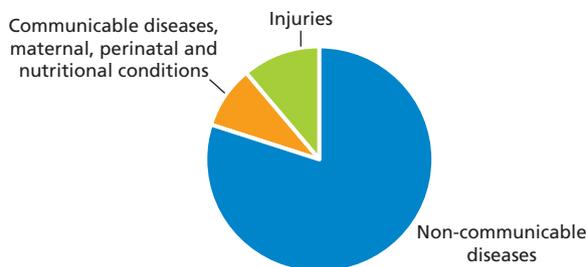
For Trinidad and Tobago to achieve its targets for the reduction of child mortality, which form MDG 4, Trinidad and Tobago should have reduced under-five deaths per 1,000 live births to ten and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 21 deaths per 1,000 live births and measles immunisation at 91 per cent. While the under-five mortality rate shows an improvement from 2011, when it stood at 25 deaths per 1,000 live births, the rate of measles immunisation decreased in this time period, from 92 per cent. There has also been an overall increase in infant mortality from 16 per 1,000 live births in 2008 to 18 in 2013. Consequently, Trinidad and Tobago is unlikely to achieve MDG 4.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-

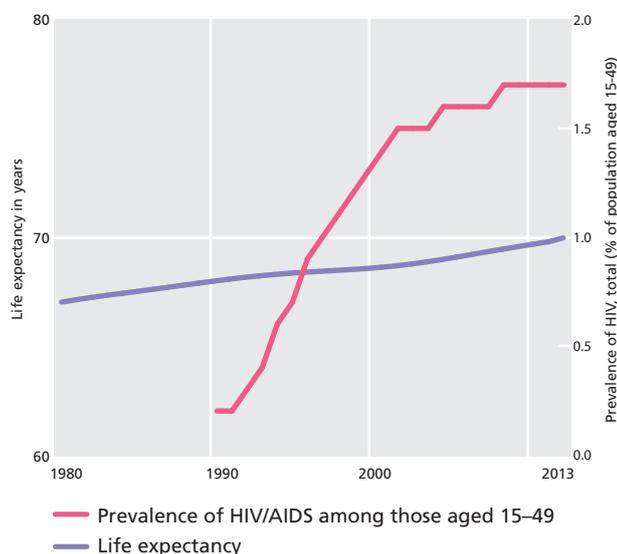
Under-five mortality



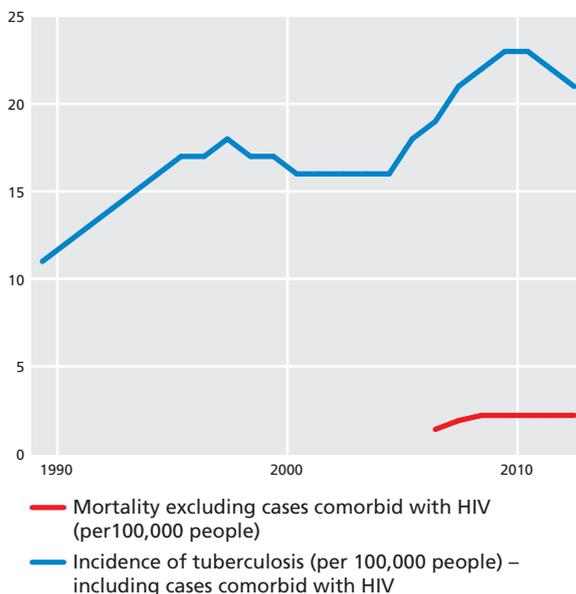
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



quarters between 1990 and 2015. For Trinidad and Tobago, maternal mortality should fall to 22 cases per 100,000 live births. In 2013 the country had an adjusted maternal mortality ratio of 84 maternal deaths per 100,000 live births (an estimate from UN agencies/World Bank), nearly four times the target figure. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2012 this figure already stood at 100 per cent, so this target has been achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Prevalence of HIV in Trinidad and Tobago has seen no decrease since 1990, plateauing at 1.7 per cent in the period 2008–13 for the 15–49 age group. Additionally, there has been an increase in the estimated incidence of tuberculosis (TB) and in the estimated mortality (when mortality data excludes cases comorbid with HIV) from TB since 1990. Consequently, significant progress in these areas is required if the country is to achieve MDG 6, which it is unlikely to do when the 2015 data is analysed.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Half of all health care in Trinidad and Tobago (50 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 5.4 per cent of GDP in 2012, of which 50 per cent (US\$490 per capita) was covered by the government.

Public health care in Trinidad and Tobago is free for all citizens and is financed by the government and taxpayers. This includes specialist care, including for the treatment of cancer. Dental care is provided free of charge to under-18s, with free emergency care is also available for those older than 18; free dental treatment is, in some cases, also extended to new mothers and the elderly. Non-residents of Trinidad and Tobago are provided with free health treatment for injuries only.

In 2013 the Pan American Health Organization and the World Health Organization awarded specialist grants for research on universal health coverage to Trinidad and Tobago

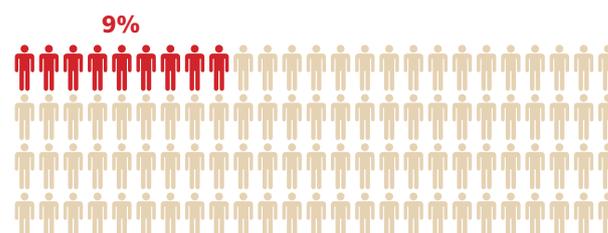
Trinidad and Tobago was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1978 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant

commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 121,000 people in Trinidad and Tobago are over the age of 65 – nine per cent of the total population (2013). At the age of 60 a person in Trinidad and Tobago can be expected to live for an additional 18 years, on average (2013). Trinidad and Tobago's Senior Citizens' Pension dates back to 1939. Entitlement to a pension was legislated in 2010. Today, monthly pension credits are paid by the state at a rate of US\$468 per person (2007–12) on a means-tested basis. Overall, public pension spending is equivalent to 4.4 per cent of the country's total economic output (2010).

There is a high standard of social welfare in Trinidad and Tobago. Disadvantaged senior citizens are eligible for several welfare assistance grants as citizens of Trinidad and Tobago; these grants include: a clothing grant, dietary grant, disability allowance, emergency housing repair grant and home help grant.

Population over 65



There are several programmes run by the government to help to improve and provide services and assistance to the elderly in Trinidad and Tobago. This includes the Geriatric Adolescent Partnership Programme, which is designed train young islanders in the practical skills of geriatric care. There are more than 20 senior citizen nursing homes, mainly on Trinidad, as well as day nursing centres, that provide speciality care for elderly residents. The government also provides geriatric in-home care for elderly persons in Tobago who either live alone or are left alone during the day. Senior citizens are entitled to apply for a free bus pass.

Further information

Ministry of Health: www.health.gov.tt

Commonwealth Health Online: www.commonwealthhealth.org/health/americas/trinidad_and_tobago



Tuvalu



KEY FACTS

Joined Commonwealth:	1978
Population:	10,000 (2013)
GDP p.c. growth:	1.7% p.a. 1990–2013
GNI p.c.:	US\$6,630 (2013)
Life expectancy:	65 years (est 2012)
Under-five mortality rate (per 1,000 live births):	29 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	15.4% of GDP (2012)

General information

Tuvalu, formerly the Ellice Islands, is a group of atolls lying south of the equator in the western Pacific Ocean, south of Kiribati and north of Fiji. Funafuti, the main island and capital, lies 1,046 km north of Suva, Fiji. The other islands are Nanumanga, Nanumea, Niulakita, Niutao, Nui, Nukufetau, Nukulaelae and Vaitupu.

Climate: The mean annual temperature is 30°C, with little seasonal variation, though March–October tends to be cooler.

Humidity is high. Trade winds blow from the east for much of the year. Although the islands are north of the recognised hurricane belt, severe cyclones struck in 1894, 1972 and 1990. Rainfall is high, averaging 3,535 mm p.a. The wettest season is November–February.

Environment: There are no streams or rivers in the country and ground water is not safe to drink; water needs are met by catchment of rainwater and, increasingly, by desalination. The Japanese government has built one desalination plant in Tuvalu and plans to build another. Some 40 per cent of the island of Funafuti was severely damaged during World War II and is virtually uninhabitable. Other significant environmental issues are beachhead erosion due to the removal of sand for building materials; excessive clearance of forest undergrowth for use as fuel; damage to coral reefs from the spread of the Crown of Thorns starfish; and rising sea levels threatening the underground water table.

Population: 10,000 (2013). The population density on inhabited islands is very high, especially on Funafuti; 58 per cent of people live in urban areas. The population growth rate stood at 0.4 per cent p.a. between 1990 and 2013. In 2012 the birth rate was estimated at 23 per 1,000 people and life expectancy was estimated at 65 years.

In February 2000 a request was made to New Zealand for resettlement of about a third of Tuvalu's population, which was threatened by rising sea levels.

The Tuvaluans are a Polynesian people.

Economy: Tuvalu is classified as an upper-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Tuvalu was 24 deaths per 1,000 live births in 2013, with an under-five mortality rate of 29 deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1990. Although this decline is encouraging, the under-five mortality rate is not yet in line with the country's target of 19 deaths per 1,000 live births, as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent known causes of death for children below the age of five years were injuries (23 per cent), prematurity (17 per cent) and congenital anomalies (16 per cent). Other contributory causes were birth asphyxia (ten per cent), pneumonia (nine per cent) and neonatal sepsis (six per cent).

Burden of disease: Non-communicable diseases (NCDs) accounted for an estimated 74 per cent of all mortality in Tuvalu in 2008. The most prevalent NCDs in Tuvalu are cardiovascular diseases, which accounted for 38 per cent of total deaths across all age groups in 2008. Cancer, non-communicable variants of

respiratory diseases and diabetes contributed ten per cent, six per cent and five per cent to total mortality, respectively (2008).

Communicable diseases along with maternal, perinatal and nutritional conditions in Tuvalu accounted for an estimated 21 per cent of all mortality in 2008. A government paper on HIV/AIDS reported that in 2010 there were ten people living with HIV in Tuvalu. Tuvalu is a non-endemic country for malaria. The estimated incidence of tuberculosis (TB) decreased by more than half overall in the period 1990–2013, although the period 2011–12 saw an increase in incidence from 152 per 100,000 people to 241; this then dropped to 228 cases in 2013. Estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease has dropped slightly overall in the period 2007–13, although there was great fluctuation over this time.

There is a lack of data to indicate the most commonly diagnosed psychiatric disorder.

Health systems: In 2012 government expenditure on health was 15.4 per cent of GDP, equivalent to US\$577 per capita. In the most recent survey, conducted between 1997 and 2010, there were 109 doctors, and 582 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 98 per cent of births were attended by qualified health staff and in 2013, 96 per cent of one-year-olds were immunised with one dose of measles. In 2012, 98 per cent of people were using an improved drinking water source

and 83 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–12, reports that Tuvalu has 18 pharmaceutical personnel per 100,000 people.

Legislation in Tuvalu prevents the operation of private medical practices and pharmacies, so all facilities available on the islands are public. The country's only hospital, Princess Margaret Hospital, is located in Funafuti and is capable of providing basic primary health care, and dental and pharmaceutical services. There are also eight medical centres, located on the outer islands, which are staffed by nurses. Serious cases are sent to Fiji or New Zealand under a medical referral scheme, the Tuvalu Medical Treatment Scheme. For diagnosis of some diseases, specimens need to be sent to laboratories overseas.

Tuvalu's main pharmacy is located in the Princess Margaret Hospital, and is responsible for the procurement of drugs and reproductive health commodities from suppliers. The Department of Pharmacy, which is a branch of the Ministry of Health, is responsible for organising training for nurses working in Tuvalu's medical centres to ensure that they are proficient in the ordering and management of medicines and drugs. There are no licensed pharmaceutical manufacturers in Tuvalu. The National Drug and Therapeutic Committee, part of the Ministry of Health, functions as a regulation authority for pharmaceuticals.

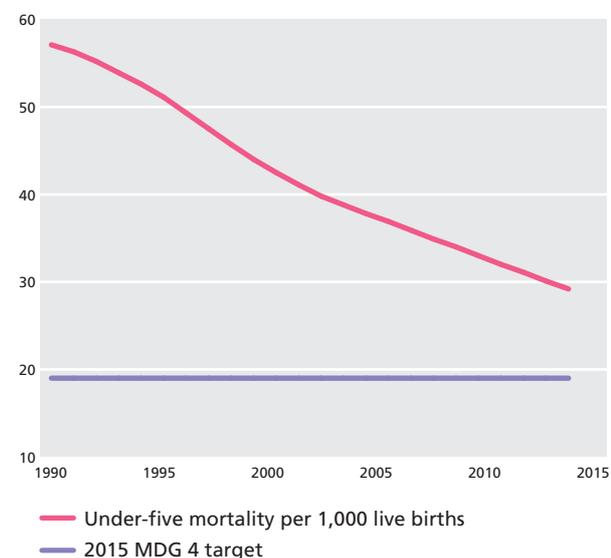
Australia and New Zealand are the main bilateral donors for development assistance in the health sector.

The most recent act of parliament relating to mental health in Tuvalu is the Mental Treatment Ordinance 1973. There are no psychiatric hospitals in Tuvalu and mental health services are provided through outpatient facilities, with a heavy reliance on psychiatric nurses and psychiatric beds in general hospitals.

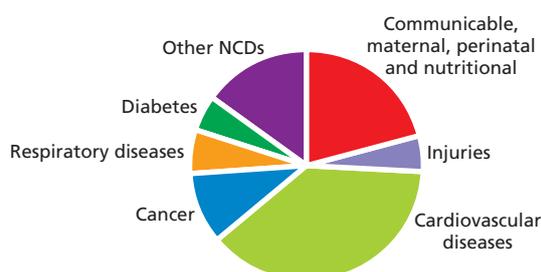
Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Tuvalu to achieve its targets for the reduction of child mortality, which forms MDG 4, it should have reduced under-five deaths per

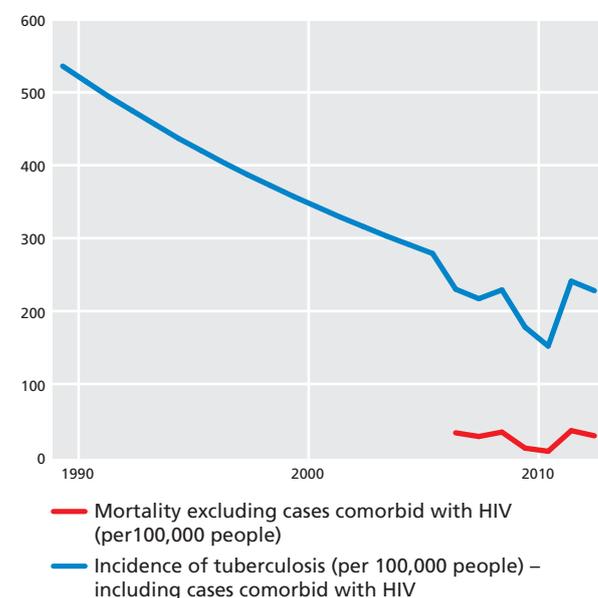
Under-five mortality



Mortality by cause of death (% of all deaths), 2008



Tuberculosis: Incidence and mortality



1,000 live births to 19 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 29 deaths per 1,000 live births and in 2012 measles immunisation at 98 per cent. These figures have remained static since 2011, suggesting that the country is unlikely to meet the under-five mortality target. Tuvalu's high rate of measles immunisation is promising, suggesting that it has a good chance of achieving 100 per cent immunisation when the 2015 data is analysed.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. There is no data available on this figure for the last few years. Part of the goal stipulates that 100 per cent of births must be attended by a skilled health professional. In the period 2007–12 this figure stood at 98 per cent, so this target is close to being achieved.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. There has been a significant reduction in the estimated incidence of TB since 1990, however, 2011–12 saw a marked increase in the incidence of the disease. Estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease has dropped slightly overall in the period 2007–13, although there was great fluctuation over this time. Tuvalu is unlikely to achieve MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

All health care in Tuvalu is covered by the government. Total health expenditure constituted 15.4 per cent of GDP in 2012, equivalent to US\$577 per capita.

The Tuvalu Medical Treatment Scheme ensures that people who have conditions beyond the scope of Tuvalu's health services are treated in Fiji or New Zealand.

Tuvalu began to reform its health care system in 2008 with the development of a new health master plan to guide the work of the Ministry of Health for the next decade. The Strategic Health Plan 2009–19 aims at ensuring the highest attainable standard of health for all people of Tuvalu by ensuring legislative and budgetary support for efficient and effective health services; providing high-quality and cost-effective management of health services; improving the quality and cost effectiveness of curative medical services; and focusing on primary health care. The plan also emphasises the improvement of services for mother and child health in the areas of immunisation, childhood illness, nutrition, breastfeeding and reproductive health. Reducing TB is another aim.

Tuvalu is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to the ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Nine per cent of the population is aged 60 or older. Like other Pacific nations, the elderly in Tuvalu have traditionally been cared for by younger generations of their extended family. However, migration to Funafuti and overseas has left some older people isolated with no family left locally to care for them.

The Red Cross runs a programme on Funafuti that sees volunteers visiting older people at home to check on their well-being. The elderly have also been identified as a priority for help in the event of a natural disaster.

Further information

Ministry of Health:

www.tuvaluislands.com/gov_addresses.htm

Commonwealth Health Online:

www.commonwealthhealth.org/health/pacific/tuvalu

2,662,258 reported cases of malaria in the country – a significant increase from 231,873 in 2011. The number of deaths from malaria has fluctuated over the period 2006–12, increasing overall from 4,252 in 2006 to 6,585 in 2012. In the period 1990–2013 the estimated incidence of tuberculosis (TB) fell by more than 500, to 166 cases per 100,000 people, and mortality (when excluding cases comorbid with HIV) from tuberculosis (TB) more than halved.

Non-communicable diseases (NCDs) in Uganda accounted for an estimated 27 per cent of all mortality in 2012. The most prevalent NCDs in Uganda were cardiovascular diseases, which accounted for nine per cent of total deaths across all age groups in 2012. Cancer, non-communicable variants of respiratory diseases and diabetes contributed five per cent, two per cent and one per cent to total mortality, respectively (2012). Injuries accounted for 13 per cent of deaths in 2012.

The most commonly diagnosed mental illnesses in Uganda include post-traumatic stress disorder.

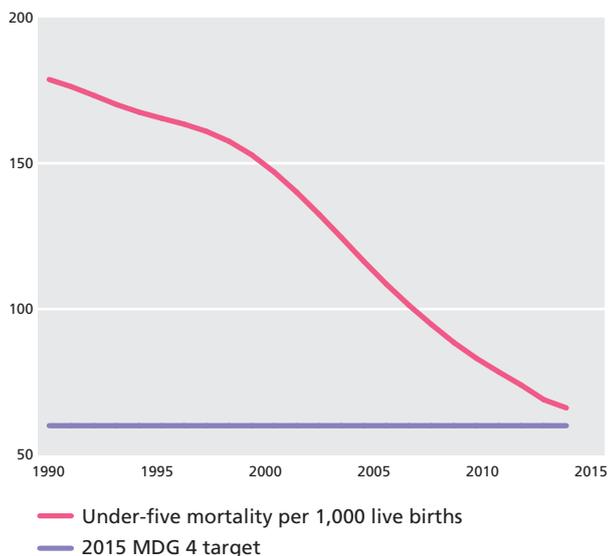
Health systems: In 2012 government expenditure on health was 1.9 per cent of GDP, equivalent to US\$10 per capita. In the most recent survey, conducted between 1997 and 2010, there were 12 doctors, and 131 nurses and midwives per 100,000 people. Additionally, in 2011, 58 per cent of births were attended by qualified health staff and in 2013, 82 per cent of one-year-olds were immunised with one dose of measles. In 2012, 75 per cent of people were using an improved drinking water source and 35 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Uganda has three pharmaceutical personnel per 100,000 people.

Health services in Uganda are provided by a mix of public and private sector organisations and NGOs. Public sector facilities include two national referral hospitals, both in Kampala; 11 regional referral hospitals; 43 general hospitals; and 112 district health centres. Notable private hospitals include International Hospital Kampala and Kololo Hospital, also in Kampala.

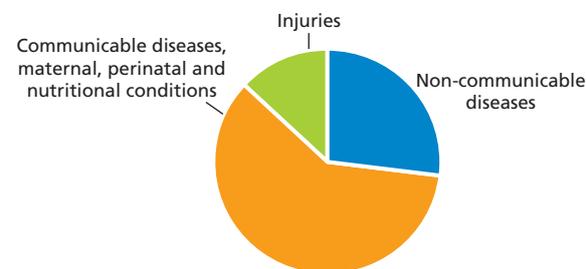
Pharmaceuticals are a major constituent of the country's total imports, although there is a small-scale pharmaceutical industry involved in distribution, packaging and assembling goods, such as injectables, liquid mixtures, aspirin, capsules and disposable syringes.

The most recent act of government relating to mental health is the Mental Treatment Act 1964.

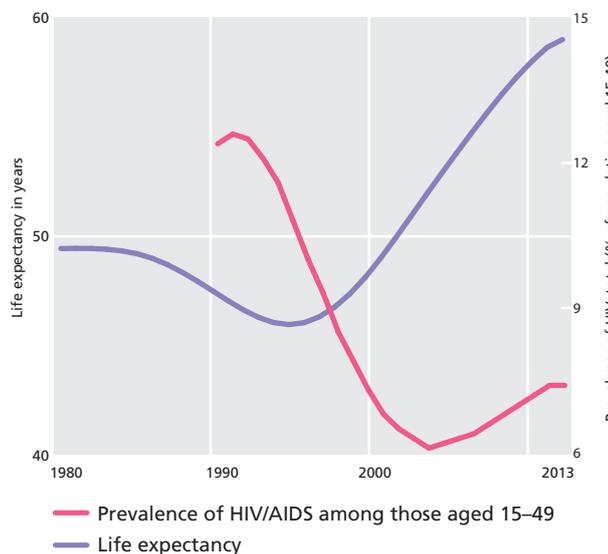
Under-five mortality



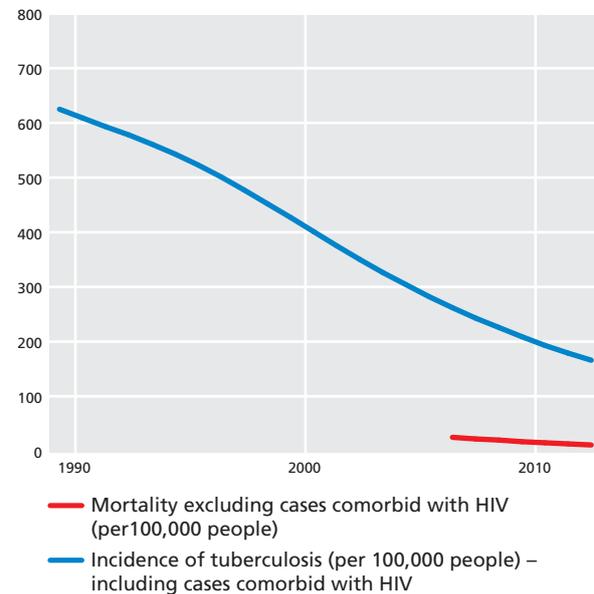
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Uganda to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 60 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 66 deaths per 1,000 live births, a notable decrease from 69 in 2012, and measles immunisation at 82 per cent, up from 75 per cent in 2011. The United Nations Development Project (UNDP) has noted that Uganda has reduced child mortality markedly since the publication of the 2010 MDG Report, and suggests that if the recent accelerated rate of progress is maintained, Uganda has a good chance of fulfilling the requisites of the goal by 2015.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Uganda, maternal mortality should fall to 150 cases per 100,000 live births. In 2013 Uganda had an adjusted maternal mortality ratio of 360 deaths per 100,000 live births (this figure was estimated at 310 deaths per 100,000 by UN agencies/World Bank in 2010). It is therefore very unlikely that Uganda will meet this target when the 2015 data is analysed, as it would need to more than halve its maternal mortality ratio in just two years. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2011 this figure stood at 58 per cent and so this target is also unlikely to be met. The UNDP notes that health care in Uganda has shown progress across the majority of indicators for maternal health since the publication of the 2010 MDG report, but states that it is unlikely to meet the targeted reduction in overall maternal mortality by 2015.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. While HIV prevalence in Uganda has shown an overall reduction since the early 1990s, it has increased since 2006 and the percentage of the population infected with the disease is high at 7.4 per cent (in the 15–49 age group). In addition, confirmed cases of and mortality from malaria in the country are high. Estimated levels of TB incidence and mortality are high, but levels of both have reduced significantly since 1990.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than a quarter of health care in Uganda (24 per cent) was government funded in 2012. The remaining 76 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted eight per cent of GDP in 2012. Expenditure by government amounts to US\$10 per capita.

The UNDP has noted that progress has been registered in reducing the burden of malaria and tuberculosis. Equally, improved access to medical treatment has reduced the mortality rate associated with HIV/AIDS. However, it has been found that the prevalence rate among 15–24-year-olds has increased, which could be attributed to

improved treatment indirectly contributing to a rise in the number of new infections by prolonging the lives of those living with HIV.

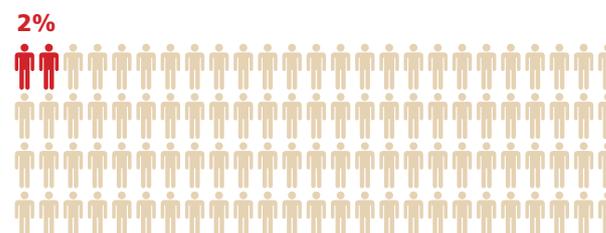
A World Health Organization (WHO) report in 2009 found that the resources available for health are less than required to deliver the Uganda National Minimum Health Care Package. Public health care is free, in theory, but there are often unofficial fees and patients can be asked to buy drugs and surgical items privately. In rural areas, health care coverage can be patchy and the costs of travelling to the nearest clinic are prohibitive for some.

The WHO Country Co-operation Strategy (2009–14) prioritises planning to ensure equitable resource allocation and harmonisation of donor projects, as well as generally strengthening the country's health systems. The National Health Policy II (2010–20) includes a Health Sector Strategic and Investment Plan, the aim of which is 'the attainment of a good standard of health by all people in Uganda, in order to promote a healthy and productive life'.

Uganda was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1987 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 910,000 people in Uganda are over the age of 65 – two per cent of the total population (2013). At the age of 60 a person living in Uganda can be expected to live for an additional 17 years, on average (2013). Uganda's Senior Citizens Grant, which has been piloted in 14 districts, dates back to 2011. Today, monthly pension credits are paid by the state at a rate of US\$9 per person (2007–12) on a universal basis in the districts where the pensions have been introduced. Overall, public pension spending is equivalent to 0.4 per cent of the country's total economic output (2011).

Population over 65



There are several old people's homes in Uganda. Traditionally, the elderly are cared for by younger generations of extended family. However, AIDS has killed the children of some older people, leaving them vulnerable. The UK-based Quicken Trust runs a Sponsor an Elderly Person scheme that provides food and pays for health care for elderly people in rural Uganda.

Further information

Ministry of Health: www.health.go.ug

Commonwealth Health Online:

www.commonwealthhealth.org/health/africa/uganda



United Kingdom



KEY FACTS

Population:	63,136,000 (2013)
GDP p.c. growth:	1.5% p.a. 1990–2013
GNI p.c.:	US\$39,140 (2013)
UN HDI 2014:	World ranking 14
Life expectancy:	81 years (2013)
Under-five mortality rate (per 1,000 live births):	5 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	8% of GDP (2012)

General information

The United Kingdom of Great Britain and Northern Ireland (UK) consists of a group of islands off the western coast of Europe. The largest, Great Britain, comprises three countries: England, Scotland and Wales. Ireland, to the west, consists of the UK's province of Northern Ireland and the Irish Republic. There are several offshore islands and island groups, the largest lying off Scotland.

The UK is a union of four countries: England, Scotland, Wales and Northern Ireland. The Crown dependencies (the Channel Islands and the Isle of Man) are largely self-governing with the UK responsible for their defence and international relations and are not part of the United Kingdom.

Climate: The climate is mild, cool-temperate and oceanic. Rainfall is generally heaviest in September–January. Air currents across the Atlantic are warmed by the Gulf Stream and make the rainfall unpredictable but also give the country a warmer climate than usual for its latitude. The northerly latitude gives long days in summer and long nights in winter.

Environment: The most significant environmental issues are continuing reduction of greenhouse gas emissions in line with Kyoto Protocol commitments; air pollution, mainly by motor vehicles; and the need to recycle a progressively larger proportion of solid waste.

Population: 63,136,000 (2013); England 83.6 per cent, Scotland 8.6 per cent, Wales 4.9 per cent and Northern Ireland 2.9 per cent (2001 census); 82 per cent of people live in urban areas and 28 per cent in urban agglomerations of more than a million people. The population growth rate stood at 0.4 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 12 per 1,000 people (16 in 1970); and life expectancy was 81 years (72 in 1970 and around 50 in 1901).

According to the 2001 census, the ethnic origins of the population are 92.1 per cent European; 4.0 per cent Asian (1.8 per cent Indian, 1.3 per cent Pakistani, 0.5 per cent Bangladeshi); two per cent Caribbean or African; and 0.4 per cent Chinese.

Economy: The UK is classified as a high-income economy by the World Bank.

Health

Child and maternal health: The rate of infant mortality in the UK was five deaths per 1,000 live births in 2013, with an under-five mortality rate of five deaths per 1,000 live births in 2013 – down from nine deaths in 1990. In 2012 the two most prominent causes of death for children below the age of five years were prematurity (40 per cent) and congenital anomalies (27 per cent). Other contributory causes were intrapartum-related complications (seven per cent), acute respiratory infections (four per cent), injuries (three per cent) and neonatal sepsis (one per cent). In 2013 the UK had an adjusted maternal mortality ratio of eight deaths per 100,000 live births (an estimate from UN agencies/World Bank), down from 12 deaths per 100,000 in 2010. The maternal mortality ratio target for 2015 is three per 100,000 live births.

Burden of disease: Non-communicable diseases (NCDs) in the UK accounted for an estimated 88 per cent of all mortality in 2008. The most prevalent NCDs in the UK were cardiovascular diseases, which accounted for 34 per cent of total deaths across all age

groups in 2008, and cancer, accounting for 27 per cent of all deaths. Non-communicable variants of respiratory diseases and diabetes contributed eight per cent and one per cent to total mortality, respectively (2008).

Communicable diseases along with maternal, perinatal and nutritional conditions in the UK accounted for an estimated eight per cent of all mortality in 2008. Prevalence of HIV in the UK, as a percentage of people aged 15–49 years, is 0.3 per cent (2013). The UK is considered a non-endemic country for malaria by the World Health Organization. However, between 2001 and 2010, there were 17,063 reported cases of ‘traveller’s malaria’ – infections acquired outside the country and brought into the national territory. Estimated deaths from tuberculosis (TB) have fallen since a peak in 2008.

The most commonly diagnosed mental illnesses in the UK are depression and mixed anxiety. One in four people in the UK experience some kind of mental disorder in the course of a year, with one in six suffering a diagnosed disorder at any given time.

Health systems: In 2012 government expenditure on health was 7.8 per cent of GDP, equivalent to US\$3,009 per capita. In the

most recent survey, conducted in 2012, there were 279 medical doctors, and 883 nurses and midwives per 100,000 people. Additionally, 95 per cent of one-year-olds in the UK were immunised with one dose of measles in 2013. In 2012, 100 per cent of the population had access to improved water sources and adequate sanitation facilities.

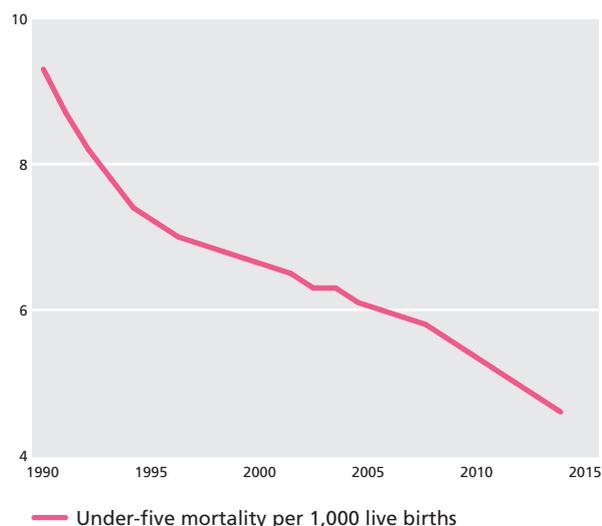
The most recent survey, conducted in 2010, reported that the UK had 67 pharmaceutical personnel per 100,000 people.

Health care in the UK is dominated by the National Health Service (NHS), a public initiative that provides free health care funded mainly through taxation, with a workforce of more than 1.6 million people serving England, Scotland (NHS Scotland), Wales (NHS Wales) and Northern Ireland (HSC). Each system operates independently and is accountable to its national government; however, the coverage applies to all UK citizens no matter which country they reside in.

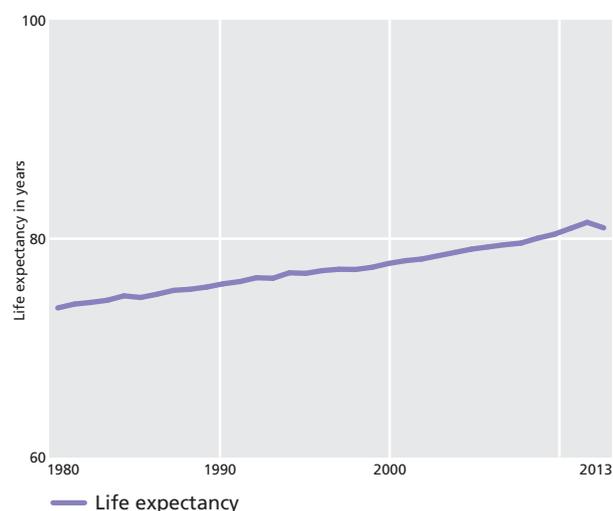
The Department of Health, Social Services and Public Safety in Northern Ireland and the ministers for health in Scotland and Wales are responsible for the reform, improvement and management of health services and education as well as the running of NHS and HSC services in their respective countries.

The Department of Health, England is responsible for leading, funding and shaping health and health care in England. It is

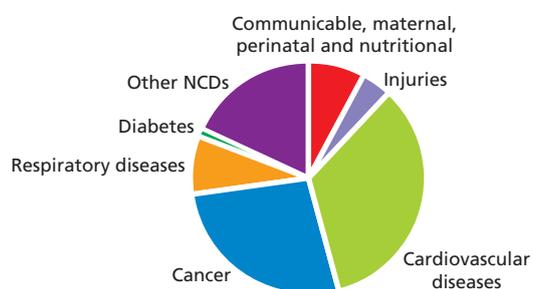
Under-five mortality



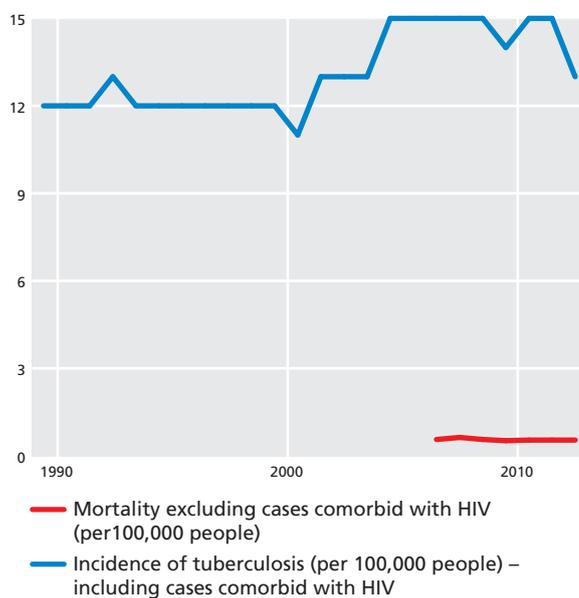
Life expectancy



Mortality by cause of death (% of all deaths), 2008



Tuberculosis: Incidence and mortality



supported by a number of agencies and partner organisations, including the Care Quality Commission, NHS Blood and Transplant, the Human Tissue Authority and Public Health England. The Health and Social Care Act 2012 introduced changes to NHS England, allowing hospitals and GP surgeries to commission any relevant health-care services directly through clinical commissioning groups where this was previously done by regional primary care trusts.

The NHS budget for 2015–16 is £115.4 billion.

In addition to the NHS, there is a thriving private health care system offering a range of services, sometimes funded by employer-sponsored medical insurance. Health insurance providers also market directly to the public. More than 12 per cent of the population is covered by private medical insurance (2011). Most private care is for specialist referrals, after utilising the primary care services of the NHS.

The pharmaceutical industry is highly advanced and is a major contributor to the GDP of the UK. Its pharmaceutical exports account for 7.4 of total global pharmaceutical exports (2011). The sector is the investor in research and development.

The Mental Health Act was introduced to the UK in 1959 and most recently revised, for England and Wales, in 2007. Scotland has the Mental Health (Care and Treatment) Act 2003 and Northern Ireland the Mental Health NI Order 1986. Much mental health treatment is provided through care in the community, a system run by local authorities that provides residential or at-home care for those suffering both physical and mental disabilities.

Main health concerns and plans for remedial action: The UK has a life expectancy of 81 years, showing a sustained increase, up from 76 years in 1990 and 78 years in 2000. Gains have been primarily due to reduced child and maternal mortality, and improved longevity for other age groups, particularly for older people with chronic diseases.

Levels of alcohol consumption and alcohol-related deaths, and the sharp increases in adult and child obesity are among the most pressing public health concerns. Levels of smoking are steadily decreasing, with 20 per cent of over-16s classified as smokers (2012). By comparison, in 1974, 45 per cent of over-16s smoked. The government is investing funds in services to help people stop smoking. In 2011–12 the government collected £12.1 billion in total from tobacco tax, and spent £88.2 million on services to help people stop smoking and £66.4 million on medication to help smokers quit.

A high level of alcohol consumption is a long-standing problem in the UK, but it is slowly decreasing, having hit a peak in the early 2000s. More than one in five adults in Britain thought of themselves as teetotal in 2013, with the proportion of non-drinking young adults (aged 16–24) increasing by more than 40 per cent between 2005 and 2013. In 2010, 65 per cent of alcohol-related deaths in men and 63 per cent of alcohol-related deaths in women were attributed to alcoholic liver disease. In 2012 the government released an alcohol strategy primarily aimed at reducing binge drinking. Measures included plans to make cheap alcohol less accessible and reduce the number of outlets licensed to sell alcohol.

Between 1993 and 2011 there was a notable increase in the proportion of both men and women in the UK who were classified

as clinically obese. By 2004 the UK had one of the highest levels of obesity in Europe at 22.7 per cent, almost twice the European Union average of 13.4 per cent. Childhood obesity is also a growing concern. In the period 2011–12, 9.5 per cent of four- and five-year-olds were obese. Obesity can lead to a number of further health complications, such as increased risk of developing type two diabetes, heart disease and some cancers.

In 2011 the government released its action plan *Healthy Lives, Healthy People: A Call to Action on Obesity in England*, outlining a commitment to achieving an overall decrease in the level of excess weight averaged across all adults and children by 2020.

For definitions and sources see page 314.

Universal health coverage

Less than a fifth of health care in the UK (17 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constitutes 9.4 per cent of GDP, of which 83 per cent (US\$3,009 per capita) was covered by the government.

The NHS, launched in 1948, was set up with the philosophy that good quality health care should be available to all, regardless of wealth – it is free at the point of use for anyone who is a UK resident. In the decades since the NHS was first established, some, usually low, charges have been introduced, such as for prescriptions, dental care and eye tests, with variations between England, Scotland, Wales and Northern Ireland. But people on the lowest incomes usually pay lower, or no, charges.

A Commonwealth Fund survey of health care systems in 11 countries found that Britain's NHS ranked highest over all, beating Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland and the USA. The NHS was rated as the most impressive system for efficiency, effective care, safe care, co-ordinated care, patient-centred care and cost-related problems. It was also rated second for equity.

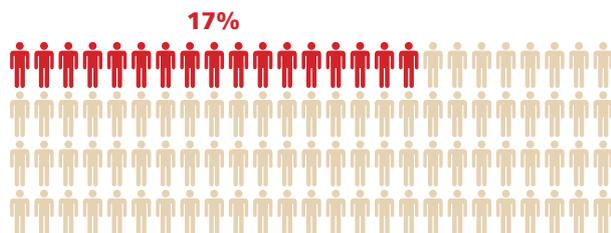
Since 2011, some immigrants, depending on their visa status, have been charged for certain NHS services that would be free for British nationals. This includes antenatal and maternity care, which has led to a rise in the number of unattended home births as families strive to avoid charges that can run to several thousand pounds.

The UK has signed up to and ratified the International Covenant on Economic, Social and Cultural Rights, which includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: In 2013, 17 per cent of the population was over 65 years of age, with people aged 60 expected to live for an additional 24 years, on average. Five per cent of pensions were paid out of public funds in 2009, with monthly pension credits (called the Guarantee Credit) paid by the state at a rate of US\$949 per person (2007–12) on a means-tested basis. Pensions were first introduced in the UK in 1909.

The government committed £300 million for dementia research in February 2015, which will be used to establish an international

Population over 65



dementia institute in England as a base for research and medical trials. Further training for 1.3 million NHS workers in dementia care was also announced as part of the same package. Approximately 850,000 people in the UK suffer from dementia.

A controversial aspect of care for elderly people involves the funding of places in residential or nursing care homes when people become too ill, frail or confused to live independently. Those people with sufficient assets usually have to pay for their own care, home accommodation and most of their medical care, which can run to more than £800 a week. This will often entail elderly people

having to sell their home or spend their life savings on their care. Those people whose assets are below a certain threshold (currently £14,200) will have their care home place funded by the state, while those with assets of between £14,200 and £23,250 pay a means-tested contribution. The Care Act 2014 puts in place a structure for capping care costs, which will be implemented in April 2016.

Women over 50 get free breast cancer screening. The over 65s are offered free flu jabs by their GP surgery. The NHS Bowel Cancer Screening Programme offers tests every two years to all men and women aged 60 to 69.

Further information

Department of Health: www.gov.uk/government/organisations/department-of-health

Department of Health, Social Services and Public Safety (Northern Ireland): www.dhsspsni.gov.uk

Commonwealth Health Online: www.commonwealthhealth.org/europe/united_kingdom



United Republic of Tanzania



KEY FACTS

Joined Commonwealth:	1961
Population:	49,253,000 (2013)
GDP p.c. growth:	6.68% p.a. 1990–2013
GNI p.c.:	US\$630 (2013)
UN HDI 2014:	World ranking 159
Life expectancy:	62 years (2013)
Under-five mortality rate (per 1,000 live births):	52 (2013)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	2.8% of GDP (2012)

General information

The United Republic of Tanzania borders the Indian Ocean to the east, and has land borders with eight countries: (anti-clockwise from the north) Kenya, Uganda, Rwanda, Burundi, the Democratic Republic of Congo (across Lake Tanganyika), Zambia, Malawi and Mozambique. The country includes Zanzibar (consisting of the main island Unguja, plus Pemba and other smaller islands).

Climate: Varies with geographical zones: tropical on the coast, where it is hot and humid (rainy season March–May); semi-temperate in the mountains (with the Short Rains in November–December and the Long Rains in February–May); and drier in the plateau region with considerable seasonal variations in temperature.

Environment: The most significant environmental issues are drought, soil degradation, deforestation, desertification and destruction of coral reefs.

Population: 49,253,000 (2013); 30 per cent of people live in urban areas and seven per cent in urban agglomerations of more than a million people. The population growth rate stood at 2.9 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 39 per 1,000 people (48 in 1970) and life expectancy was 62 years (47 in 1970 and 51 in 1990).

Most of the people are of Bantu origin, with some 120 ethnic groups on the mainland, none of which exceeds ten per cent of the population. The biggest group is the Sukuma; others include Nyamwezi, Maasai, Haya Gogo, Chagga, Nyaliyusa and Hehe. The population also includes Asian and expatriate minorities. The people of Zanzibar are of Bantu, Persian and Arab origin.

Economy: Tanzania is classified as a low-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Tanzania was 36 deaths per 1,000 live births in 2013, with an under-five mortality rate of 52 deaths per 1,000 live births in 2013. There has been a consistent decline in the under-five mortality rate since 1996. The under-five mortality rate has now surpassed the country's target of 56 deaths per 1,000 live births as defined by Millennium Development Goal 4 (MDG 4). In 2010 the three most prominent known causes of death for children below the age of five years were acute respiratory infections (15 per cent), intrapartum-related complications (14 per cent) and prematurity (11 per cent). Other contributory causes were neonatal sepsis (eight per cent), diarrhoea (eight per cent), HIV/AIDS (six per cent) and congenital anomalies (seven per cent). In 2013 Tanzania had an adjusted maternal mortality ratio of 410 deaths per 100,000 live births.

Burden of disease: Communicable diseases along with maternal, perinatal and nutritional conditions accounted for an estimated 58 per cent of all mortality in Tanzania in 2012. The prevalence of HIV in Tanzania, as a percentage of people aged 15–49 years, stood at five per cent in 2013. The period 1990–96 saw a great increase in HIV prevalence, following which the rate decreased to six per cent in 2007, remaining above the 1990 prevalence of five per cent. The number confirmed cases of malaria increased dramatically in 2003, before decreasing significantly for the years 2008 and 2009, the

rate was then seen to rise again and in 2012 stood at 1,986,955 reported cases, while the number of deaths from the disease decreased by almost two-thirds in the period 2006–12. There has been a significant overall decrease in the estimated incidence and mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis (TB) in the period 1990–2012.

Non-communicable diseases (NCDs) accounted for an estimated 30 per cent of all mortality in 2012. The most prevalent NCDs in Tanzania are cardiovascular diseases, which accounted for nine per cent of total deaths across all age groups in 2012. Cancers, diabetes and non-communicable variants of respiratory diseases contributed five per cent, two per cent and one per cent to total mortality, respectively (2012). Injuries accounted for 12 per cent of deaths in 2012.

The most commonly diagnosed mental illnesses in Tanzania are depression and anxiety.

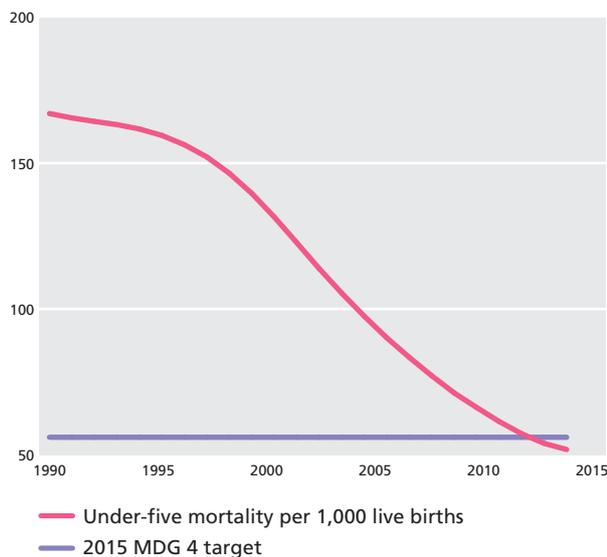
Health systems: In 2012 government expenditure on health was 2.8 per cent of GDP, equivalent to US\$16 per capita. In the most recent survey, conducted between 1997 and 2010, there was one doctor, and 24 nurses and midwives per 100,000 people. Additionally, in 2010, 49 per cent of births were attended by qualified health staff and in 2013, 99 per cent of one-year-olds were immunised with one dose of measles. In 2012, 53 per cent of people were using an improved drinking water source and 12 per cent of the population had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Tanzania has less than one pharmaceutical personnel per 100,000 people.

Tanzania has nine referral hospitals, including one each in Dar es Salaam (Muhimbili National Hospital, eastern zone), in Moshi (northern), in Mwanza (western) and in Mbeya (southern), some of which are part funded by the church or charities. There are also regional and district hospitals, health centres and dispensaries throughout the country. A number of pharmaceutical companies in the country produce antiretroviral drugs from imported ingredients.

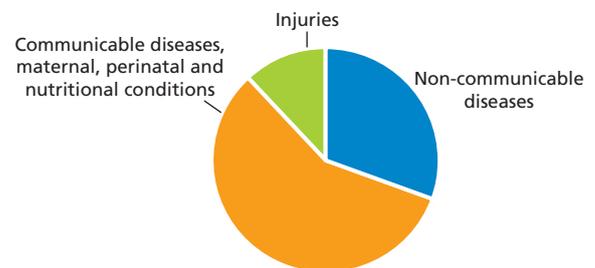
The Tanzania Food and Drug Regulatory Authority regulates pharmaceutical companies.

The most recent act of parliament relating to mental health in Tanzania is the Mental Health Act 2008.

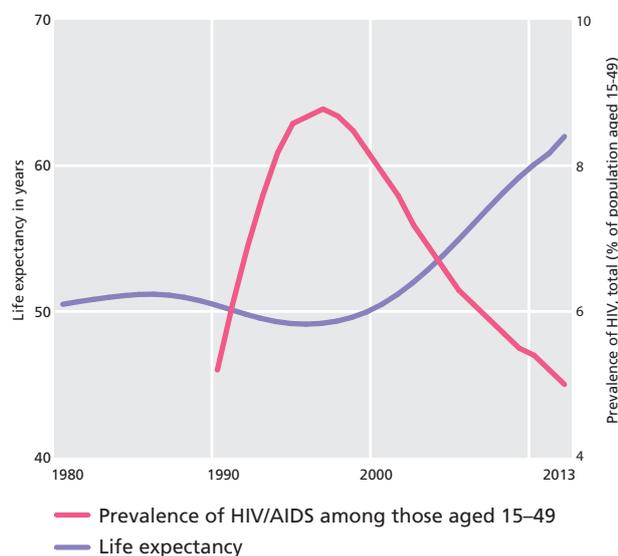
Under-five mortality



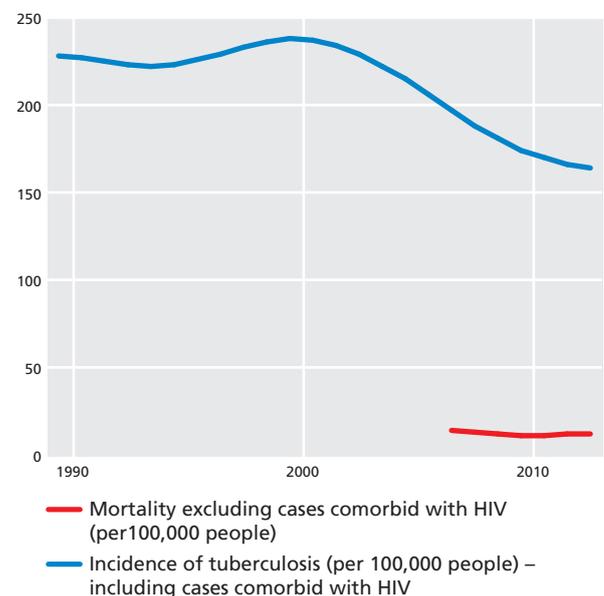
Mortality by cause of death (% of all deaths), 2012



Life expectancy and HIV/AIDS



Tuberculosis: Incidence and mortality



Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Tanzania to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 56 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 under-five mortality stood at 52 deaths per 1,000 live births and measles immunisation at 99 per cent. So the country has already met part of this goal.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Tanzania, the maternal mortality ratio should fall to 228 cases per 100,000 live births. In 2013 it had an adjusted maternal mortality ratio of 410 deaths per 100,000 live births (this figure was estimated at 460 deaths per 100,000 by UN agencies/World Bank in 2010). Although the maternal mortality rate is falling, Tanzania is unlikely to meet this target. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In 2010 this figure stood at 49 per cent, so achievement of this target is also looking unrealistic. A report by the United Nations Development Programme has suggested that Tanzania's slow progress towards MDG 5 is exacerbated by the impact of HIV and AIDS.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Tanzania has shown an encouraging reduction in HIV prevalence since 1996, although the current degree of prevalence is still higher than it was in 1990. The incidence of malaria declined significantly since 2006, from 1,928,296 confirmed cases down to just 40 in 2009. However, in 2012 there were 1,986,955 cases of malaria. The estimated incidence of and mortality (when mortality data excludes cases comorbid with HIV) from tuberculosis fell significantly in the period 1990–2012. The rate of improvement for the prevalence of this disease in Tanzania is promising, showing that it could possibly achieve MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Just under two-fifths of health care in Tanzania (39 per cent) was government funded in 2012. The remaining 61 per cent was paid for by patients or funded by other non-governmental entities, such as private insurers, charities or employers. Total health expenditure constituted seven per cent of GDP in 2012. Expenditure by government amounts to US\$16 per capita.

The WHO reported in 2010 that Tanzania's health status is continually improving, despite the challenges provided by AIDS, TB and various tropical diseases. However, fees are generally payable for health services, which puts even basic health care beyond the reach of some Tanzanians.

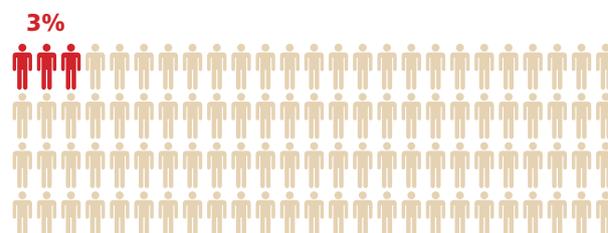
The National Health Insurance Fund, established in 1999, is funded by compulsory payments made by public servants and covers up to five dependents, but this only caters to five per cent of the population. There is also a small private insurance industry, mainly linked to private sector employers. An alternative type of health insurance for those working in the informal sector in rural areas, the Tanzanian Community Health Fund, was launched in 2001. The equivalent for urban areas is Tiba kwa Kadi. Only a small number of people pay into it, however.

The WHO Country Cooperation Strategy (2010–15) focuses on strengthening the capacity of health systems and services, as well as scaling up health service delivery.

Tanzania was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1976 and has written the covenant into law. It includes 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 1.5 million people in Tanzania are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person living in Tanzania can be expected to live for an additional 18 years, on average (2013). Overall, public pension spending is equivalent to 0.8 per cent of the country's total economic output (2008).

Population over 65



The over-60s can usually get free health care. Charities such as HelpAge International are active in Tanzania, educating older people about health concerns and establishing support groups. The Tanzania Development Trust has established several old people's homes for the most needy.

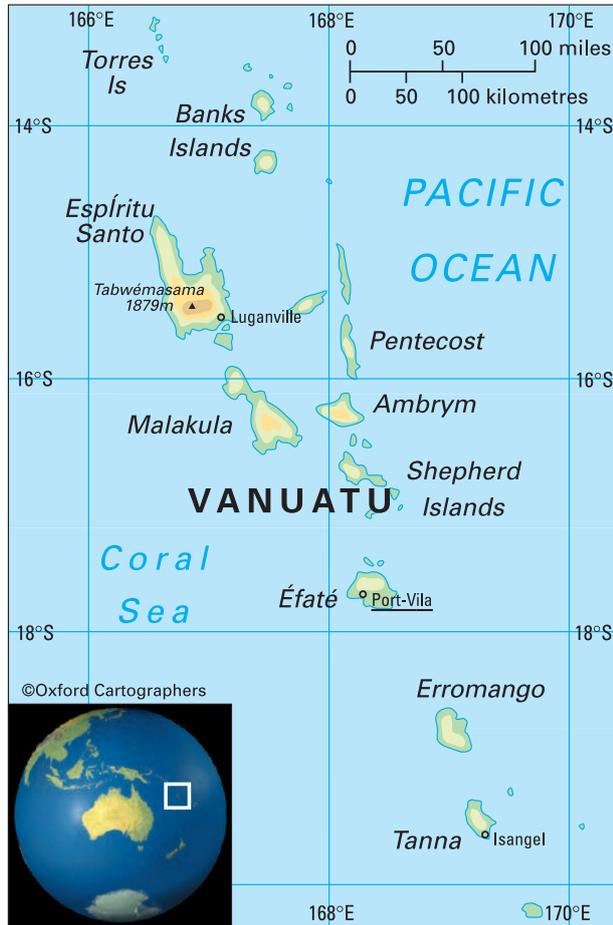
Further information

Ministry of Health and Social Welfare: www.moh.go.tz

Commonwealth Health Online: www.commonwealthhealth.org/health/africa/United_republic_of_tanzania



Vanuatu



KEY FACTS

Joined Commonwealth:	1980
Population:	253,000 (2013)
GDP p.c. growth:	1.97% p.a. 1990–2013
GNI p.c.:	US\$3,130 (2013)
UN HDI 2014:	World ranking 131
Life expectancy:	72 years (2013)
Under-five mortality rate (per 1,000 live births):	17 (2013)
Largest contribution to mortality:	Cardiovascular diseases
Government health expenditure:	3.1% of GDP (2013)

General information

The Republic of Vanuatu's land area is made up of a group of islands in the south-west Pacific, lying south of Solomon Islands and east of the state of Queensland in Australia. The country

comprises six provinces: Malampa, Penama, Sanma, Shefa, Tafea and Torba.

Climate: Oceanic tropical, with south-east trade winds in May–October. The period November–April is humid, with moderate rainfall. Cyclones may occur in November–April.

Environment: The most significant environmental issues are that the majority of people do not have access to a safe and reliable supply of water (although it is improving); and deforestation.

Population: 253,000 (2013); predominantly concentrated near the coast on the four main islands; 26 per cent of people live in urban areas – Éfaté has the fastest-growing population, as people migrate to the capital. The population growth rate stood at 2.4 per cent p.a. between the years of 1990–2013. In 2013 the birth rate was 27 per 1,000 people (43 in 1970) and life expectancy was 72 years (53 in 1970).

Most of the population is Melanesian, known as ni-Vanuatu (98.5 per cent in the 1999 census), the rest of mixed Micronesian, Polynesian and European descent.

Economy: Vanuatu is classified as a lower-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Vanuatu was 15 deaths per 1,000 live births in 2013. There has been an overall decline in the under-five mortality rate since 1990. In 2013 the under-five mortality rate was 17 per 1,000 live births, a slight improvement from 18 the year before. In 2012 the two most prominent causes of death for children below the age of five years were prematurity (23 per cent) and congenital anomalies (19 per cent). Other contributory causes were acute respiratory infections (11 per cent), intrapartum-related complications (ten per cent), diarrhoea (six per cent), neonatal sepsis (four per cent), injuries (four per cent) and malaria (two per cent). In 2013 Vanuatu had an adjusted maternal mortality ratio of 86 deaths per 100,000 live births (this figure was estimated at 110 deaths per 100,000 by UN agencies/World Bank in 2010).

Burden of disease: Non-communicable diseases (NCDs) in Vanuatu accounted for an estimated 71 per cent of all mortality in 2008. The most prevalent NCDs in Vanuatu are cardiovascular diseases, which accounted for 36 per cent of total deaths across all age groups in 2008. Cancer, non-communicable variants of respiratory diseases and diabetes contributed 12 per cent, six per cent and four per cent to total mortality, respectively (2008).

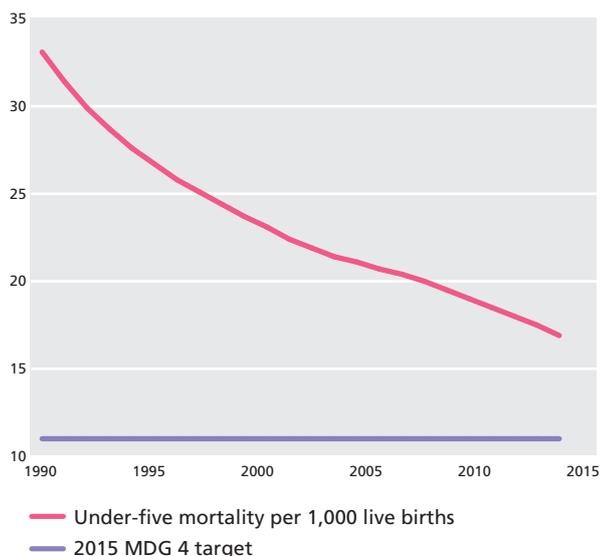
Communicable diseases along with maternal, perinatal and nutritional conditions in Vanuatu accounted for an estimated 24 per cent of all mortality in 2008. A government paper on HIV/AIDS reported that in 2011 there were four people living with HIV in Vanuatu. In 2012 there were 3,435 cases of malaria in the country.

The number of deaths from malaria fell by approximately 94 per cent in the period 2003–11. In the period 1990–2013 there were considerable fluctuations in estimated incidence of tuberculosis (TB), with the figure considerably lower in 2013 than it was in 1990; estimated mortality (when mortality data excludes cases comorbid with HIV) from TB dropped significantly from 13 deaths per 100,000 people in 2007 to 6.3 in 2013.

Diagnoses of mental illness in Vanuatu are often related to physical illnesses and the manner in which they can affect mental health. There is also evidence of common mental disorders, such as depression, personality disorder and anxiety, most of which have gone untreated in the past. A significant number of people have also been treated for ‘brief psychotic disorders’ commonly associated with religious experiences. Also present are mental health conditions relating to psychoactive substance misuse.

Health systems: In 2012 government expenditure on health was 3.1 per cent of GDP, equivalent to US\$100 per capita. In the most recent survey, conducted between 1997 and 2010, there were 12 doctors, and 170 nurses and midwives per 100,000 people.

Under-five mortality



Life expectancy

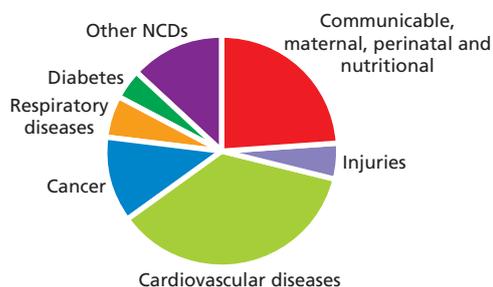


Additionally, in the period 2007–12, 74 per cent of births were attended by qualified health staff and in 2013, 52 per cent of one-year-olds were immunised with one dose of measles. In 2012, 91 per cent of people were using an improved drinking water source and 58 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Vanuatu has one pharmaceutical professional per 100,000 people.

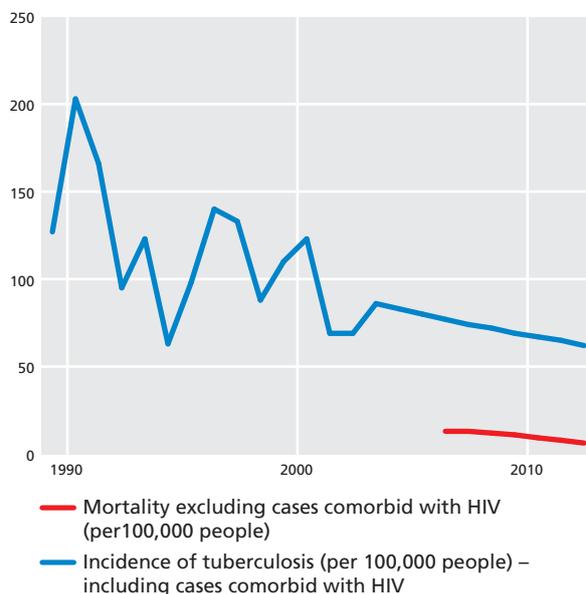
The Ministry of Health is responsible for the four provincial hospitals and two referral hospitals in Vanuatu; the two major referral hospitals are located in Port Vila (Central Hospital) and Luganville (Northern District Hospital). Port Vila’s Central Hospital suffered substantial damage in March 2015 when Cyclone Pam hit the islands. There are a number of health centres and clinics around the islands providing preventative medicine and inpatient, outpatient and primary care. There are around 100 active dispensaries.

The Ministry of Health heads the four tiers of public health facilities (hospitals, health centres, dispensaries and aid posts). Support from non-governmental organisations (NGOs) and community-based services supplement government-provided services. The private health sector in Vanuatu is a recent development and private health insurance is primarily utilised by expatriates, with services mainly available in towns.

Mortality by cause of death (% of all deaths), 2008



Tuberculosis: Incidence and mortality



With no local pharmaceutical industry, all pharmaceutical products are imported. There is no independent drug regulatory authority with a remit to monitor the importation of drugs. The Principal Pharmacist in the Ministry of Health is the most relevant contact in these matters. Vanuatu is working with the WHO to strengthen its pharmaceutical policies and improve access to essential medicines and vaccinations.

Mental health policy and a mental health plan were both most recently revised in 2009.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Vanuatu to achieve its targets for the reduction of child mortality, which form MDG 4, it should have reduced under-five deaths per 1,000 live births to 11 and increased measles immunisation to 100 per cent when the 2015 data is analysed. In 2013 the under-five mortality rate was 17 per 1,000 live births, a slight improvement from 18 the year before. Measles immunisation currently stands at 52 per cent (2013); the 100 per cent target is hard to reach as many children live in remote, difficult-to-reach areas.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. For Vanuatu, the maternal mortality ratio should fall to 43 deaths per 100,000 live births. In the period 2007–11 Vanuatu had an adjusted maternal ratio of 86 deaths per 100,000 live births (this figure was estimated at 110 by UN agencies/World Bank in 2010). Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In the period 2007–12 this figure stood at 74 per cent. Consequently, Vanuatu is unlikely to meet this goal. In the hope of improving the country's chances of meeting MDG 5, the Ministry of Health has taken steps to identify those women most at risk of maternal mortality, namely very young mothers (less than 15 years of age), older mothers (over 39 years) and those who have had more than four children.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. The number of deaths from malaria fell considerably in the period 2003–11. Although estimated incidence of TB has fallen in the period 1990–2010, the estimated mortality rate (when mortality data excludes cases comorbid with HIV) has remained roughly the same. The country is unlikely to meet MDG 6.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

Less than an eighth of health care in Vanuatu (13 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total

health expenditure constituted 3.6 per cent of GDP in 2012, of which 87 per cent (US\$100 per capita) was covered by the government.

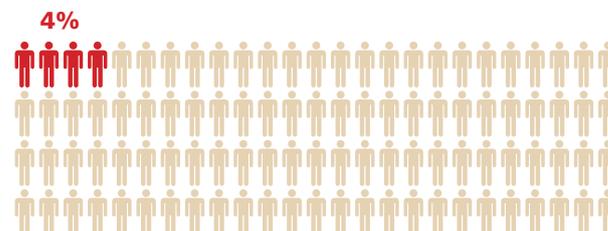
One of the strategic priorities in Vanuatu's World Health Organization Country Co-operation Strategic Agenda (2013–17) is for the country to improve access to services by rolling out primary health care interventions in all provinces and building a more responsive health system that addresses human resources, good management practices, medicines and technology.

In early 2014 the government endorsed a national health reform plan that aims to improve health services at all levels of delivery. This is to be implemented through improved management of health provinces, improving access to essential health services from hospitals to community-based health facilities. The progress of implementation has been slow, however, as the government does not have the financial capacity for risk pooling to provide adequate health insurance cover based on needs and equity.

Vanuatu is not a signatory to the International Covenant on Economic, Social and Cultural Rights, the covenant that commits signees to the ensuring 'the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.

Care of the elderly: Around 10,000 people in Vanuatu are over the age of 65 – four per cent of the total population (2013). At the age of 60 a person living in Vanuatu can be expected to live for an additional 18 years, on average (2013). Overall, public pension spending is equivalent to 0.3 per cent of the country's total economic output (2005).

Population over 65



A UNDP report on hardship and poverty in Vanuatu found that men and women aged over 60 are more likely to be economically vulnerable in urban areas than in rural areas. This is mostly likely because people in rural areas tend to live in extended family groups, where older family members will be supported and cared for by younger generations.

Further information

Ministry of Health: www.governmentofvanuatu.gov.vu

Commonwealth Health Online:

www.commonwealthhealth.org/health/pacific/vanuatu



Zambia



KEY FACTS

Joined Commonwealth:	1964
Population:	14,539,000 (2013)
GDP p.c. growth:	2.0% p.a. 1990–2013
GNI p.c.:	US\$1,480 (2013)
UN HDI 2014:	World ranking 141
Life expectancy:	58 years (2013)
Under-five mortality rate (per 1,000 live births):	87 (2013)
Largest contribution to mortality:	HIV/AIDS
Government health expenditure:	4.2% of GDP (2012)

General information

Zambia is a landlocked, fertile and mineral-rich country on the Southern African plateau. It is bordered by: (clockwise from the north) the United Republic of Tanzania, Malawi, Mozambique, Zimbabwe, Botswana, Namibia (via the Caprivi Strip), Angola and the Democratic Republic of Congo.

The country comprises ten provinces (from south to north): Southern, Western, Lusaka, Central, Eastern, North-Western, Copperbelt, Northern, Muchinga (whose creation was announced in October 2011) and Luapula.

Climate: Tropical, but seldom unpleasantly hot, except in the valleys. There are three seasons: a cool dry season April–August; a hot dry season August–November; and a wet season, which is even

hotter, November–April. Frost occurs in some areas in the cool season. Rainfall is 508–1,270 mm p.a.

Environment: The most significant environmental issues are deforestation, soil erosion and desertification; health risk posed by inadequate water treatment facilities; threats to big game populations by poaching; and air pollution and resulting acid rain in the areas surrounding mining and refining operations in Copperbelt Province.

Population: 14,539,000 (2013); 40 per cent of people live in urban areas and 14 per cent in urban agglomerations of more than a million people. The population growth rate stood at 2.7 per cent p.a. between the years of 1990 and 2013. In 2013 the birth rate was 43 per 1,000 people (49 in 1970) and life expectancy was 58 years. Life expectancy fell in the late 1980s, due to AIDS, but began to rise again in the early 2000s.

There are 73 indigenous ethnic groups of Bantu origin. The largest, representing about 18 per cent of the population, is the Bemba of the north-east and Copperbelt. Others include the Tonga of Southern Province, the Nyanja of Eastern Province and Lusaka, and the Lozi of the west. There are small minorities of Europeans and Asians.

Economy: Zambia is classified as a lower-middle-income economy by the World Bank.

Health

Child and maternal health: Infant mortality in Zambia was 56 deaths per 1,000 in 2013, with an under-five mortality rate of 87 deaths per 1,000 live births in 2013. There has been a decline in the under-five mortality rate since 1990. In 2012 the most prominent known causes of death for children below the age of five years were malaria (16 per cent), acute respiratory infections (15 per cent), intrapartum-related complications (12 per cent) and prematurity (11 per cent). Other contributory causes were neonatal sepsis (six per cent) and congenital anomalies (four per cent). In 2013 Zambia had an adjusted maternal mortality ratio of 280 deaths per 100,000 live births (this figure was estimated at 440 by UN agencies/World Bank in 2010).

Burden of disease: Communicable diseases along with maternal, neonatal and nutritional conditions in Zambia accounted for an estimated 67 per cent of all mortality in 2012. The prevalence of HIV in Zambia, as a percentage of people aged 15–49 years, stood at 12.5 per cent in 2012. There has been a gradual and continuous decline in the prevalence of HIV since 1993. There were 2,976,395 reported cases of malaria in 2009. The number of deaths from malaria fell by around a third in the decade 2001–11, with a further drop between 2011 and 2012. In the period 1996–2012 there was a reduction of more than a third in the estimated incidence of tuberculosis (TB). Estimated mortality (when mortality data excludes cases comorbid with HIV) from the disease showed a

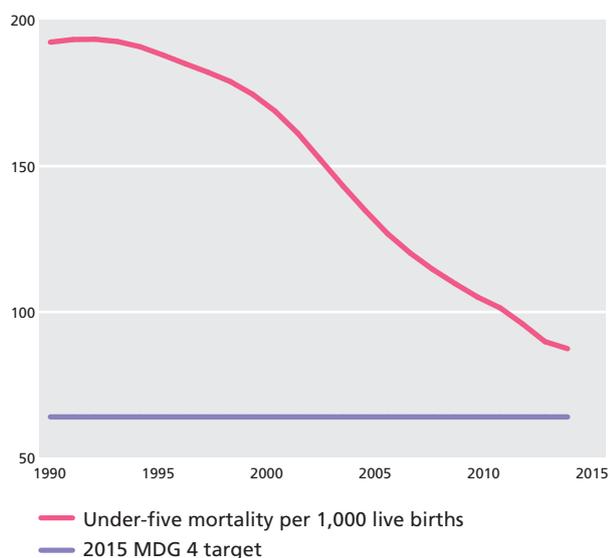
decline in the period 1990–2012, more than halving over this time, but has risen slightly since.

Non-communicable diseases (NCDs) in Zambia accounted for an estimated 22 per cent of all mortality in 2012. The most prevalent NCDs in Zambia are cardiovascular diseases, which accounted for eight per cent of total deaths across all age groups in 2008.

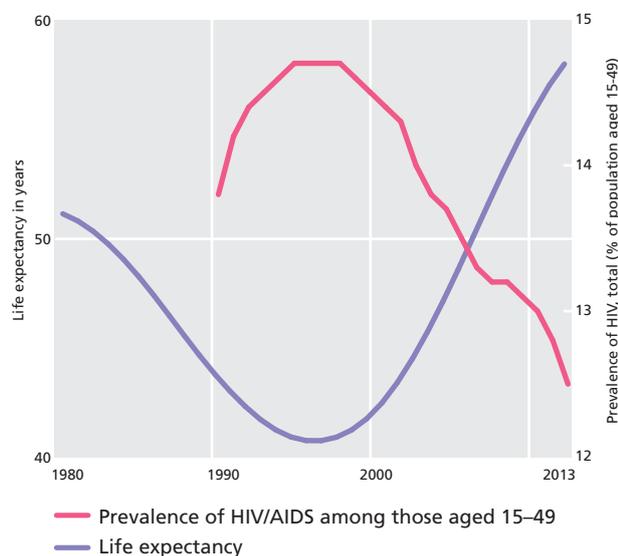
Cancer, non-communicable variants of respiratory diseases and diabetes contributed four per cent, one per cent and one per cent to total mortality, respectively (2012). Injuries accounted for 11 per cent of deaths in 2012.

The most commonly diagnosed mental illness in Zambia is depression, alongside other neuropsychiatric disorders, such as those relating to drug and alcohol abuse. The risk of mortality is significantly increased by the stigma attached to mental illness, the prevalence of HIV, high unemployment and socio-economic difficulties, with more than 68 per cent of individuals living on less than US\$1 a day in 2010.

Under-five mortality



Life expectancy and HIV/AIDS

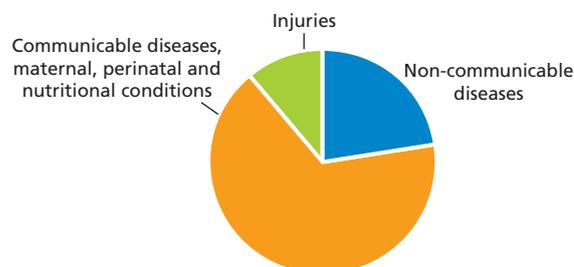


Health systems: Zambia’s public spending on health was 4.2 per cent of GDP in 2012, equivalent to US\$62 per capita. In the most recent survey, conducted in 2010, there were seven doctors, and 78 nurses and midwives per 100,000 people. Additionally, in the period 2007–12, 47 per cent of births were attended by qualified health staff and in 2013, 80 per cent of one-year-olds were immunised with one dose of measles. In 2012, 63 per cent of people were using an improved drinking water source and 43 per cent had access to adequate sanitation facilities. The most recent survey, conducted in the period 2000–11, reports that Zambia has 13 pharmaceutical personnel per 100,000 people.

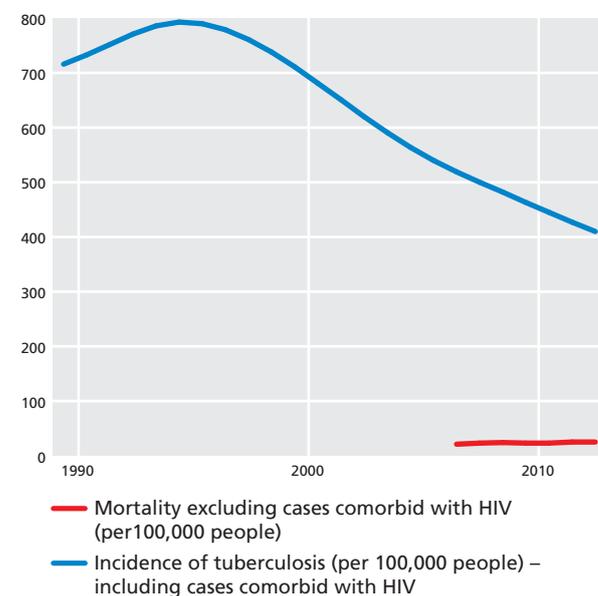
Zambia’s five main referral hospitals are the Arthur Davison Children’s Hospital (Ndola), Chainama Hills College Hospital (Lusaka), Kitwe Central, Ndola Central and the University Teaching Hospital (Lusaka). There are provincial and district hospitals and health centres throughout the country. Health providers other than the government include faith organisations and health care companies. There are four main manufacturers of pharmaceutical products, all based in Lusaka. Products include tablets, painkillers, syrups and some antibiotics. About 85–90 per cent of pharmaceuticals are imported.

In 1995 a new Mental Health Services Act was passed to replace the Mental Disorders Act 1951. However, this was repealed in 2005 to pave the way for the dissolution of the Central Board of

Mortality by cause of death (% of all deaths), 2012



Tuberculosis: Incidence and mortality



Health. As a result, there is no approved mental health act currently in place.

Health MDGs: The Millennium Development Goals (MDGs) mature in 2015, but monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country.

For Zambia to achieve its targets for the reduction of child mortality, which forms MDG 4, it will need to have reduced under-five deaths per 1,000 live births to 64 and increase measles immunisation to 100 per cent by 2015. In 2013 under-five mortality stood at 87 deaths per 1,000 live births, a notable decrease from 95 in 2011, and measles immunisation had slipped from 91 per cent in 2010 to 80 per cent in 2013. It's unlikely that Zambia will meet its targets for MDG4, particularly that on measles immunisation, as the number of immunised one-year-olds fell again between 2011 (83 per cent) and 2013.

The global MDG 5 target for maternal health is to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. In Zambia, maternal mortality should fall to 145 cases per 100,000 live births. In 2013 Zambia had an adjusted maternal mortality ratio of 280 deaths per 100,000 live births (this figure was estimated at 440 by UN agencies/World Bank in 2010). Based on the data reported by the country, this target is unlikely to be achieved. Part of the goal also stipulates that 100 per cent of births must be attended by a skilled health professional. In the period 2007–12 this figure stood at 47 per cent, so achievement of this target is also looking unrealistic.

MDG 6 aims for a reduction in the prevalence of HIV, malaria and other diseases. Although there has been a slight reduction in the prevalence of HIV in the period 2011–12, the percentage of the population infected with the disease remains very high, with more than one in ten 15–49-year-olds infected. The number of deaths from malaria has decreased from 4,540 in 2011 to 3,705 in 2012. Mortality (when data excludes cases comorbid with HIV) from TB more than halved in the period 1990–2012, but has risen slightly since then. Consequently, Zambia is unlikely to meet its targets for MDG 6. However, since 2000 the number of new infections of HIV in children has reduced dramatically, with new infections in infants dropping from 27,978 in 2000 to 9,726 in 2011, and from 5,520 in 2009 to 2,946 in 2011, among children between one and four years old.

For definitions, sources and explanations on the Millennium Development Goals see page 314.

Universal health coverage

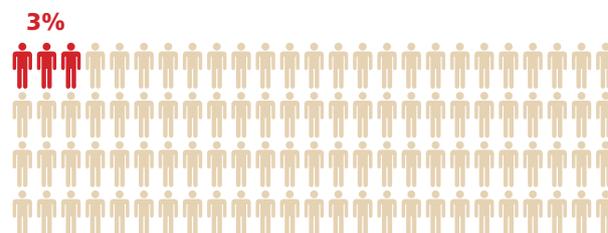
Only a third of health care in Zambia (34 per cent) was paid for by patients or funded by other non-governmental entities – such as private insurers, charities or employers – in 2012. Total health expenditure constituted 6.5 per cent of GDP in 2012, of which 64 per cent (US\$62 per capita) was covered by the government.

The WHO Country Specific Strategic Agenda has identified a need for Zambia to provide support to health care financing to facilitate equitable access to health care. The agenda also points to the need for strengthening health systems, budgeting and accountability. It is also recommended that the potential of public–private partnerships is investigated to harness the resources of the private sector to improve health care coverage.

Zambia was not an original signatory to the International Covenant on Economic, Social and Cultural Rights, but acceded to it in 1984 and has written the covenant into law. It includes ‘the right of everyone to the enjoyment of the highest attainable standard of physical and mental health’. The covenant commits signees to providing healthy and hygienic environmental conditions, controlling epidemic diseases, improving child health and facilitating access to health services without discrimination.

Care of the elderly: Around 381,363 people in Zambia are over the age of 65 – three per cent of the total population (2013). At the age of 60 a person in Zambia can be expected to live for an additional 17 years, on average (2013). The Zambian Social Cash Transfer Programme of pension payments dates back to 2007. Monthly social security benefits are paid by the state at a rate of US\$12 per person (2007–12) on a universal basis, regionally. Overall, public pension spending is equivalent to 1.4 per cent of the country's total economic output (2009). Retirement age has recently been raised to 65.

Population over 65



The HIV/AIDS epidemic has left some elderly people struggling financially, as they are caring for grandchildren who have lost their parents. AIDS has also seen rising numbers of old people's homes in Zambia, usually run by charities, not-for-profit organisations or the government, as many elderly people are outliving their children who, traditionally, would have cared for them.

Further information

Ministry of Health: www.moh.gov.zm

Commonwealth Health Online:
www.commonwealthhealth.org/health/africa/zambia

Reference



The Commonwealth

Key indicators on the Millennium Development Goals

Health

	Infant (under-one) mortality	Under-five mortality	One-year-olds immunised with one dose of measles	Maternal mortality ratio	Proportion of births attended by qualified health staff	HIV/AIDS prevalence among those aged 15–49
	(per 1,000 live births) 2013	(per 1,000 live births) 2013	(%) 2013	(per 100,000 live births) 2010	(%) 2009–13	(%) 2013
Antigua and Barbuda	7.7	9.3	98		99	
Australia	3.4	4	94	6	99	0.2
The Bahamas	10.4	12.9	92	37	99	3.2
Bangladesh	33.2	41.1	93	170	31	<0.1
Barbados	13.3	14.4	90	52	100	0.9
Belize	14.3	16.7	99	45	95	1.5
Botswana	36.3	46.6	94	170	99	21.9
Brunei Darussalam	8.4	9.9	99	27	100	
Cameroon	60.8	94.5	83	590	64	4.3
Canada	4.6	5.2	95	11	98	
Cyprus	2.8	3.6	86	10	97	<0.1
Dominica	10.2	11.4	93		100	
Fiji	20	23.6	94	59	100	0.1
Ghana	52.3	78.4	89	380	67	1.3
Grenada	10.7	11.8	94	23	100	
Guyana	29.9	36.6	99	250	87	1.4
India	41.4	52.7	74	190	67	0.3
Jamaica	14.3	16.6	94	80	96	1.8
Kenya	47.5	70.7	93	400	44	6
Kiribati	45.1	58.2	91	130	98	
Lesotho	73	98	92	490	62	22.9
Malawi	44.2	67.9	88	510	71	10.3
Malaysia	7.2	8.5	95	29	99	0.4
Maldives	8.4	9.9	99	31	99	<0.1
Malta	5.3	6.1	99	9	100	
Mauritius	12.5	14.3	99	73	100	1.1
Mozambique	61.5	87.2	85	480	54	10.8
Namibia	35.2	49.8	82	130		14.3
Nauru						
New Zealand	5.2	6.3	92	8	96	
Nigeria	74.3	117.4	59	560	38	3.2
Pakistan	69	85.5	61	170	52	<0.1
Papua New Guinea	47.3	61.4	70	220	43	0.7
Rwanda	37.1	52	97	320	69	2.9
St Kitts and Nevis	7.8	10.2	99		100	
Saint Lucia	12.7	14.5	99	34	99	
St Vincent and the Grenadines	17.2	19	99	45	99	
Samoa	15.5	18.1	99	58	81	
Seychelles	12.2	14.2	97		99	
Sierra Leone	107.2	160.6	83	1100	61	1.6
Singapore	2.2	2.8	95	6	100	
Solomon Islands	25.1	30.1	76	130		
South Africa	32.8	43.9	66	140		19.1
Sri Lanka	8.2	9.6	99	29		<0.1
Swaziland	55.9	80	85	310	82	27.4
Tonga	10.4	12.1	99	120	99	
Trinidad and Tobago	19	21.3	91	84	100	1.7
Tuvalu	24.4	29.2	96			
Uganda	43.8	66.1	82	360	58	7.4
United Kingdom	3.9	4.6	95	8		0.3
United Republic of Tanzania	36.4	51.8	99	410	49	5
Vanuatu	14.6	16.9	52	86		
Zambia	55.8	87.4	80	280		12.5

Key indicators on the Millennium Development Goals

General

	Total population	GNI per capita	GDP per capita growth	Net primary enrolment ratio	Adult literacy rate	Life expectancy	Human Development Index ranking out of 186 countries
	(thousands) 2012	(US\$) 2012	(% p.a.) 1990-2012	(%) 2005-12	(%) 2008-12	(years) 2012	2012
Antigua and Barbuda	90	12910	0.746369025	85	99	76	61
Australia	23343	65520	1.77075168	97		82	2
The Bahamas	377	22,312*	-0.330327087	98		75	51
Bangladesh	156595	900	3.69470985	92	59	71	142
Barbados	285	15,172*	0.946339987	97		75	59
Belize	332	4660	2.037197658	96		74	84
Botswana	2021	7730	2.791316454	84	87	48	109
Brunei Darussalam	418	38,563*	-0.450465566	92	95	79	30
Cameroon	22254	1270	-0.04574226	92	71	55	152
Canada	35182	52200	1.301326767			81	8
Cyprus	1141	25210	0.918510313	98	99	80	32
Dominica	72	6760	1.787612957	92			93
Fiji	881	4430	1.206357376	97		70	88
Ghana	25905	1760	3.15438489	87	71	61	138
Grenada	106	7460	1.793670598	87		73	79
Guyana	800	3750	2.971785526	72	85	66	121
India	1252140	1570	4.722522628	93	63	66	135
Jamaica	2784	5220			87	74	96
Kenya	44354	930	0.566460015	82	72	62	147
Kiribati	102	2620	0.92583975			69	133
Lesotho	2074	1550	2.849162699	82	76	49	162
Malawi	16363	270	1.465097435	97	61	55	174
Malaysia	29717	10400	3.535407761		93	75	62
Maldives	345	5600		94	98	78	103
Malta	429	20980	2.429756886	95	92	80	39
Mauritius	1244	9300	3.485523831	98	89	74	63
Mozambique	25834	590	3.722243318	86	51	50	178
Namibia	2303	5840	2.127177677	88	76	64	127
Nauru	10	10,277**		76			
New Zealand	4506	41,556*	1.475468451	98		81	7
Nigeria	173615	2710	2.562178797	64	51	53	152
Pakistan	182143	1380	1.790858455	72	55	67	146
Papua New Guinea	7321	2010	1.854633113	86	63	62	157
Rwanda	11777	620	2.246577966	99	66	64	151
St Kitts and Nevis	54	13460	1.636006998	81			73
Saint Lucia	182	7090	1.052524507	82		75	97
St Vincent and the Grenadines	109	6580	2.526431151	95		72	91
Samoa	190	3430	1.856731276	95	99	73	106
Seychelles	93	12530	2.323712004	94	92	73	71
Sierra Leone	6092	680	0.498827661		44	46	183
Singapore	5412	54040	3.546460922		96	82	9
Solomon Islands	561	1610	0.522766106	81		68	157
South Africa	52776	7190	0.862927019	85	94	57	118
Sri Lanka	21273	3170	4.614532321	94	91	74	73
Swaziland	1250	3080	0.81275406	85	83	49	148
Tonga	105	4490	1.587610094	90	99	73	100
Trinidad and Tobago	1341	15760	3.464437403	95	99	70	64
Tuvalu	10	6630	1.746413538				
Uganda	37579	510	3.284179657	91	73	59	164
United Kingdom	63136	39140	1.466948196	100		81	14
United Republic of Tanzania	49253	630	2.251977497	98	68	62	159
Vanuatu	253	3130	0.553698719	99	83	72	131
Zambia	14539	1480	2.005353398	94	61	58	141

* GDP per capita (2011)

** GDP per capita (2012)

Data reproduced with permission from: Unicef, The State of the World's Children Report 2014, Unicef, New York, 2014

Health systems

	Government expenditure on health (% of GDP)	Government expenditure on health (US\$ per capita)	Medical doctors (per 100,000 population)	Nurses and midwives (per 100,000 population)	Pharmaceutical personnel (per 100,000 population)	Access to an improved water source (% of population)	Access to adequate sanitation facilities (% of population)
	2012	2012	2010–12		2007–11	2012	2012
Antigua and Barbuda	3.9	514				98	
Australia	6.1	4,108	327	1065	155.5	100	100
The Bahamas	3.5	759			47.6	98	92
Bangladesh	1.2	9	36	22	6.4	85	57
Barbados	4.1	615	181	486		100	
Belize	3.8	168	83	196	38.5	99	91
Botswana	3.0	217	34	284		97	64
Brunei Darussalam	2.1	862	150	773	10.4		
Cameroon	1.7	20			<1	74	45
Canada	7.7	4,022	207	929	76	100	100
Cyprus	3.2	841	229	446	20.5	100	100
Dominica	4.2	282					
Fiji	2.6	115	43	224	9	96	87
Ghana	3.0	47	10	93	7.1	87	14
Grenada	3.0	223			84.9	97	98
Guyana	4.3	155	21	53	11.6	98	84
India	1.3	20	70	171	51.6	93	36
Jamaica	3.3	175			6.4	93	80
Kenya	1.8	17	18	79	15.6	62	30
Kiribati	8.9	154	38	371	21	67	40
Lesotho	9.1	108				81	30
Malawi	7.0	19	2	28	1.6	85	10
Malaysia	2.2	230	120	328	43	100	96
Maldives	3.9	253	142	504	82.4	99	99
Malta	6.0	1,204	350	709	80.2	100	100
Mauritius	2.4	217				100	91
Mozambique	2.8	17	4	41	4	49	21
Namibia	5.1	292	37	278	18.1	92	32
Nauru		491			50	96	66
New Zealand	8.5	2,723	274	1087	100.6	100	
Nigeria	1.9	29	40	161	10.5	64	28
Pakistan	1.0	12	83	57		91	48
Papua New Guinea	4.3	94	5	46		40	19
Rwanda	6.1	38	6	69	0.6	71	64
St Kitts and Nevis	2.3	324				98	
Saint Lucia	4.7	307				94	
St Vincent and the Grenadines	4.3	279				95	
Samoa	6.0	217	48	185	31	99	92
Seychelles	4.3	486				96	97
Sierra Leone	2.5	16	2	17	1.9	60	13
Singapore	1.7	912	192	639	38.8	100	100
Solomon Islands	7.7	142	22	205	10	81	29
South Africa	4.2	309	76	490	36.9	95	74
Sri Lanka	1.3	35	68	164	4.2	94	92
Swaziland	6.3	192			5	74	57
Tonga	4.5	200	56	388	15	99	91
Trinidad and Tobago	2.7	490	118	356	48.8		92
Tuvalu	15.4	577	109	582	18.18	98	83
Uganda	1.9	10	12	131		75	34
United Kingdom	7.8	3,009	279	883	67.2	100	100
United Republic of Tanzania	2.8	16	1	24	<1	53	12
Vanuatu	3.1	100	12	170	0.9	91	58
Zambia	4.2	62	7	78	13	63	43

Over 60s

	Population over 65 % of total population 2013	Life expectancy for persons aged 60 years 2013	Public spending on pensions % 2004–13	Monthly social security benefit* US\$ 2007–12	Eligibility/ coverage* 2007–12	Name of social security system*	Year scheme was introduced*
Antigua and Barbuda	7.1	21	2.5	94	Means-tested	Old Age Assistance Programme	1993
Australia	14.3	25	3.5	1,427	Means-tested	Age Pension	1900
The Bahamas	7.7	22					
Bangladesh	4.8	18		4	Means-tested	Old Age Allowance	1998
Barbados	10.9	20		299	Means-tested	Non-contributory Old Age Pension	1937
Belize	4.0	21	0.15	51	Means-tested	Non-Contributory Pension Programme (NCP)	2003
Botswana	3.6	16	1.3	26	Universal	State Old Age Pension	1996
Brunei Darussalam	4.3	21		201	Universal	Old Age Pension	1984
Cameroon	3.2	16	0.4				
Canada	15.2	24	4.5	522	Universal	Pension de la Securite Vieillesse	1927
Cyprus	12.3	22		451	Pensions-tested	Social Pension	1995
Dominica			4				
Fiji	5.4	17	0.5	16	Pensions-tested	Social Pension Scheme	2013
Ghana	3.5	15	1.3				
Grenada	7.1	18	2				
Guyana	3.4	17	0.1	65	Universal	Old Age Pension	1944
India	5.3	17	1	3	Means-tested	Indira Gandhi National Old Age Pension Scheme	1995
Jamaica	7.9	21	0.12	9	Means-tested	Programme for Advancement	2001
Kenya	2.7	18	1.34	23	Means-tested	Older Persons Cash Transfer	2006
Kiribati	4.1	17		47	Universal	Elderly Fund	2003
Lesotho	4.2	15		4	Pensions-tested	Old Age Pension	2004
Malawi	3.2	17	1.35				
Malaysia	5.4	19	3.75	94	Means-tested	Bantuan Orang Tua (Elderly Assistance Scheme)	1982
Maldives	4.9	21	0.2	130	Pensions-tested	Old-Age Basic Pension	2010
Malta	16.3	22	9	586	Means-tested	Age Pension	1956
Mauritius	8.7	19	6.7	118	Universal	Basic Retirement Pension	1950
Mozambique	3.3	17	1.84	8	Means-tested	Programa de Subsidio Social Basico	1992
Namibia	3.5	17	1.3	60	Universal	Old Age Pension	1949
Nauru							
New Zealand	14.0	24	4.7	1,263	Universal	Superannuation	1898
Nigeria	2.7	14	0.91	32	Regional	Ekiti State Social Security Scheme	2011
Pakistan	4.4	17	0.5				
Papua New Guinea	2.9	15	0.2	14	Regional	Old Age and Disabled Pension Scheme	2009
Rwanda	2.4	18	0.7				
St Kitts and Nevis		2.7					
Saint Lucia	8.8	21	1.7				
St Vincent and the Grenadines	7.0	20	1.5				
Samoa	5.1	19		59	Universal	Senior Citizens Benefit	1990
Seychelles	7.7	19	2.9			Old-Age Pension (social security fund)	1979
Sierra Leone	2.7	13	0.47				
Singapore	10.2	24					
Solomon Islands	3.4	17					
South Africa	5.5	16	2.2	125	Means-tested	Older Persons Grant	1927/8
Sri Lanka	8.5	20	2				
Swaziland	3.5	16		20	Pensions-tested	Old Age Grant	2005
Tonga	5.9	19	0.9				
Trinidad and Tobago	9.0	18	4.35	468	Means-tested	Senior Citizens' Pension	1939
Tuvalu							
Uganda	2.4	17	0.4	9	Regional	Senior Citizens Grant (Pilot in 14 districts)	2011
United Kingdom	17.5	24	5	949	Means-tested	Pension credit (Guarantee Credit)	1909
United Republic of Tanzania	3.2	18	0.76				
Vanuatu	3.9	18	0.3				
Zambia	2.6	17	1.4	12	Regional	Social Cash Transfer Programme, Katete (Pilot)	2007

*Source: <http://www.helpage.org>

Mortality by cause of death among children aged under five years

	<i>HIV</i>	<i>Diarrhoea</i>	<i>Measles</i>	<i>Malaria</i>	<i>Acute respiratory infections</i>	<i>Prematurity</i>	<i>Intrapartum-related complications</i>	<i>Neonatal sepsis</i>	<i>Congenital anomalies</i>	<i>Other diseases</i>	<i>Injuries</i>
	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012
Antigua and Barbuda											
Australia	0	0	0	0	3	21	11	1	28	29	7
The Bahamas	0	0	0	0	32	13	7	6	12	24	7
Bangladesh	0	6	2	0	13	20	14	11	9	18	7
Barbados	0	0	0	0	10	14	14	2	26	33	2
Belize	0	3	0	0	5	14	10	6	12	42	8
Botswana	5	7	1	0	13	24	14	8	9	14	5
Brunei Darussalam	0	1	0	0	4	25	8	2	28	23	10
Cameroon	3	12	1	12	17	11	11	6	5	18	6
Canada	0	0	0	0	2	30	10	3	27	22	5
Cyprus	0	0	0	0	3	22	8	3	37	21	6
Dominica											
Fiji	0	4	0	0	13	19	7	5	20	20	12
Ghana	1	7	1	19	13	14	13	8	7	13	5
Grenada	0	0	0	0	1	15	15	7	17	42	3
Guyana	1	5	0	9	5	19	12	6	9	28	6
India	0	11	2	0	14	27	11	8	6	16	4
Jamaica	1	2	0	0	8	25	9	7	23	17	7
Kenya	4	10	0	4	18	13	14	7	6	18	7
Kiribati	0	11	0	0	19	14	12	6	9	21	8
Lesotho	19	7	1	0	12	16	14	8	4	13	4
Malawi	12	8	1	15	13	12	11	7	5	13	5
Malaysia	1	2	0	0	7	24	9	3	26	21	7
Maldives	0	2	0	0	8	24	8	4	30	19	5
Malta	0	0	0	0	0	27	5	2	45	19	1
Mauritius	0	1	0	0	10	27	5	7	29	13	7
Mozambique	6	9	0	18	14	12	11	6	4	14	5
Namibia	9	6	3	0	13	20	13	7	10	13	6
Nauru											
New Zealand	0	2	0	0	5	25	8	2	22	18	17
Nigeria	3	10	1	20	16	12	11	5	3	16	4
Pakistan	0	11	1	0	17	19	13	10	5	18	7
Papua New Guinea	1	9	1	11	17	13	13	7	5	17	7
Rwanda	1	10	1	4	18	12	13	7	7	18	8
St Kitts and Nevis											
Saint Lucia	0	0	0	0	18	0	0	0	32	46	5
St Vincent and the Grenadines	1	0	0	0	2	37	12	2	11	29	6
Samoa	0	4	0	0	11	20	7	4	24	23	7
Seychelles											
Sierra Leone	0	14	6	14	17	9	9	5	4	18	4
Singapore	0	1	0	0	8	26	7	1	25	25	6
Solomon Islands	0	8	0	2	17	14	13	7	12	18	9
South Africa	17	7	1	0	16	14	10	4	6	18	7
Sri Lanka	0	2	0	0	6	25	9	4	29	20	4
Swaziland	15	9	0	0	15	14	12	7	6	16	6
Tonga	0	2	0	0	9	24	8	5	26	17	8
Trinidad and Tobago	1	0	0	0	8	28	9	4	26	17	7
Tuvalu											
Uganda	7	9	0	13	15	12	11	6	5	16	6
United Kingdom	0	0	0	0	4	40	7	1	27	19	3
United Republic of Tanzania	6	8	0	10	15	11	14	8	7	15	6
Vanuatu	0	6	0	2	11	23	10	4	19	21	4
Zambia	6	9	1	16	15	11	12	6	4	15	5

Mortality by cause of death among all age groups

	<i>Infectious and parasitic diseases</i>	<i>Respiratory infections</i>	<i>Maternal and neonatal conditions</i>	<i>Nutritional deficiencies</i>	<i>Cardiovascular diseases</i>	<i>Cancer</i>	<i>Respiratory diseases</i>	<i>Diabetes mellitus</i>	<i>Other NCDs</i>
	2012	2012	2012	2012	2012	2012	2012	2012	2012
Antigua and Barbuda									
Australia	1	2	0	0	31	29	7	3	21
The Bahamas	14	4	2	0	33	17	1	7	14
Bangladesh	15	8	8	2	17	10	11	3	18
Barbados	4	5	1	1	28	29	2	9	16
Belize	9	5	4	1	25	11	4	9	16
Botswana	42	4	8	0	18	5	2	3	8
Brunei Darussalam	4	4	2	0	34	17	7	11	12
Cameroon	35	12	11	3	11	3	2	2	13
Canada	2	2	0	0	27	30	7	3	22
Cyprus	2	2	0	0	39	24	6	7	16
Dominica									
Fiji	5	4	3	1	35	11	5	16	13
Ghana	25	11	11	4	18	5	2	2	14
Grenada									
Guyana	8	3	5	2	33	10	1	9	14
India	15	5	8	0	26	7	13	2	12
Jamaica	8	3	2	1	37	17	3	11	11
Kenya	36	12	12	4	9	7	1	2	9
Kiribati									
Lesotho	48	6	9	1	12	3	4	3	6
Malawi	43	9	11	2	12	5	2	1	8
Malaysia	7	8	1	0	36	15	6	3	12
Maldives	4	4	3	1	39	12	10	2	18
Malta	1	4	0	0	39	31	4	2	16
Mauritius	3	3	1	1	31	12	5	26	12
Mozambique	47	8	9	2	7	4	2	1	10
Namibia	33	6	7	0	21	5	4	4	9
Nauru									
New Zealand	2	2	1	0	32	29	7	3	18
Nigeria	35	14	13	3	7	3	1	2	11
Pakistan	16	8	14	1	19	8	6	3	15
Papua New Guinea	21	16	9	2	8	9	6	6	13
Rwanda									
St Kitts and Nevis									
Saint Lucia									
St Vincent and the Grenadines									
Samoa									
Seychelles									
Sierra Leone	36	12	12	7	9	2	2	2	12
Singapore	2	17	0	0	31	30	3	1	11
Solomon Islands	12	8	7	2	19	10	6	8	16
South Africa	41	4	3	0	18	7	3	6	10
Sri Lanka	4	5	1	1	40	10	8	7	10
Swaziland	48	7	8	0	10	3	3	3	8
Tonga									
Trinidad and Tobago	4	2	2	1	32	16	3	15	15
Tuvalu									
Uganda	38	10	10	2	9	5	2	1	10
United Kingdom									
United Republic of Tanzania	37	9	10	2	9	5	1	2	13
Vanuatu									
Zambia	45	8	11	3	8	4	1	1	8

Human and economic development

Highest income per capita

	<i>GNI per capita</i> 2013	<i>World Bank classification</i>
Australia	65,520	High-income economy
Singapore	54,040	High-income economy
Canada	52,200	High-income economy
New Zealand	41,556*	High-income economy
United Kingdom	39,140	High-income economy
Brunei Darussalam	38,563*	High-income economy
Cyprus	25,210	High-income economy
The Bahamas	22,312*	High-income economy
Malta	20,980	High-income economy
Trinidad and Tobago	15,760	High-income economy
Barbados	15,172*	High-income economy
St Kitts and Nevis	13,460	High-income economy
Antigua and Barbuda	12,910	High-income economy
Seychelles	12,530	Upper-middle-income economy
Malaysia	10,400	Upper-middle-income economy
Nauru	10,277**	Upper-middle-income economy
Mauritius	9,300	Upper-middle-income economy
Botswana	7,730	Upper-middle-income economy
Grenada	7,460	Upper-middle-income economy
South Africa	7,190	Upper-middle-income economy
Saint Lucia	7,090	Upper-middle-income economy
Dominica	6,760	Upper-middle-income economy
Tuvalu	6,630	Upper-middle-income economy
St Vincent and the Grenadines	6,580	Upper-middle-income economy
Namibia	5,840	Upper-middle-income economy
Maldives	5,600	Upper-middle-income economy
Jamaica	5,220	Upper-middle-income economy
Belize	4,660	Upper-middle-income economy
Tonga	4,490	Upper-middle-income economy
Fiji	4,430	Upper-middle-income economy
Guyana	3,750	Lower-middle-income economy
Samoa	3,430	Lower-middle-income economy
Sri Lanka	3,170	Lower-middle-income economy
Vanuatu	3,130	Lower-middle-income economy
Swaziland	3,080	Lower-middle-income economy
Nigeria	2,710	Lower-middle-income economy
Kiribati	2,620	Lower-middle-income economy
Papua New Guinea	2,010	Lower-middle-income economy
Ghana	1,760	Lower-middle-income economy
Solomon Islands	1,610	Lower-middle-income economy
India	1,570	Lower-middle-income economy
Lesotho	1,550	Lower-middle-income economy
Zambia	1,480	Lower-middle-income economy
Pakistan	1,380	Lower-middle-income economy
Cameroon	1,270	Lower-middle-income economy
Kenya	930	Low-income economy
Bangladesh	900	Low-income economy
Sierra Leone	680	Low-income economy
United Republic of Tanzania	630	Low-income economy
Rwanda	620	Low-income economy
Mozambique	590	Low-income economy
Uganda	510	Low-income economy
Malawi	270	Low-income economy

* GDP per capita (2013)

** GNI per capita (2012)

Highest human development

	<i>Human Development Index</i> ranking out of 187 countries 2012	<i>UNDP classification</i>
Australia	2	Very high human development
New Zealand	7	Very high human development
Canada	8	Very high human development
Singapore	9	Very high human development
United Kingdom	14	Very high human development
Brunei Darussalam	30	Very high human development
Cyprus	32	Very high human development
Malta	39	Very high human development
The Bahamas	51	High human development
Barbados	59	High human development
Antigua and Barbuda	61	High human development
Malaysia	62	High human development
Mauritius	63	High human development
Trinidad and Tobago	64	High human development
Seychelles	71	High human development
St Kitts and Nevis	73	High human development
Sri Lanka	73	High human development
Grenada	79	High human development
Belize	84	High human development
Fiji	88	High human development
St Vincent and the Grenadines	91	High human development
Dominica	93	High human development
Jamaica	96	High human development
Saint Lucia	97	High human development
Tonga	100	High human development
Maldives	103	Medium human development
Samoa	106	Medium human development
Botswana	109	Medium human development
South Africa	118	Medium human development
Guyana	121	Medium human development
Namibia	127	Medium human development
Vanuatu	131	Medium human development
Kiribati	133	Medium human development
India	135	Medium human development
Ghana	138	Medium human development
Zambia	141	Medium human development
Bangladesh	142	Medium human development
Pakistan	146	Low human development
Kenya	147	Low human development
Swaziland	148	Low human development
Rwanda	151	Low human development
Cameroon	152	Low human development
Nigeria	152	Low human development
Papua New Guinea	157	Low human development
Solomon Islands	157	Low human development
United Republic of Tanzania	159	Low human development
Lesotho	162	Low human development
Uganda	164	Low human development
Malawi	174	Low human development
Mozambique	178	Low human development
Sierra Leone	183	Low human development

Child mortality

Lowest under-five mortality		Highest measles immunisation rates	
<i>Under-five mortality (per 1,000 live births) 2013</i>		<i>Immunisation, measles (% of children aged 12–23 months)</i>	
Singapore	3	Belize	99
Cyprus	4	Brunei Darussalam	99
Australia	4	Guyana	99
United Kingdom	5	Maldives	99
Canada	5	Malta	99
Malta	6	Mauritius	99
New Zealand	6	St Kitts and Nevis	99
Malaysia	9	Saint Lucia	99
Antigua and Barbuda	9	St Vincent and the Grenadines	99
Sri Lanka	10	Samoa	99
Brunei Darussalam	10	Sri Lanka	99
Maldives	10	Tonga	99
St Kitts and Nevis	10	United Republic of Tanzania	99
Dominica	11	Antigua and Barbuda	98
Grenada	12	Rwanda	97
Tonga	12	Seychelles	97
The Bahamas	13	Tuvalu	96
Seychelles	14	Canada	95
Mauritius	14	Malaysia	95
Barbados	14	Singapore	95
Saint Lucia	15	United Kingdom	95
Jamaica	17	Australia	94
Belize	17	Botswana	94
Vanuatu	17	Fiji	94
Samoa	18	Grenada	94
St Vincent and the Grenadines	19	Jamaica	94
Trinidad and Tobago	21	Bangladesh	93
Fiji	24	Dominica	93
Tuvalu	29	Kenya	93
Solomon Islands	30	The Bahamas	92
Guyana	37	Lesotho	92
Bangladesh	41	New Zealand	92
South Africa	44	Kiribati	91
Botswana	47	Trinidad and Tobago	91
Namibia	50	Barbados	90
United Republic of Tanzania	52	Ghana	89
Rwanda	52	Malawi	88
India	53	Cyprus	86
Kiribati	58	Mozambique	85
Papua New Guinea	61	Swaziland	85
Uganda	66	Cameroon	83
Malawi	68	Sierra Leone	83
Kenya	71	Namibia	82
Ghana	78	Uganda	82
Swaziland	80	Zambia	80
Pakistan	86	Solomon Islands	76
Mozambique	87	India	74
Zambia	87	Papua New Guinea	70
Cameroon	95	South Africa	66
Lesotho	98	Pakistan	61
Nigeria	117	Nigeria	59
Sierra Leone	161	Vanuatu	52

Maternal mortality

Lowest maternal mortality – reported

	Maternal mortality ratio (per 100,000 live births) 2007–11
Australia	6
Singapore	6
New Zealand	8
United Kingdom	8
Malta	9
Cyprus	10
Canada	11
Grenada	23
Brunei Darussalam	27
Malaysia	29
Sri Lanka	29
Maldives	31
Saint Lucia	34
The Bahamas	37
Belize	45
St Vincent and the Grenadines	45
Barbados	52
Samoa	58
Fiji	59
Mauritius	73
Jamaica	80
Trinidad and Tobago	84
Vanuatu	86
Tonga	120
Kiribati	130
Namibia	130
Solomon Islands	130
South Africa	140
Bangladesh	170
Botswana	170
Pakistan	170
India	190
Papua New Guinea	220
Guyana	250
Zambia	280
Swaziland	310
Rwanda	320
Uganda	360
Ghana	380
Kenya	400
United Republic of Tanzania	410
Mozambique	480
Lesotho	490
Malawi	510
Nigeria	560
Cameroon	590
Sierra Leone	1100

Highest proportion of births attended by skilled health personnel

	Qualified attendant at birth (% of births) 2009–13
Barbados	100
Dominica	100
St Kitts and Nevis	100
Trinidad and Tobago	100
Grenada	100
Brunei Darussalam	100
Malta	100
Fiji	100
Singapore	100
Mauritius	100
St Vincent and the Grenadines	99
Antigua and Barbuda	99
Australia	99
Botswana	99
The Bahamas	99
Seychelles	99
Tonga	99
Maldives	99
Malaysia	99
Saint Lucia	99
Canada	98
Kiribati	98
Cyprus	97
New Zealand	96
Jamaica	96
Belize	95
Guyana	87
Swaziland	82
Samoa	81
Malawi	71
Rwanda	69
Ghana	67
India	67
Cameroon	64
Lesotho	62
Sierra Leone	61
Uganda	58
Mozambique	54
Pakistan	52
United Republic of Tanzania	49
Kenya	44
Papua New Guinea	43
Nigeria	38
Bangladesh	31

Life expectancy and HIV/AIDS

Best life expectancy		Highest prevalence of HIV/AIDS	
	Life expectancy (years) 2013		HIV/AIDS prevalence among those aged 15–49 2013
Australia	82	Swaziland	27.4
Singapore	82	Lesotho	22.9
Canada	81	Botswana	21.9
New Zealand	81	South Africa	19.1
United Kingdom	81	Namibia	14.3
Cyprus	80	Zambia	12.5
Malta	80	Mozambique	10.8
Brunei Darussalam	79	Malawi	10.3
Maldives	78	Uganda	7.4
Antigua and Barbuda	76	Kenya	6.0
The Bahamas	75	Cameroon	4.3
Barbados	75	The Bahamas	3.2
Malaysia	75	Nigeria	3.2
Saint Lucia	75	Rwanda	2.9
Belize	74	Jamaica	1.8
Jamaica	74	Trinidad and Tobago	1.7
Mauritius	74	Sierra Leone	1.6
Sri Lanka	74	Belize	1.5
Grenada	73	Guyana	1.4
Samoa	73	Ghana	1.3
Seychelles	73	Mauritius	1.1
Tonga	73	Barbados	0.9
St Vincent and the Grenadines	72	Papua New Guinea	0.7
Vanuatu	72	Malaysia	0.4
Bangladesh	71	India	0.3
Fiji	70	United Kingdom	0.3
Trinidad and Tobago	70	Australia	0.2
Kiribati	69	Fiji	0.1
Solomon Islands	68	Bangladesh	<0.1
Pakistan	67	Cyprus	<0.1
Guyana	66	Maldives	<0.1
India	66	Pakistan	<0.1
Namibia	64	Sri Lanka	<0.1
Rwanda	64		
Kenya	62		
Papua New Guinea	62		
United Republic of Tanzania	62		
Ghana	61		
Uganda	59		
Zambia	58		
South Africa	57		
Cameroon	55		
Malawi	55		
Nigeria	53		
Mozambique	50		
Lesotho	49		
Swaziland	49		
Botswana	48		
Sierra Leone	46		

Access to qualified health personnel

Most medical doctors per capita

	<i>Number of doctors per 100,000 people 2010–12</i>
Malta	350
Australia	327
United Kingdom	279
New Zealand	274
Cyprus	229
Canada	207
Singapore	192
Barbados	181
Brunei Darussalam	150
Maldives	142
Malaysia	120
Trinidad and Tobago	118
Tuvalu	109
Belize	83
Pakistan	83
South Africa	76
India	70
Sri Lanka	68
Tonga	56
Samoa	48
Fiji	43
Nigeria	40
Kiribati	38
Namibia	37
Bangladesh	36
Botswana	34
Solomon Islands	22
Guyana	21
Kenya	18
Uganda	12
Vanuatu	12
Ghana	10
Zambia	7
Rwanda	6
Papua New Guinea	5
Mozambique	4
Sierra Leone	2
Malawi	2
United Republic of Tanzania	1

Most nurses and midwives per capita

	<i>Number of nurses and midwives per 100,000 people 2010–12</i>
New Zealand	1087
Australia	1065
Canada	929
United Kingdom	883
Brunei Darussalam	773
Malta	709
Singapore	639
Tuvalu	582
Maldives	504
South Africa	490
Barbados	486
Cyprus	446
Tonga	388
Kiribati	371
Trinidad and Tobago	356
Malaysia	328
Botswana	284
Namibia	278
Fiji	224
Solomon Islands	205
Belize	196
Samoa	185
India	171
Vanuatu	170
Sri Lanka	164
Nigeria	161
Uganda	131
Ghana	93
Kenya	79
Zambia	78
Rwanda	69
Pakistan	57
Guyana	53
Papua New Guinea	46
Mozambique	41
Malawi	28
Tanzania	24
Bangladesh	22
Sierra Leone	17

Expenditure on health

<i>Highest public spending on health per capita (US\$)</i>		<i>Highest public expenditure on health as proportion of GDP (%)</i>	
	2012		2012
Australia	4,108	Tuvalu	15
Canada	4,022	Lesotho	9
United Kingdom	3,009	Kiribati	9
New Zealand	2,723	New Zealand	9
Malta	1,204	United Kingdom	8
Singapore	912	Solomon Islands	8
Brunei Darussalam	862	Canada	8
Cyprus	841	Malawi	7
The Bahamas	759	Swaziland	6
Barbados	615	Australia	6
Tuvalu	577	Rwanda	6
Antigua and Barbuda	514	Samoa	6
Nauru	491	Malta	6
Trinidad and Tobago	490	Namibia	5
Seychelles	486	Saint Lucia	5
St Kitts and Nevis	324	Tonga	5
South Africa	309	Seychelles	4
Saint Lucia	307	Guyana	4
Namibia	292	Papua New Guinea	4
Dominica	282	St Vincent and the Grenadines	4
St Vincent and the Grenadines	279	Dominica	4
Maldives	253	South Africa	4
Malaysia	230	Zambia	4
Grenada	223	Barbados	4
Mauritius	217	Antigua and Barbuda	4
Samoa	217	Maldives	4
Botswana	217	Belize	4
Tonga	200	The Bahamas	3
Swaziland	192	Jamaica	3
Jamaica	175	Cyprus	3
Belize	168	Vanuatu	3
Guyana	155	Botswana	3
Kiribati	154	Grenada	3
Solomon Islands	142	Ghana	3
Fiji	115	Mozambique	3
Lesotho	108	United Republic of Tanzania	3
Vanuatu	100	Trinidad and Tobago	3
Papua New Guinea	94	Fiji	3
Zambia	62	Sierra Leone	2
Ghana	47	Mauritius	2
Rwanda	38	St Kitts and Nevis	2
Sri Lanka	35	Malaysia	2
Nigeria	29	Brunei Darussalam	2
India	20	Uganda	2
Cameroon	20	Nigeria	2
Malawi	19	Kenya	2
Kenya	17	Singapore	2
Mozambique	17	Cameroon	2
United Republic of Tanzania	16	India	1
Sierra Leone	16	Sri Lanka	1
Pakistan	12	Bangladesh	1
Uganda	10	Pakistan	1
Bangladesh	9		

Definitions, sources and clarifications of the Millennium Development Goals

Definitions of indicators

GDP (gross domestic product): total value added at purchasers' prices by all resident and non-resident producers in the economy, plus taxes (less subsidies) not included in the calculation of value

GNI (gross national income): sum of gross value added by resident producers (plus taxes less subsidies) and net primary income from non-resident sources

HDI (Human Development Index): a composite measure of life expectancy, education and standards of living adopted by the United Nations Development Programme

Infant mortality: probability of dying between birth and exactly one year of age expressed per 1,000 live births

Life expectancy: the number of years newborn children would live if subject to the mortality risks prevailing for the cross-section of population at the time of their birth

Under-five mortality: probability of dying between birth and exactly five years of age expressed per 1,000 live births

Maternal mortality ratio: ratio of the number of maternal deaths during a given time period per 100,000 live births during the same time period

An explanation on country analyses carried out on the 'health MDGs'

In 2000 world leaders from 189 countries met at the United Nations Millennium Summit and committed their nations to a new global partnership, focused on reducing extreme poverty by 2015. Monitoring of progress is ongoing due to the time it takes to collect and analyse data from each country. The formation of the partnership resulted in the blueprint that is universally known as the Millennium Development Goals (MDGs), which are as follows:

- **MDG 1:** Eradicate extreme poverty and hunger
- **MDG 2:** Achieve universal primary education
- **MDG 3:** Promote gender equality and empower women
- **MDG 4:** Reduce child mortality
- **MDG 5:** Improve maternal health
- **MDG 6:** Combat HIV/AIDS, malaria and other diseases
- **MDG 7:** Ensure environmental sustainability
- **MDG 8:** Develop a Global Partnership for Development

It is with this in mind that the 'Progress towards health MDGs and post-2015 plans' sections for the relevant Commonwealth countries have been compiled with specific focus on MDG 4, MDG 5 and MDG 6, also known as the health MDGs. Analyses of the progress of these health MDGs were provided only for countries which either have an internally implemented MDG programme and policy, or which are not considered to have 'very high human development' by the UNDP (that is an HDI country ranking of between 48 and 187 inclusive).

The following sections outline the methodology used in assessing the relevant countries' progress towards achievement of the MDGs.

Assessing MDG 4

Goal: Reduce child mortality

MDG 4 has one target: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

There are three indicators used by international agencies to assess progress towards MDG 4:

- Under-five mortality rate
- Infant mortality rate
- Proportion of one-year-old children immunised against measles

The country profiles in *Commonwealth Health Partnerships 2015* assess two of these: the under-five mortality rate and proportion of one-year-old children immunised against measles.

The data sources are:

- Unicef, *The State of the World's Children Report 2014*, Unicef, New York
- World Bank: <http://databank.worldbank.org/ddp/home.do>

In assessing progress for MDG 4 for each relevant country:

- The latest under-five mortality is compared with one-third of the 1990 under-five mortality for that country. The trajectory of the under-five mortality graph is also analysed to see if the country is on track to achieve the target of reducing the 1990 under-five mortality by two-thirds, before or in 2015. A country is stated to have achieved part of the goal if its latest under-five mortality has reached or fallen below one-third of the 1990 under-five mortality
- For the proportion of one-year-old children immunised against measles the latest proportion is compared to a target of 100 per cent. A country has fully achieved this part of the goal if there is 100 per cent immunisation against measles

Assessing MDG 5

Goal: Improve maternal health

MDG 5 has one target: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio

There are two indicators used by international agencies to assess progress towards MDG 5:

- Maternal mortality ratio
- Proportion of births attended by skilled health personnel

The country profiles in *Commonwealth Health Partnerships 2015* assess both of these.

The data sources are:

- Unicef, *The State of the World's Children Report 2013*, Unicef, New York
- World Bank: <http://databank.worldbank.org/ddp/home.do>

In assessing progress for MDG 5 for each relevant country:

- The latest maternal mortality ratio – taken from the nationally reported figures reported by Unicef, and if unavailable modelled estimates from UN agencies/World Bank – is compared with one-quarter of the 1990 maternal mortality ratio for that country. All 1990 maternal mortality ratios are as estimated by UN agencies/World Bank. A country has achieved its target according to this indicator if the latest maternal mortality ratio has reached or fallen below one-quarter of the 1990 maternal mortality ratio
- In assessing the proportion of births attended by skilled health personnel, the latest proportion is compared to a target of 100 per cent. A country has fully achieved its target according to this indicator if 100 per cent of births are attended by skilled health personnel

Assessing MDG 6

Goal: Combat HIV/AIDS, malaria and other diseases

MDG 6 has two targets:

- Have halted by 2015 and begun to reverse the spread of HIV/AIDS
- Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

There are ten indicators used by international agencies to assess progress towards MDG 6:

- HIV prevalence among pregnant women aged 15–24 years
- Condom use rate or the contraceptive prevalence rate
- Condom use at last high-risk sex

- Percentage of population aged 15–24 years with comprehensive and correct knowledge of HIV/AIDS
- Contraceptive prevalence rate
- Ratio of school attendance of orphans to school attendance of non-orphans aged ten to 14 years
- Prevalence and death rates associated with malaria
- Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures
- Prevalence and death rates associated with tuberculosis
- Proportion of tuberculosis cases detected and cured under DOTS

Of the indicators above recommended by international agencies the country profiles in *Commonwealth Health Partnerships 2015* assess two of these:

- Death rates associated with malaria
- Incidence and death rates associated with tuberculosis

The country profiles also assess:

- HIV prevalence among population aged 15–49 years since it provides a better time series and more data for analysis in terms of understanding the impact of the disease

The data sources are:

- World Bank: <http://databank.worldbank.org/ddp/home.do>
- UNAIDS: www.unaids.org/en/regionscountries/countries/
- WHO: www.who.int/tb/country/data/profiles/en/index.html
- WHO: www.who.int/malaria/publications/world_malaria_report_2013/wmr2013_country_profiles.pdf

In assessing progress for MDG 6 for each relevant country:

- Success with regard to HIV/AIDS is judged on the basis of a decline in HIV prevalence within the 15–49 years age group over a time period going from 1990 to 2012. Understandably there are other forms of progress associated with other indicators that are not assessed here, such as prevalence among pregnant women aged 15–24, condom use and comprehensive knowledge of the disease among people aged 15–24. To counter this, national MDG progress reports and the MDG Monitor created by the United Nations Development Programme were also referenced
- Success with regard to malaria is judged on the basis of a significant fall in annual deaths over the relevant period under study, availability of data permitting
- Success with regard to tuberculosis (TB) is judged on the basis of a significant fall in estimated incidence and mortality (when mortality data excludes cases comorbid with HIV) over the relevant period under study

Data sources used in country profiles

Access to adequate sanitation facilities: Unicef, *The State of the World's Children Report 2014*, Unicef, New York

Access to an improved water source: Unicef, *The State of the World's Children Report 2014*, Unicef, New York

Causes of death for children below the age of five years: WHO, *World Health Statistics 2012*, WHO, Geneva

Non-communicable diseases: WHO, *Non-communicable Diseases Country Profiles 2011*, WHO, Geneva

GDP per capita growth: Unicef, *The State of the World's Children Report 2014*, Unicef, New York

GNI per capita: <http://databank.worldbank.org/ddp/home.do>

Government health expenditure: <http://data.worldbank.org/indicator/SH.XPD.PUBL.ZS>

Health indicators of school children: www.who.int/chp/gshs/factsheets/en/index.html

Infant mortality and under-five mortality: Unicef, *The State of the World's Children Report 2013*, Unicef, New York; <http://databank.worldbank.org/ddp/home.do>

Largest contribution to mortality: WHO, *Non-communicable Diseases Country Profiles 2011*, WHO, Geneva

Life expectancy: Unicef, *The State of the World's Children Report 2013*, Unicef, New York; <http://databank.worldbank.org/ddp/home.do>

Malaria data: www.who.int/malaria/publications/world_malaria_report_2013/wmr_2013_country_profiles.pdf

Maternal mortality ratio – reported and adjusted: Unicef, *The State of the World's Children Report 2013*, Unicef, New York

Mental health data: www.who.int/mental_health/evidence/atlas/profiles/en/index.html

Country MDG progress: www.mdgmonitor.org/factsheets.cfm

Medical doctors per 100,000 population: <http://data.worldbank.org/indicator/SH.MED.PHYS.ZS>

Mortality by cause of death among all age groups: WHO, *Non-communicable Diseases Country Profiles 2011*, WHO, Geneva

Nurses and midwives per 100,000 population: <http://data.worldbank.org/indicator/SH.MED.NUMW.P3>

One-year-olds immunised with one dose of measles: Unicef, *The State of the World's Children Report 2014*, Unicef, New York

Pharmaceutical personnel per 100,000 population: http://apps.who.int/gho/data/node.imr.HRH_25?lang=en

Population: Unicef, *The State of the World's Children Report 2014*, Unicef, New York

Prevalence of HIV, as a percentage of population aged 15–49 years: <http://databank.worldbank.org/ddp/home.do>; www.unaids.org/en/regionscountries/countries/

Prevalence of risk factors for NCDs in adults: WHO, *Noncommunicable Diseases Country Profiles 2011*, WHO, Geneva

Proportion of births attended by qualified health staff: Unicef, *The State of the World's Children Report 2013*, Unicef, New York

TB data: www.who.int/tb/country/data/download/en/index.html

UN HDI 2012 ranking: <http://hdr.undp.org/en/statistics/>

Data on the elderly: www.helpage.org

Note on data in graphs

Updates and revisions to World Bank data over time may introduce discrepancies in statistics between different editions of *Commonwealth Health Partnerships*.

Acronyms and abbreviations

ACP	African, Caribbean and Pacific Group of States	HICs	High-income countries
AMR	Antimicrobial resistance	HIMS	Health Information Management System
AMS	Antimicrobial stewardship	ICC	Infection Control Committee
ARV	antiretroviral	ICESCR	International Covenant on Economic, Social and Cultural Rights
ASP	Antimicrobial stewardship programme	iCST	Individual Cognitive Stimulation Therapy
ATA	American Telemedicine Association	ICT	Information and communication technology
BALM	Banyan Academy of Leadership in Mental Health (India)	ICU	Intensive care unit
CA	Contribution agreement	IDSR	Integrated Disease Surveillance and Response
CARICOM	Caribbean Community	IMF	International Monetary Fund
CBR	Community-based rehabilitation	ITU	International Telecommunication Union
CBT	Cognitive behavioural therapy	LEO	Lambeth Early Onset (London)
CCIO	Chief Clinical Information Officer	LMICs	Low- and middle-income countries
CCRN	Comprehensive Clinical Research Network	MBF	Mixed breastfeeding
CDC	Centers for Disease Control and Prevention (US)	MCRN	Medicines for Children Research Network
CHAS	Community Health Assist Scheme	MDAC	Mental Disability Advocacy Center
CHD	Coronary heart disease	MDD	Model-driven development
CHOICE	Choosing Interventions that are Cost Effective (WHO programme)	MDG	Millennium Development Goal
CLRN	Comprehensive Local Research Network	MDR	Multiple drug resistant
CMA	Commonwealth Medical Association	MDRI	Mental Disability Rights Initiative
COPD	Chronic obstructive pulmonary disease	MeTA	Medicines Transparency Alliance
CPD	Continuing professional development	MHAP	Mental Health Action Plan
CROC	Convention on the Rights of the Child (UN)	MRSA	Methicillin-resistant <i>Staphylococcus aureus</i>
CRPD	Convention on the Rights of Persons with Disabilities (UN)	NCD	Non-communicable disease
CSDH	Commission on Social Determinants of Health (WHO)	NCRN	National Cancer Research Network
CSO	Civil society organisation	NELFT	North East London Foundation Trust
DALYs	Disability-adjusted life years	NGO	Non-governmental organisation
DEEWR	Department of Education, Employment and Workplace Relations (Commonwealth)	NHIS	National Health Insurance Scheme (Nigeria)
DHB	District health board	NHS	National Health Service
DLA	Disability living allowance	NIHR	National Institute for Health Research (UK)
DoEaSA	Department of Economics and Social Affairs (UN)	NIMHANS	National Institute of Mental Health and Neurosciences (India)
DRC	Dementia Research Centre (UK)	NME	New molecular entity
DRN	Diabetes Research Network	OADR	Old-age dependency ratio
EBF	Exclusive breastfeeding	ODA	Official Development Assistance for Aid
ECDC	European Center for Disease Control	ODI	Overseas Development Institute
EFF	Exclusive formula feeding	ORT	Oral rehydration therapy
ESI	Emotional-Social Intelligence	OSW	Commonwealth Office of the Status of Women
ESM	Experience Sampling Methodology	PAHO	Pan American Health Organization
FAO	Food and Agriculture Organization (UN)	PBFF	Population-based funding formula
FASD	Fetal Alcohol Spectrum Disorder	PbR	Payments by Results
FDA	US Food and Drug Administration	PEPFAR	President's Emergency Plan For AIDS Relief (USA)
FI	Family intervention	PICs	Pacific island countries
GDP	Gross domestic product	PoA	Commonwealth Plan of Action
GHQ	General Health Questionnaire	POHLN	Pacific Open Learning Health Net
GP	General practitioners	PPTC	Pacific Paramedical Training Centre (New Zealand)
		PRSC	Poverty Reduction Strategy Credit
		PRSP	Poverty Reduction Strategy Papers

Reference

PWMI	Persons with mental illness	TRIPS	Agreement on Trade Related Aspects of Intellectual Property Rights (WTO)
QOL	Quality of life	TSN	The Surveillance Network
RCT	Randomised controlled trial	UHC	Universal health coverage
RF	Replacement feeding	UMHP	Urban Mental Health Programme
RGF	Research Governance Framework	UN	United Nations
RHD	Rheumatic heart disease	UNAIDS	Joint United Nations Programme on HIV and AIDS
RMHP	Rural Mental Health Programme	UNCPRD	United Nations Convention on the Rights of Persons with Disabilities
SADC	Southern African Development Community	UNICEF	United Nations Children's Fund
SDG	Sustainable Development Goal	WAMMM	Women's Affairs Ministers Meeting
SDH	Social determinants of health	WEF	World Economic Forum
SDT	Self-Determination Theory	WFMH	World Federation for Mental Health
SHARP	Social Inclusion, Hope and Recovery Project	WHA	World Health Assembly
SHG	Self-help group	WHO	World Health Organization
SIG	Special Interest Group	WMA	World Medical Association
SRN	Stroke Research Network	WONCA	World Organization of Family Doctors
SRTT	Sir Ratan Tata Trust (India)	WPA	World Psychiatric Association
SSA	Sub-Saharan Africa	WTO	World Trade Organization
SUN	Scaling Up Nutrition	YLD	Years lived with disability
SURE	Secure Unified Research Environment project		
SWAps	Sector-wide approaches		
TB	Tuberculosis		

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Botswana Nurses Union	153
El-Hanan Ventures Limited	232
National Veterinary Research Institute, Nigeria	230
Nyaho Medical Centre	175
Premier Medicaid Nigeria Limited.....	228
Sakhiwo Infrastructure and Health Solutions.....	6



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Nexus |

Nexus Strategic Partnerships produces several publications for the Commonwealth Secretariat, including *Commonwealth Education Partnerships*, *The Commonwealth Yearbook*, *Global: the international briefing* and *The Commonwealth Governance Handbook*.

Commonwealth Secretariat

Established in 1965, the Commonwealth Secretariat is the main intergovernmental agency of the 53-country grouping. It works as a trusted partner of governments, civil society and donors on shared goals of democracy and development.



Commonwealth Health Partnerships 2015

is the essential overview of health in the Commonwealth.

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- The Ebola crisis, AIDS and other communicable diseases; antimicrobial resistance
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