11 health questions about the 11 SEAR countries

World Health Organization
Regional Office for South-East Asia

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Regional Office for South-East Asia

Evidence and Health Information Unit
Department of Health Systems Development

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Contents

Foreword

The 11 Member countries comprising WHO's South-East Asia Region are home of approximately 25 % of the world's population, with almost 30 % of the global disease burden. For almost 60 years, the WHO Regional Office for South-East Asia has been working with its Member countries, and this collaboration resulted in some remarkable achievements in improving people's health. Based on several common epidemiological, geographical and health development factors, this book, *"11 Health Questions about 11 SEAR Countries"* consists of a "mini-profile" of each country of this Region.

This book, providing health information on the Region should facilitate an exchange of knowledge about these countries; each chapter provides glimpses of a country's health situation, with key population statistics and summaries of current developments in the health situation and in health system policy. Eleven frequently asked questions about the health situation and health development have been selected. Indicators and other health information using the most recent data reflect the situation till 2006. However, future developments in health system development will be updated. Data related to each country have been consulted, verified and validated by the responsible officials in the Ministries of Health, as well as by the various technical departments and units within WHO Regional and Country Offices.

The book should also help Member countries in reviewing and analyzing their core data and information and encourage then to monitor the health status and health system performance at the national and sub-national levels in a user-friendly way.

It is hoped that this book will facilitate the sharing of quantitative and qualitative health information among all those interested in improving health, and provide an evidence base to support health policy debate and decisions to further strengthen health systems in the countries of this Region.

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Regional Director

About the book

- The information provided in this book has been compiled from various sources, mainly from national health information bulletins and publications, as well as from official publications of WHO and other UN agencies. The data and information are the most recent available; these will change overtime and be updated accordingly.
- Though most of the data refer to the period 2003 to 2006, the specific reference year and source are provided along with the respective data value. In addition, a list with a full description of corresponding references is provided at the end of the country profile. Core Health Indicators and Millennium Development Goals 2005 brochures, Regional Health Situation Reports and other health information are available in the SEARO web site www.searo.who.int.
- With regard to certain indicators, reliable and meaningful comparisons might not be always possible, due to different years of reference, variations in data sources and methodological issues.
- Symbol 'C' under source column denotes 'computed value', and symbol 'CC' denotes 'country comments' where a country provided the data without citing any published source. 'NA' under value column denotes 'data not available'.

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This publication was prepared by the Evidence & Health Information Unit of the Department of Health Systems Development, with inputs from various technical units of the WHO Regional Office as well as WHO country offices in the South-East Asia Region.

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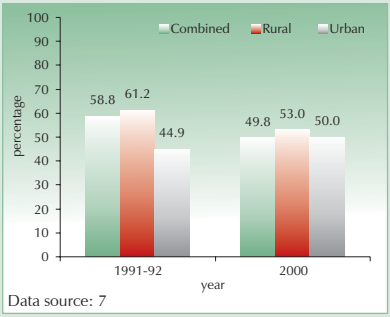
Country Profiles

Bangladesh

Basic information	Latest available value	Year	Source
Total population (million)	140	2005	{8}
Area (sq.km.)	147,570		{CC}
Density of population (per sq.km.)	948	2004	{3}
Administrative divisions	6 divisions and 64 districts		

Development	Latest available value	Year	Source
Gross national income per capita (US$)	470	2005	{5}
Highest in the world – Norway	59590	2005	{5}
Highest in the Region – Thailand	2750	2005	
Population below poverty line – Intl.$1 per day (%)	36	2000	{5}
Lowest in the Region – Maldives	<1	2004	
Population below national poverty line (%)	50	2000	{7}
Lowest in the Region – Maldives	8	2004	
Adult literacy rate >15 years (%)	50	2002	{8}
Highest in the Region – DPR Korea	100	2003	
Net enrolment ratio – primary (%)	94	2004	{6}
Highest in the Region – DPR Korea	100	2003	
Human Development Index	0.530	2004	{6}
Highest in the Region – Thailand	0.784	2004	
Human Poverty Index (%)	44.2	2006	{6}
Lowest in the Region – Thailand	9.3	2006	
Gender-Related Development Index	0.524	2005	{6}
Highest in the Region – Thailand	0.781	2006	

Percentage of population below national poverty line



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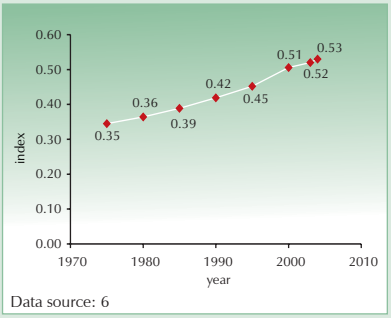
Human Development Index



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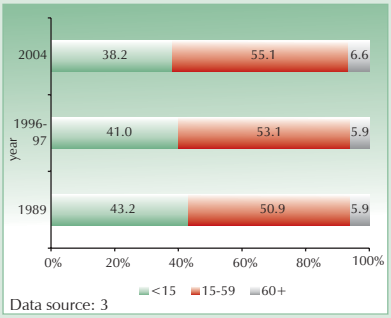
Salient basics

- Bangladesh is a densely populated country. It is home to more than 2% of the world's population.
- It is a low-lying country and is affected by frequent cyclones and floods.
- It is in the category of least developed countries but has shown marked improvement in the recent past.
- Income inequalities rose in the nineties with the Gini coefficient going up to 0.306 in 2000 from 0.259 in 1992.

Q1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population (million)	140	2005	{8}
Percentage of world's total	2.14	2004	{C}
Population growth rate per year (%) – natural	1.54	2001	{8}
Urban population (%)	31	2003	{CC}
Age-sex structure			
Sex ratio (F/1000M)	943	2003	{CC}
Children <15 years (%)	38	2004	{8}
Elderly >60 years (%)	7	2004	{CC}
Highest in the world – Italy, Japan	26	2005	{10}
Highest in the Region – DPR Korea	12	2002	
Dependency ratio (%)	60	2005	{35}
Fertility			
Birth rate (per 1000 population)	20.9	2003	{CC}
Lowest in the world – Germany, Ukraine	8.0	2004	{11}
Lowest in the Region – Thailand	12.7	2002	
Total fertility rate (TFR) (per woman)	3.0	2004	{8}
Lowest in the world – Ukraine	1.1	2004	{12}
Lowest in the Region – Thailand	1.6	2000	
Contraceptive prevalence (%)	58.1	2004	{3}
Gross mortaility			
Crude death rate (per 1000 population)	5.9	2003	{CC}
Lowest in the world – UAE	1.0	2004	{11}
Lowest in the Region – Maldives	3.0	2005	

Percentage of population in different age groups



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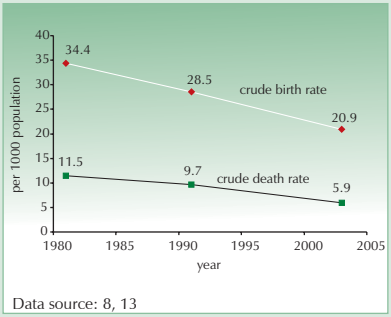
Crude birth rate and crude death rate



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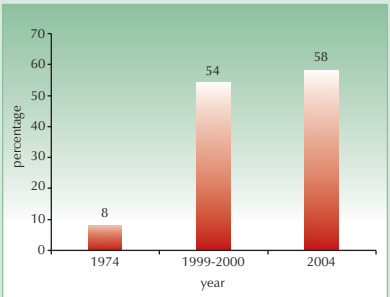
Contraceptive prevalence



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Salient demographic features

- Bangladesh has an adverse sex ratio with nearly 943 females per 1000 males.
- Child population <15 years is 38%.
- Both the birth rate and death rate have declined considerably in the recent past. The crude death rate at 5.9 per 1000 population shows a declining trend.

2

What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005	2015 (Target)
Poverty and hunger				
Population below minimum level of dietary energy consumption (%)	35	32	30 (2002)	17.5
Under-weight (<-2SD) children aged 6-71 months (%)	66	51	48 (2004)	33
Child mortality				
Infant mortality rate (per 1000 live births)	94	56 (2001)	53 (2003)	32
Under-five mortality rate (per 1000 live births)	151	94	88 (2003)	50
One year olds immunized against measles (%)	54 (1991)	61	77 (2004)	>90
Maternal health				
Maternal mortality ratio (per 100,000 live births)	574	400	380 (2002)	143
Deliveries attended by health staff (%)	5	12	13 (2004)	
HIV/Malaria/Tuberculosis				
HIV prevalence in 15-49 years (per 100,000 population)	N/A	N/A	<100 (2004)	
Malaria incidence (per 100,000 population at risk)	N/A	N/A	54	
Tuberculosis prevalence (per 100,000 population)	640	N/A	435 (2004)	
Tuberculosis cases detected (%)	N/A	N/A	61	
Water and sanitation				
Population with access to improved water source (%)				
Combined	79	99	97 (2004)	90
Rural	88 (1991)	97 (2001)	97 (2004)	
Urban	45 (1991)	100 (2001)	99 (2004)	
Population with access to improved sanitation (%)				
Combined	23	22	59 (2004)	
Rural	11	N/A	55 (2004)	
Urban	71	N/A	71	

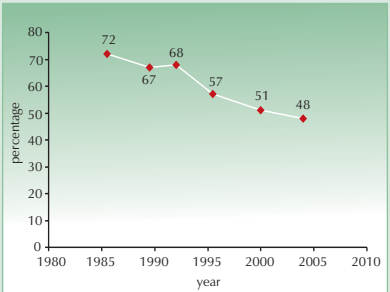
MDG progress

- Except for reduction in underweight children and provision of water supply, the progress with regards to health-related MDGs may not be on track.
- For diseases such as HIV, malaria and tuberculosis, baseline information is not available.

Q 3 What are the major health problems?

Indicators	Latest available value	Year	Source
In children under-five years			
Low birth weight prevalence (%)	40	2005	{7}
Lowest in the Region – Indonesia	6	2002	
Stunted children (%)	43	2004	{3}
Lowest in the world – Croatia	1	1998-2004	{11}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children (%)	48	2004	{3}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{11}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Diarrhoeas – incidence (per 1000 children <5 years)	75	2004	{3}
Acute respiratory infections – incidence (per 1000 children <5 years)	208	2004	{3}
Other diseases			
Tuberculosis incidence (per 100,000 population)	221	2005	{CC}
Malaria incidence (per 100,000 population)	44	2004	{CC}
% of population having unsafe level of arsenic (>50 ppb) in drinking water	8.5	2004	{3}
Kala Azar prevalence (per 100,000 people at risk)	175	2004	{13}
HIV prevalence (per 100,000 population) – Total population	9	2004	{13}
– 15-49 years	<100	2004	{7}
Diabetes prevalence (per 100,000 population)	2283	2005	{15}
Cancer prevalence (per 100,000 population)	143	2005	{13}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	7.3	2002	{16}
Female	9.3	2002	{16}
As % of expected life at birth (ELB) lost			
Male	11.7	2002	{16}
Female	14.8	2002	{16}

Percentage of under weight children



Data source: 3, 7

Major health problems

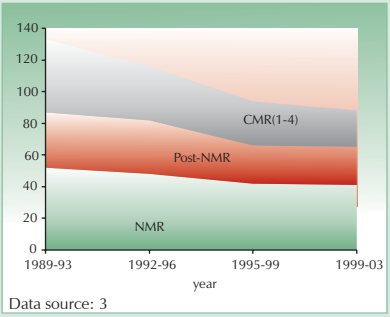
- Nutrition and childhood infections.
- Communicable diseases are still predominant. Data on noncommunicable (chronic) diseases may not be adequate.
- More than one-tenth of equivalent life is lost due to various illnesses.

4

What is the mortality profile?

Indicators	Latest available value	Year	Source
Mortality rates			
Neonatal mortality rate (per 1000 live births)	41	1999-2003	{3}
Lowest in the world – Singapore	1	2000	{12}
Lowest in the Region – Maldives	8	2005	
Infant mortality rate (per 1000 live births)	53	2003	{CC}
Lowest in the Region – Sri Lanka	11	2003	
Under-five mortality rate (per 1000 live births)	88	1999-2003	{3}
Lowest in the world – Iceland, Singapore	3	2004	{11}
Lowest in the Region – Maldives, Srilanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	380	2002	{8}
Lowest in the Region – Thailand	14	2003	
Age at death			
Expectation of life at birth (ELB) (years)	65	2002	{8}
Highest in the world – Japan	82	2004	{17}
Highest in the Region – Maldives, Sri Lanka	73	1996-2001	
Deaths under-five years (% of total deaths)	31	2003	{C}
Lowest in the Region – Thailand	4	2002	
Causes of death			
Three major causes of deaths (% of <5 years deaths)			
Acute respiratory infection	21	2004	{3}
Birth asphyxia	12	2004	{3}
Premature births/LBW	7	2004	{3}
Three major causes of deaths (% of total deaths)			
Pneumonia	14	2002	{8}
Other Respiratory Diseases	7	2002	{8}
Tuberculosis deaths	7	2002	{24}
Malaria death rate (per 100,000 population)	0.5	2003	{18}
Diarrhoea (% of total deaths)	6	2002	{5}
Cerebrovascular disease deaths (% of total deaths)	6	2002	{24}

Comparision of mortality rates



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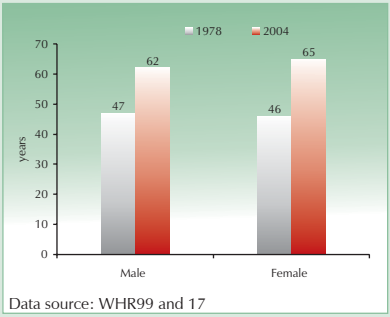
Comparison of expectation of life at birth in male and female



Data source: WHR99 and 17

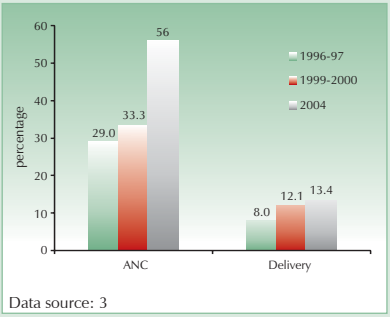
Mortality profile

- Child mortality is declining. Correspondingly expectation of life is increasing.
- Maternal mortality continues to pose a challenge.
- Major causes of death in total population are pneumonia, other respiratory diseases and diarrhoea.

Q 5 What resources are available for the health sector?

Indicators	Latest available value	Year	Source
Expenditure on health			
Percentage of GDP	3.4	2003	{17}
Highest in the world – USA	15.2	2003	{17}
Highest in the Region – Timor-Leste	9.6	2003	
Per capita (US$)	14	2003	{17}
Per capita (Intl.$)	68	2003	{17}
Highest in the world – USA (Intl.$)	5711	2003	{17}
Highest in the Region – Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2200	2001-2003	{19}
Services			
Health centres (per 100,000 population)	1.0	2004	{C}
Antenatal care coverage (at least one visit) (%)	56	1999-2004	{3}
Deliveries by skilled birth attendant (%)	13	1999-2004	{3}
Pregnant women immunized with TT (at least one) (%)	85	1999-2004	{3}
Children immunized by age one year (%)	70		
BCG	99	2005	{CC}
DPT-3	83	2005	{CC}
Polio-3	90	2005	{CC}
Measles	77	2005	{CC}
Beds (per 10,000 population)	4.0	2005	{CC}
Highest in the world – Monaco	196	1995	{12}
Highest in the Region – DPR Korea	132	2002	
Human resources			
Doctors of modern system (per 10,000 population)	3.0	2004	{18}
Highest in the world – Cuba	59	2002	{17}
Highest in the Region – DPR Korea	32	2003	
Nurses (per 10,000 population)	1.4	2004	{18}
Highest in the Region – DPR Korea	37	2003	
Midwives (per 10,000 population)	1.8	2004	{17}
Dentists (per 10,000 population)	0.2	2004	{17}
Pharmacists (per 10,000 population)	0.6	2004	{17}
Public and Environmental Health Workers (per 10,000 population)	0.4	2004	{17}
Community Health Workers (per 10,000 population)	3.1	2004	{17}
Lab Technicians (per 10,000 population)	0.3	2004	{17}
Other Health workers (per 10,000 population)	0.4	2004	{17}

Trend of ANC coverage and delivery in different years



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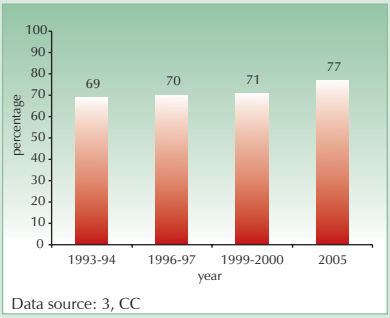
Percentage of measles vaccination coverage



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Health resources

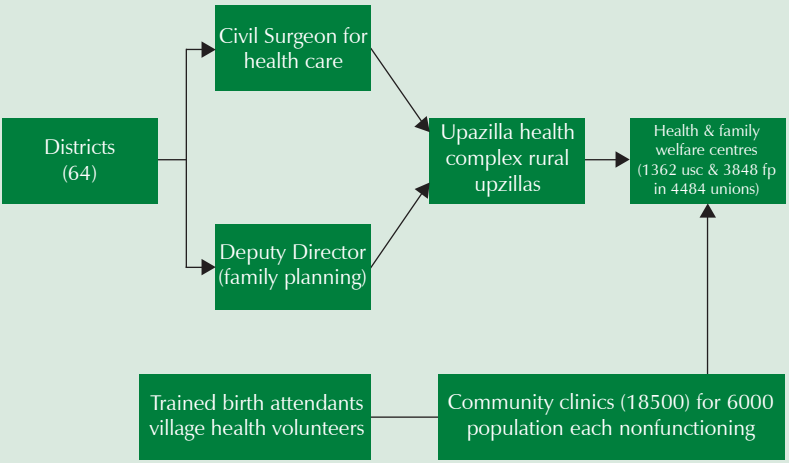
- Of the total GDP, 3.4% is spent on health.
- Immunization coverage is increasing.
- Number of health workforce is limited.
- Regarding parents of sick children under five years, 8% are able to seek care from a qualified health care provider.

6 What is the system of health governance?

The Ministry of Health & Family Welfare is responsible for policy, planning and decision making at macro level. There are four directorates.

- Directorate General of Health Services
- Directorate General of Family Planning
- Directorate of Drug Administration
- Directorate of Nursing Services

Each of the six Divisions in Bangladesh has a Divisional Director from both the Health and Family Planning department. At the District level, the Civil Surgeon reports to the Directorate of Health Services and is responsible for general health services and the district referral hospital, and the Deputy Director (Family Planning) looks after family planning, MCH and reproductive health services.



Out of 476 Upazillas, all 400 rural Upazillas have health complexes, and are functioning with 31-50 beds. At the next level of 4484 Unions, 1362 Union subcentre functioning through health services, and 3648 Health & Family Welfare Centres run by the Family Planning (FP) Department. There are duplication of both health and FP facilities in some unions, and there are some unions with no facility.

Besides, there are 671 hospitals with total number of 35500 beds operated by Directorate General of Health Services and 91 Maternity and Child Welfare Centres run by Directorate General of Family Planning.

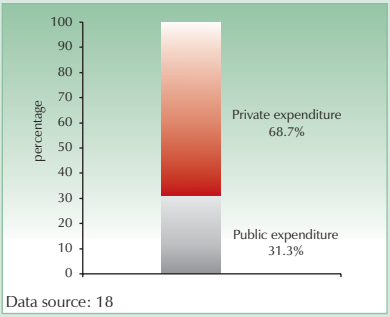
Traditional system

The traditional systems of which practiced are Unani and Ayurvedic. The Board of Unani and Ayurvedic Systems of Medicine controls the teaching in five Unani and four Ayurvedic institutions.

7 Who pays for health care?

Indicators	Latest available value	Year	Source
Government expediture on health			
Out of total health expenditure (%)	31	2003	{17}
Per capita (US$)	4	2003	{17}
Per capita (Intl.$)	21	2003	{17}
Highest in the world – Monaco (Intl.$)	3403	2003	{17}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (% of total expenditure on health)	69	2003	{17}
Per capita (US$)	10	2003	{C}
Per capita (Intl.$)	47	2003	{C}
Lowest in the Region – DPR Korea	0.4	2004	
Out-of-pocket expenditure (% of private expenditure on health)	86	2003	{17}
Lowest in the world – Tuvalu	13	2003	{17}
Lowest in the Region – Timor-Leste	26	2004	

Health expenditure



Data source: 18

Health expenditure

- Public health expenditure is less than one-third of the total health expenditure.
- Per capita public health expenditure is 21 Intl.$.
- Nearly 86% of private expenditure is out-of-pocket.

8 What are the recent reforms and achievements of the health system?

Health sector reforms

- The Health, Nutrition and Population (HNP) Sector Programme (HNPSP), launched in 2003 and revised in 2005, aims to reform the health and population sector with the long-term vision of creating a modern, responsive, efficient and equitable HNP sector. The programme entails provision of a package of essential and quality health care services responsive to the needs of people, especially those of children, women, the elderly and poor.
- The health sector strategy has been formulated using the participatory approach involving stakeholders in the health sector. Earlier the top-down approach was used.

Achievements

- Child mortality is rapidly declining and life expectancy is increasing.
- The prevalence of severely under-weight children (age 6-71 months) was halved from 25% in 1990 to 13% in the 2000. Yet, child malnutrition in Bangladesh remains among the highest in the world.
- Since 1997, prevalence of night blindness, an indicator of vitamin A deficiency, has been maintained at below the threshold of 1% so that it is no longer a public health problem. This success is largely due to the vitamin A supplementation programme.
- Since 2000, no case of wild polio virus transmission has been confirmed in the country. But, in 2006, the disease reimmerged due to importation of 17 wild polio cases.

- Bangladesh achieved elimination of leprosy at the national level at the end of 1998 with prevalence of less than 1 per 10,000, two years ahead of the target. The present effort is to achieve this at subnational level.
- Diarrhoeal diseases continue but the mortality has considerably declined. The availability of ORS has increased through the ORS depot-holders in the community which have been augmented.

Legislation

- Tobbaco Control Law – 2005, and Tobacco Control Regulations - 2006 are being implemented in the country.

9 What are the constraints and challenges of the health system?

Financial constraints

- The estimated health expenditure amounts to 6% of the total government budget. A large part of expenditure is incurred on salaries that leaves not much for development. A significant part of development budget comes from external sources.
- Although all citizens should get free service in all government facilities, a survey in 1999 indicated that 22% of people make extra payments and 27% pay a registration fee. More than half of the respondents reported willingness to officially pay if the government health services improve.

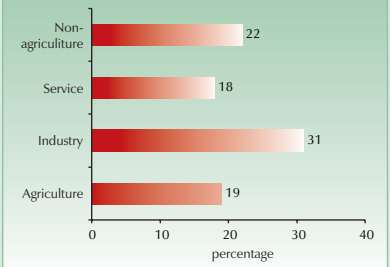
Expertise and other physical constraints

- The infrastructure needs to be strenghtened to tackle the health problems.
- Involvement of NGOs in the health and population sector is very wide and dispersed. While this should be an asset, specific roles of each are not well defined. NGOs have proved their excellence, and they would do well if their priority areas are specified.
- Local communities may supervise low-performing areas and the management of hospitals as they are being made more autonomous. However, they require training for the adoption and utilization of existing tools and techniques for participatory appraisals, planning, implementation and monitoring.

Social constraints

Indicators	Latest available value	Year	Source
Inequalities – Gender			
Expectation of life at birth F:M	1.01	2002	{8}
Professional and technical workers (% women)	25	1992-2001	{20}
Female share in non-agricultural sector (%)	22	2000	{7}
Ratio of earned income (female as % of males)	0.50	2002	{20}
Seats held in parliament – F (%)	2.0	2004	{7}
Ratio of girls to boys in primary schools (%)	104	2002-2003	{21}
Adult literacy rate (F as % of M)	82	2001	{29}
Inequalities – Spatial			
Total fertility rate (per woman)			
Urban	2.5	2001-2004	{3}
Rural	3.2	2001-2004	{3}
Children with diarrhoea taken to a health provider (%)			
Urban	31	2004	{3}
Rural	12	2004	{3}
Under-five mortality rate (per 1000 live births)			
Urban	52	2001	{7}
Rural	89	2001	{7}

Percentage of female share of employment in different sectors



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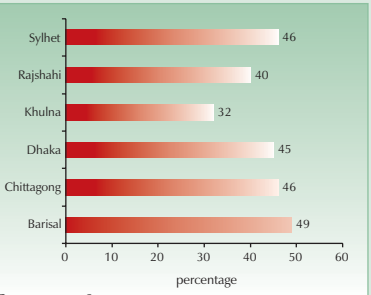
Provincial distribution of stunted children, 2004



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Inequalities are visible. While more than 30% of children in urban areas with diarrhoea were taken to a health provider, this was a meagre 12% for rural areas. While 49% of children in Barisal were stunted, it was a relatively low 32% in Khulna.

Health sector constraints

- Though the national policy and workplans are approved, there is a limited monitoring mechanism for environmental health concerns.
- Incompletely functioning information system.
- Supervision and accountability of the health personnel.
- Centralization in the planning and implementation process and non-utilization of the health management information system (HMIS).
- Limited awareness and inadequate utilization of health services in public sector.

Challenges

Nutrition

- Despite impressive gains made in the recent past, Bangladesh remains among the countries with the highest rate of under-nourishment.

Health services

- Substantially increasing the coverage of antenatals and deliveries. So far, attendance of deliveries by skilled personnel is 13% and antenatal care is accessed by only 56%. The Bangladesh Demographic Health Survey 2004 reported improvement over these rates.

- About two-thirds of infant mortality is in the neonatal period as a direct consequence of factors such as low birthweight, preterm delivery and birth asphyxia. This underscores the need to improve maternal nutrition and antenatal care.
- Bangladesh has no national food safety policy. The incidence of food-borne diseases is high.
- Need for development of an efficient project management mechanism across the health system; improvement in logistics of drug supplies and equipment for the health facilities at lower level; improvement in quality and quantity of human resources for health; a system to ensure regular maintenance and upkeep of health facilities; and a plan to improve and assure the quality of health services.

Q 10 What does the country hope to achieve in the near future in health?

- The main objectives of the National Health Policy are to improve the health and nutritional status, and reduce the infant and maternal mortality through:
  - affordable and cost-effective strategy for the rural population;
  - quality domicillary and institutional health care at the peripheral level;
  - universal access to health care; and
  - improving availability of health care personnel.
- Bangladesh has identified population control as the top priority for government action. The objective is to reduce the total fertility rate and attain a net reproduction rate of 1 by 2010 so as to stabilize the population by 2060.
- The goal is to build one Union Subcentre or Health & Family Welfare Centre in every Union (4484); one health complex in every *thana* (397); and one general hospital or tertiary facility in every district (64).
- Strengthening of the health management information system (HMIS) through training, use of data collection tools that are already designed, and the establishment of information networks with computer support.
- Deliver on Essential Services Package to the whole population with the aim to maximize health benefits per capita expenditure. This is expected to meet the felt needs of the people, strengthen service delivery, and improve system management.

- Introduce a sector-wide approach to manage the health sector, rather than a disparate series of projects as done so far.
- Increase health insurance coverage in urban areas through development of a health insurance scheme for public sector employees.
- Review and revise existing policies for improving accessibility, affordability and quality of services; and develop new policies on public and private sectoral mix for health financing.
- Greater allocation of public-sector funds to support services for the poor, vulnerable groups, especially women and children.

11 How is WHO collaborating with the country?

Policy development and planning

- Support is provided for intensified PHC Project in 20 districts. This contributed to the Health System Development Programme at the PHC level.
- Developing the Strategic Investment Plan 2003-2010 and revising the HNPSP for 2003-2010.
- Introduction of alternative health care financing: Pilot Demand Side Financing.
- Introduction of Community Based Skill Birth Attendants for improvement of maternal health.

Health system management

- Technical support to the government to implement different components of the Health Nutrition and Population Sector Programme (HNPSP). WHO is involved in the initiatives for improvement of maternal health and implementation of the Essential Services Delivery package under HNPSP. Through the initiative of WHO, development and scaling-up of Community-based Skill Birth Attendants (SBA) and piloting of the Maternal Health Voucher Scheme, a Demand Side Financing approach, are implemented in the country, which will contribute to the improvement of maternal health. WHO support was instrumental in introducing and scaling-up IMCI in the country and adolescent-friendly health services. The priority areas for WHO assistance include malaria, kala-azar elimination, elimination of leprosy, dengue haemorrhagic fever, control of tuberculosis, scaling-up of facility and community-based IMCI, HIV/AIDS, nutritional deficiency, and blood safety, epidemic alert and emergency preparedness and response.
- Technical support has been provided to build national capacity in disease surveillance, in setting standards for case definitions and laboratory diagnosis, outbreak investigations, and in developing simple diagnostic and clinical management guidelines for health workers.

- Continuous support has been provided to check the human resource for health, particularly in the area of capacity building through external and in-country training of different categories of auxilliary health personnel. Moreover, support has been provided for health systems and institutional strengthening and capacity building of mid-level managers on leadership development and improved amangement of services.
- Assistance is being provided in strengthening, expanding and improving EPI. Support is closely being provided to implement the strategy to achieve a sustainable reduction in measles mortality and morbidity through a 'Measles Catch-up Campaign' throughout the country with successful immunization of 35 million children against measles.

Promotion of healthy lifestyles and settings

- In the area of environmental health, the major WHO strategic interventions include (a) development of training and information modules, (b) water quality measurement, (c) arsenic-safe water supply solution, (d) mitigation of health effects of exposure to arsenic, and (e) baseline health survey and linked health research. WHO has supported piloting of healthy settings with the development of a Local Environmental Health Action Plan.
- Support has been provided to develop a National Plan of action on NCD surveillance and a National Plan of Action for Tobacco Control and integrated guidelines for prevention of major NCDs at the primary health care level. WHO support was instrumental in enacting the "Tobacco Control Act – 2005" and Tobacco Control Regulations – 2006".
- Support was provided for institutional capacity building in the health sector for emergency preparedness, health risk assessment, vulnerability reduction and disaster mitigation.

Prevention and control of priority diseases

- About 65% of the TB cases in the country have been brought under DOTS strategy with more than 85% cure rate through successful partnership between the government, WHO, NGOs, other stakeholders and the community. The strategy has been extended to cover all rural upazillas.
- WHO plays a strong catalytic as well as technical role in supporting common-border related diseases such as poliomyelitis, HIV/AIDS, tuberculosis, malaria, dengue and cholera, which are crucial to reduce adverse health consequences following a disaster.

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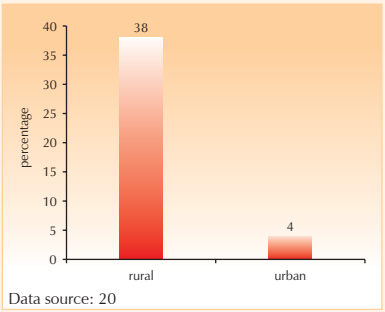
Bhutan

Basic information	Latest available value	Year	Source
Total population	637,000	2005	{7}
Area (sq.km.)	38,394		{1}
Density of population (per sq.km.)	16	2005	{CC}
Administrative divisions	20 Dzongkhags (districts) and 205 Geogs (blocks)		

Development	Latest available value	Year	Source
Gross national income per capita (US$)	1235	2006	{CC}
Highest in the world (GNI) – Norway	59590	2005	{4}
Highest in the Region – Thailand (GNI)	2750	2005	{4}
Population below national poverty line (%)	32	2004	{3}
Lowest in the Region – Maldives	8	2004	
Adult literacy rate >15 years (%)	59.5	2005	{CC}
Highest in the Region – DPR Korea	100	2003	
Net enrolment ratio – primary (%)	79.4	2006	{CC}
Highest in the Region – DPR Korea	100	2003	
Human Development Index	0.538	2004	{5}
Highest in the Region – Thailand	0.784	2004	
Human Poverty Index (%)	39.0	2006	{5}
Lowest in the Region – Thailand	9.3	2006	
Gender-Related Development Index	0.444	1999	{15}
Highest in the Region – Thailand	0.781	2006	

Percentage of population below national poverty line



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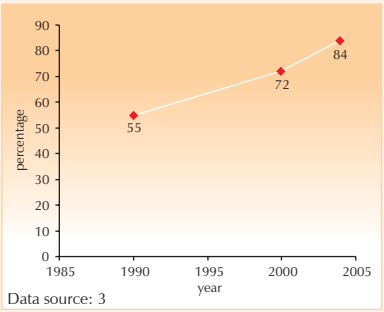
Percentage of gross primary enrolment ratio



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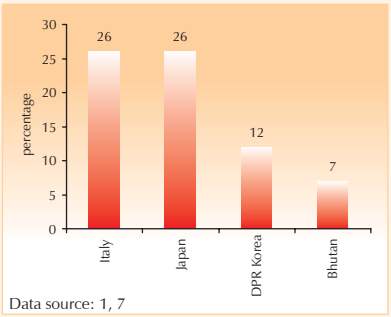
Salient basics

- Bhutan is a landlocked, Himalayan Kingdom with scattered and remote settlements. Many parts of the country are extremely difficult to access.
- Although income per capita is better than some of its neighbours, nearly 32% of the population is below the national poverty line. The Gini coefficient exceeds 0.4.
- The Human Development Index exceeds 0.5.

Q1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population	637,000	2005	{7}
Population growth rate per year (%)	1.30	2005	{CC}
Urban population (%)	31	2005	{CC}
Age-sex structure			
Sex ratio (F/1000M)	901	2005	{6}
Children <15 years (%)	33	2005	{CC}
Elderly ≥60 years (%)	7	2004	{1}
Highest in the world – Italy, Japan	26	2005	{7}
Highest in the Region – DPR Korea	12	2002	
Dependency ratio (%)	61	2005	{23}
Fertility			
Birth rate (per 1000 population)	20.0	2005	{6}
Lowest in the world – Germany, Ukraine	8.0	2004	{8}
Lowest in the Region – Thailand	12.7	2002	
Total fertility rate (TFR) (per woman)	2.5	2000	{CC}
Lowest in the world – Ukraine	1.1	2004	{9}
Lowest in the Region – Thailand	1.6	2000	
Contraceptive prevalence (%)	31	2000	{3}
Gross mortaility			
Crude death rate (per 1000 population)	7.0	2005	{6}
Lowest in the world – UAE	1.0	2004	{8}
Lowest in the Region – Maldives	3.0	2005	

Comparison of elderly population in the region and the world



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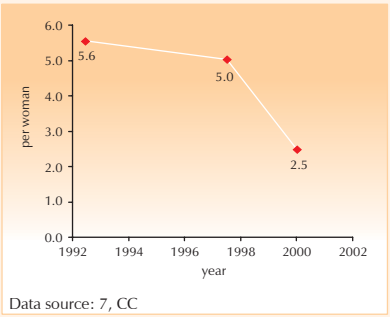
Total fertility rate



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Salient demographic features

- The country has a low death rate and birth rate.
- Adverse sex ratio.
- The population is predominantly young, with 33% of the population being less than 15 years old.

2 What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005	2015 (Target)
Poverty and hunger				
Population below minimum level of dietary energy consumption (%)	N/A	N/A	3.8 (2004)	1.9
Under-weight (<-2SD) children aged 6-59 months (%)	38 (1989)	19	N/A	19
Child mortality				
Infant mortality rate (per 1000 live births)	90	61	40	30
Under-five mortality rate (per 1000 live births)	123	84	61	41
One year olds immunized against measles (%)	84	85	90	>95
Maternal health				
Maternal mortality ratio (per 100,000 live births)	560	255	N/A	140
Deliveries attended by health staff (%)	15	24	32 (2003)	100
HIV/Malaria/Tuberculosis				
HIV prevalence – Total population (per 100,000 population)	0	5	12	
Malaria incidence (per 100,000 population at risk)	4190	873	366 (2004)	
Tuberculosis prevalence (per 100,000 population)	819	169	133 (2004)	
Water and sanitation				
Population with access to improved water source (%)				
Combined	45	78 (2003)	84	73
Rural	N/A	N/A	N/A	
Urban	N/A	N/A	N/A	
Population with access to improved sanitation (%)				
Combined	67	88 (2003)	93	83
Rural	N/A	N/A (2003)	92	
Urban	N/A	N/A (2003)	96	

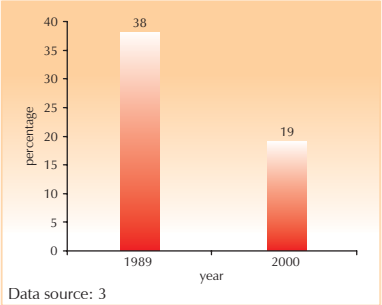
MDG progress

- The MDG indicators are potentially on track.

3 What are the major health problems?

Indicators	Latest available value	Year	Source
In children under-five years			
Low birth weight – Hospital births (%)	8.5	2005	{CC}
Lowest in the Region – Indonesia	6	2002	
Stunted children (%)	40	2000	{3}
Lowest in the world – Croatia	1	1998-2004	{8}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children (%)	19	2000	{3}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{8}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Diarrhoeas – incidence (per 1000 children <5 years)	396	2005	{6, CC}
Acute respiratory infections – incidence (per 1000 children <5 years)	249	2005	{6, CC}
Other diseases			
Tuberculosis prevalence (per 100,000 population)	169	2000	{C}
Malaria prevalence (per 100,000 population)	377	2005	{C}
Intestinal worm incidence (per 100,000 population)	3,094	2005	{C}
Conjunctivitis incidence (per 100,000 population)	6,363	2005	{C}
HIV prevalence (per 100,000 population)	12	2005	{C}
Diabetes prevalence (per 100,000 population)	148	2005	{C}
Cancer prevalence (per 100,000 population)	93	2005	{C}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	7.3	2002	{12}
Female	9.5	2002	{12}
As % of expected life at birth (ELB) lost			
Male	12.1	2002	{12}
Female	15.2	2002	{12}

Percentage of underweight children in 1989 and 2000



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Major health problems

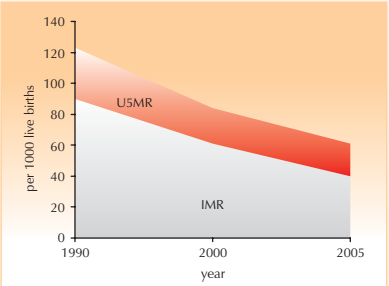
- Under-nutrition is common among children.
- Acute respiratory infection in winter and diarrhoeal diseases in summer top the list for infant/child morbidity.
- Available data for intestinal worms and conjunctivitis shows a high incidence.
- Tuberculosis and malaria are the other major health problems.

4

What is the mortality profile?

Indicators	Latest available value	Year	Source
Mortality rates			
Infant mortality rate (IMR) (per 1000 live births)	40	2005	{6}
Lowest in the Region – Sri Lanka	11	2003	
Under-five mortality rate (U5MR) (per 1000 live births)	61	2005	{6}
Lowest in the world – Iceland, Singapore	3	2004	{8}
Lowest in the Region – Maldives, Sri Lanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	255	2000	{6}
Lowest in the Region – Thailand	14	2003	
Age at death			
Expectation of life at birth (ELB) (years)	66	2000	{3}
Highest in the world – Japan	82	2004	{7}
Highest in the Region – Maldives, Sri Lanka	73	1996-2001	
Deaths under-five years (% of total deaths)	17	2005	{C}
Lowest in the Region – Thailand	4	2002	
Causes of death (percentage of total deaths)			
Three major causes of death (all ages) (as % of total deaths)			
Cardio-vascular diseases	19	2005	{6}
Cirrhosis of the liver	8	2005	{6}
COPD/Bronchial asthma	7	2005	{6}
Tuberculosis death rate (per 100,000 population)	3	2005	{6}
Tuberculosis deaths (% of total deaths)	3	2005	{CC}
Cerebrovascular disease deaths (% of total deaths)	7	2002	{22}

Infant and under-five mortality



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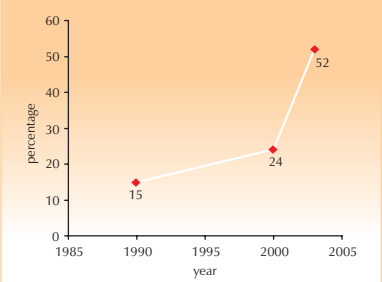
Mortality profile

- One out of nearly 16 children die before reaching the age of five years. Most of this mortality is in the first four weeks of life.
- Available data indicate cardiovascular diseases as the most common cause of death. Next is cirrhosis of the liver.

5 What resources are available for the health sector?

Indicators	Latest available value	Year	Source
Expenditure on health			
Percentage of GDP	3.1	2003	{13}
Highest in the world – USA	15.2	2003	{13}
Highest in the Region – Timor-Leste	9.6	2003	
Per capita (US$)	10	2003	{13}
Per capita (Intl.$)	59	2003	{13}
Highest in the world – USA (Intl.$)	5711	2003	{13}
Highest in the Region – Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2124	2001-2003	{3}
Services			
Primary health centres (Basic Health Units) (per 100,000 population)	27	2005	{CC}
Antenatal care coverage (4+ visit) (%)	70	2005	{6}
Deliveries by qualified attendant (%)	52	2005	{6}
Children immunized (%)			
BCG	99	2005	{26}
DPT-3	95	2005	{26}
Polio-3	95	2005	{26}
Measles	93	2005	{26}
Beds (per 10,000 population)	17	2005	{6}
Highest in the world – Monaco	196	1995	{9}
Highest in the Region – DPR Korea	132	2002	
Human resources			
Doctors of modern system (per 10,000 population)	2.0	2005	{6}
Highest in the world – Cuba	59	2002	{13}
Highest in the Region – DPR Korea	32	2003	
Nurses (per 10,000 population)	8.0	2005	{6}
Highest in the Region – DPR Korea	37	2003	
Midwives (per 10,000 population)	0.8	2004	{13}
Dentists (per 10,000 population)	0.2	2004	{13}
Pharmacists (per 10,000 population)	0.3	2004	{13}
Public and Environmental Health Workers (per 10,000 population)	0.3	2004	{13}
Community Health Workers (per 10,000 population)	2.0	2004	{13}
Lab Technicians (per 10,000 population)	0.6	2004	{13}
Other Health workers (per 10,000 population)	0.5	2004	{13}

Percentage of births attended by skilled health personnel



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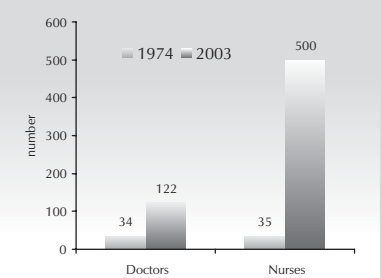
Number of doctors and nurses in 1974 and 2003



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Health resources

- Expenditure on health is 3.1% of GDP and 59 Intl$ per capita.
- Immunization coverage is high.
- Health resources in terms of doctors, nurses and beds are limited.

6 What is the system of health governance?

Organization

The Ministry of Health is guided by the recently established Bhutan Medical & Health Council, and is supported by:

- Policy and Planning Division (PPD),
- Quality Assurance and Standards Division (QASD), and
- Administrative and Finance Division (AFD)

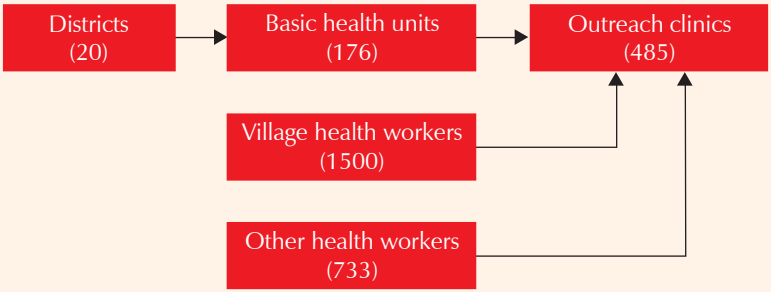
The Ministry has two departments – Department of Public Health and Department of Medical Services, each headed by a Director-General.

The Department of Public Health is supported by the Public Health Laboratory, Public Health Division, Research and Epidemiology Unit and the International Health Unit. The Department comprises four divisions, namely: Communicable Diseases, Non-communicable Diseases, Public Health Engineering, and the Information Communications Bureau.

The Department of Medical Services is supported by the Programmes/Projects Unit and the Health Equipment Repair and Maintenance (HERM) Unit, and comprises four Divisions, namely, Health Care and Diagnostic Services; Health Infrastructure and Maintenance; Drug Vaccines and Equipments; and Hospitals. The last also takes care of Traditional Medicine.

For delivery of health services, Bhutan has 20 districts, each headed by a District Supervisory Officer for primary health care and by a District Medical Officer for hospitals. As of 2005, there are 29 hospitals. In addition, 176 Basic Health Units and 485 Outreach Clinics spread over 201 geogs (blocks) provide primary health care services. Services are

free in the public sector, and there are no private practitioners. Outreach clinics provide health care in a cost-effective way to what has otherwise been an unreachable population.



Each Basic Health Unit is staffed by one Health Assistant, one Assistant Nurse Midwife and one Basic Health Worker. A BHU serves between 2000 to 5000 population. Nearly 1500 Village Health Workers are involved in improving basic hygiene and sanitation, immunization coverage, family planning, nutrition, control of diarrhoeal diseases, and prevention of sexually transmitted diseases including HIV/AIDS.

Private Sector

A few private pharmacies operate in the main towns.

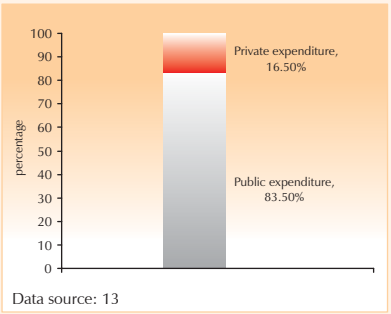
Traditional system

Bhutan gives as much importance to Traditional Medicine as to the modern system. Traditional medicine is well developed and regulated. The two systems co-exist and both are widely used by all population groups, sometimes concurrently, and with mutual referral. The government has plans to establish traditional medicine units in all 20 districts. All herbal products are now produced using good manufacturing practices.

Q7 Who pays for health care?

Indicators	Latest available value	Year	Source
Government expenditure on health			
Out of total health expenditure (%)	84	2003	{13}
Per capita (US$)	9	2003	{13}
Per capita (Intl.$)	49	2003	{13}
Highest in the world – Monaco (Intl.$)	3403	2003	{13}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (%)	16	2003	{13}
Per capita (US$)	2	2003	{C}
Per capita (Intl.$)	10	2003	{C}
Lowest in the Region – DPR Korea	0.4	2004	

Health expenditure



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Health expenditure

- Public health expenditure is less than 50 Intl.$ per capita.
- Bhutan provides free health services to the people.

8 What are the recent reforms and achievements of the health system?

Health sector reforms

- 'Bhutan 2020: A Vision for Peace, Prosperity and Happiness' sets priorities for all sectors including health.
- Bhutan is also promoting the vision of Gross National Happiness. Its four major pillars are (i) economic growth and development, (ii) preservation and promotion of cultural heritage, (iii) preservation and sustainable use of the environment, and (iv) good governance.
- The government and its institutions are making every effort to serve the people with integrity, accountability and transparency – thereby bringing good governance.
- There is a clear shift from expansion of services (quantity) to quality.
- Strategies have been evolved to reach the un-reached through decentralization of planning and management systems, and by intensifying human resource development for health and establishing a system of continuing education.

Achievements

- MDG indicators are potentially on track.
- High EPI coverage in children less than one year. Coverage of measles and rubella in children <15 years and women between 15-44 years is 98%.
- In 2003, 70% women visited the antenatal clinic four or more times.
- Safe water access increased to 84% in 2003 from 45% in 1990, and sanitation facilities are available to 93% of the population compared to 67% in 1990.

- Malaria cases have steeply declined. The slide positivity rate, which was 22% in 1985, has decreased to 5% in 2004.
- The cure rate for tuberculosis is at least 90% and the case-fatality rate has steadily declined.
- Leprosy is under control with a prevalence rate of 0.61 per 10,000.
- The essential drugs list has been compiled and is reviewed every two years by the National Drug Committee. Uninterrupted supply of vaccines and drugs has been realized with 90% of 20 vital drugs available on any particular day. Access to essential drugs is more than 90%. As many as 99% drugs are prescribed from the Essential Drugs List and 85% prescriptions are in generics.
- Solar disinfection of water is under trial.
- Tobacco consumption, both chewing and smoking, once very common, is now declining due to strong advocacy and health sector interventions. The government has banned the use and sale of tobacco at public places.

Legislation

- The 1992 Royal Decree mandated that every household maintains a latrine. As a result, sanitation coverage in 2005 was more than 90%.
- The Medicines Act was passed by the National Assembly in 2003. When fully implemented, this will regulate medicines, drugs, vaccines and other substances. A Drug Regulatory Authority has been setup under the Ministry of Health. A separate pharmacovigilance centre has been established for traditional medicines.
- While no administrative policies or legislative framework on water supply and related rights exist. The Bhutan Water Vision, Water Act and Water Policy are being formulated to create an enabling environment for the integrated and efficient management of water resources.

9 What are the constraints and challenges of the health system?

Financial constraints

- Health gets only 4% of the total government budget. Over 60% of health sector funding comes from donors and technical agencies.

Expertise and other physical constraints

- Two doctors and eight nurses are available per 10,000 population.
- Capacity for surgical and other specialized services is limited.
- One Health Assistant, one Assistant Nurse Midwife and one Basic Health Worker are posted in a Basic Health Unit.

Social constraints

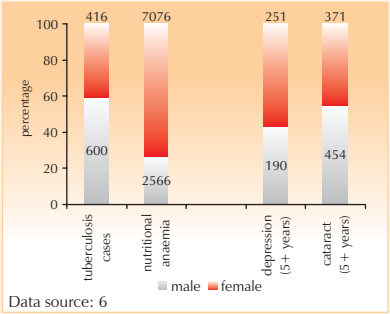
- Among children attending clinics (2005), 4.5% were underweight in Bumthang and 14.7% in Zhemgang. There were 3.3% overweight children in Gasa and 26.9% in Trongsa. Safe water supply is accessible to 95.1% of the population in Bumthang but to 56.9% in Dagana.

Indicators	Latest available value	Year	Source
Inequalities – Gender			
Expectation of life at birth F:M	1.05	2003	{19}
Female share in employment (%)	44	2003	{3}
Seats held in parliament – F (%)	8.7	2005	{17}
Ratio of girls to boys in primary schools (%)	95	2004	{3}

Health sector constraints

- Service delivery requires strengthening including referral for clinical support.

Percentage of disease distribution in male and female in 2005



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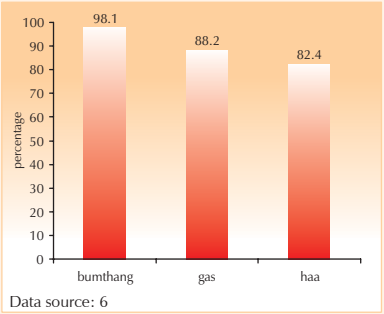
Percentage of latrine coverage in 2005



Data source: 6

- Limitation of infrastructure to deal with the emerging noncommunicable diseases, for which referral is done outside the country at a large cost to the health system.

Challenges

Health expenditure

Public expenditure on health is more than 80% of the total expenditure on health.

Nutrition

In children, both under-weight and obesity are common with nearly 19% children under five being under-weight and nearly 40% stunted. At the same time, nearly 18% children under five years were found to be over-weight in 2005 among those attending clinic.

Health information system

A standardized form for morbidity, mortality and other health data has been devised for reporting from the lowest to the national level. Data analysis and utilization at all levels require strengthening.

10 What does the country hope to achieve in the near future in health?

- Intensify the control of prevailing health problems and tackle emerging and re-emerging diseases.
- Intensify reproductive health services, sustain population planning activities, promote community-based rehabilitation and mental health services including innovative means to enhance mental well-being, and maintain a balance between primary, secondary and tertiary health care.
- Rationalize deployment of human resources based on workload analysis.
- Ensure timely supply of drugs and non-drug items to the health centres.
- Continue strengthing medical education for doctors, nurses, technicians, etc., with the focus on self-reliance and sustainability of health services.
- Develop guidelines for infection control and hospital waste management, and provide training to implement them.
- Reach the un-reached by:
  - focusing remote health centres and difficult-to-access geographical areas.
  - equitable distribution of services as well as facilities to all the health centres across the country.
  - fielding the best health workers in far flung areas for short duration on rotation.
- Introduce appropriate technology and building up human capital.
- Provide services with a human face.

- Now that the health coverage is adequate, focus on improving the quality of health care services.
- Set up standards of services and facilities, and develop the mechanism for their implementation.
- Strengthen health management information system and research, and their use in planning and monitoring.
- Develop appropriate secondary and tertiary health care services while maintaining the balance between primary, secondary and tertiary health care.
- Promote healthy lifestyles and address emerging noncommunicable diseases.
- A Health Trust Fund was established in 2000 to make health care services sustainable. The primary objective was to enhance accessibility and quality of health care by ensuring continued availability of vaccines and essential drugs. But much remains to be done to accumulate the required capital to invest in health infrastructure.

11 How is WHO collaborating with the country?

Policy development and planning

- Bhutan relies on WHO to develop policies and strategies that are technically sound. Continuity is the other comparative advantage.
- Assistance is provided in assessment of country needs, and how best WHO can help Bhutan in meeting its objectives.
- Help in decentralization for bringing services closer to the communities that are scattered and in remote areas.

Health system management

- The Royal Institute of Health Sciences got WHO's 50th Anniversary Award for Primary Health Care. With WHO support, this Institute is now affiliated to La Trobe University in Australia to train nurses at post-basic level. WHO's contribution to strengthen the Institute is significant.
- Assistance for developing health information system, particularly for streamlining ICD reporting, solar-powered links between basic health units and district hospitals for referral, and extension of tele-medicine project to communities.
- Technical and financial support for in-country training of mid-level managers in reproductive health. Medical officers are being trained to deal with obstetric-gynaecological problems in district hospitals.
- For essential drugs, WHO has been instrumental in revising and updating the national drug formulary and promoting rational use of drugs.

Promotion of healthy lifestyles and settings

- Provided advocacy material and formats for campaigns against substance abuse.
- Water quality guidelines have been provided to the government for developing standards of quality.

Prevention and control of priority diseases

- WHO provides technical support to strengthen the Malaria Control Programme, including training and establishing an entomology unit.
- The country is benefitting from WHO's Integrated Management of Childhood Illnesses (IMCI) strategy.
- For HIV/AIDS, WHO was the primary adviser in developing the country's first control programme. Support was provided for conducting knowledge, attitude, behaviour and practice (KABP) studies on sexual practices.
- Support has been provided to the Expanded Programme on Immunization (EPI) for strengthing the cold chain and for training of technicians.

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(26) South-East Asia Region EPI Fact Sheet 2005

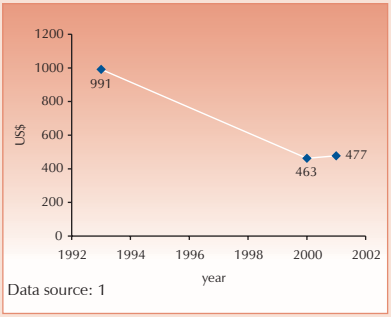
DPR Korea

(Democratic People's Republic of Korea)

Basic information	Latest available value	Year	Source
Total population (million)	23.61	2004	{CC}
Area (sq.km.)	120,538		{1}
Density of population (per sq.km.)	192	2003	{CC}
Regional divisions	9 provinces, 1 municipality and 210 counties		

Development	Latest available value	Year	Source
Gross Domestic Product per capita (US$)	477	2001	{1}
Adult literacy rate >15 years (%)	100	2003	{1}
Highest in the Region – DPR Korea	100	2003	
School enrolment (%)	100	2003	{1}
Highest in the Region – DPR Korea	100	2003	

Gross Domestic Product per capita



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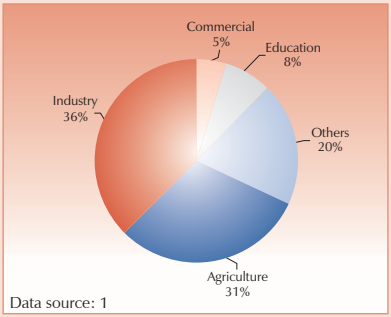
Salient basics

- Mountains account for nearly 80% of the country with the cultivated area comprising 17%.
- The country has faced many natural calamities.
- Adult literacy and school enrolment is the highest in the Region.

Q1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population (million)	23.61	2004	{CC}
Percentage of world's total	0.36	2003	{C}
Average annual growth rate (%)	0.71	2000-2003	{1}
Urban population (%)	60	2000-2003	{1}
Age-sex structure			
Sex ratio (F/1000M)	952	2003	{1}
Children <15 years (%)	26	2003	{1}
Elderly >60 years (%)	12	2002	{1}
Highest in the world – Italy, Japan	26	2005	{6}
Highest in the Region – DPR Korea	12	2002	
Dependency ratio (%)	47	2005	{6}
Fertility			
Birth rate (per 1000 population)	15.6	2003	{1}
Lowest in the world – Germany, Ukraine	8.0	2004	{7}
Lowest in the Region – Thailand	12.7	2002	
Total fertility rate (TFR) (per woman)	2.0	2003	{1}
Lowest in the world – Ukraine	1.1	2004	{8}
Lowest in the Region – Thailand	1.6	2000	
Contraceptive prevalence (%)	69	2002	{1}
Gross mortaility			
Crude death rate (per 1000 population)	9.1	2003	{1}
Lowest in the world – UAE	1.0	2004	{7}
Lowest in the Region – Maldives	3.0	2005	

Occupational distribution



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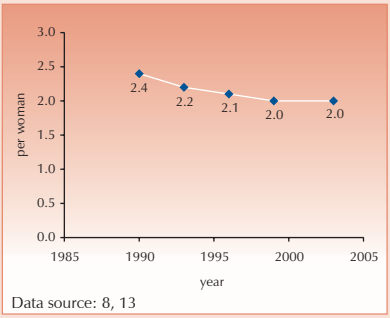
Total fertiliy rate



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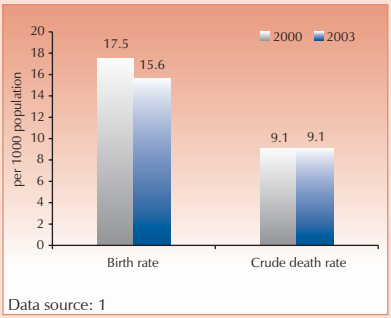
Birth rate and death rate



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Salient demographic features

- The sex ratio is 952 females per 1000 males.
- There is more population in urban areas than in rural areas.
- The birth rate is fairly low and population growth rate too is not high compared with some other countries of the Region.

2 What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005
Poverty and hunger			
Under-weight children of age <7 years (%)	N/A	N/A	20 (2002)
Child mortality			
Infant mortality rate (per 1000 live births)	19 (1995-96)	N/A	21 (2003)
Under-five mortality rate (per 1000 live births)	39 (1995-96)	N/A	46 (2003)
One year olds immunized against measles (%)	N/A	N/A	95.3 (2002)
Maternal health			
Maternal mortality ratio (per 100,000 live births)	105 (1996)	N/A	97 (2002)
Deliveries attended by health staff (%)	87 (1995-96)	97 (1999)	98 (2002)
Malaria/tuberculosis			
Malaria prevalence (per 100,000 population at risk)	N/A	N/A	258 (2003)
Tuberculosis prevalence (per 100,000 population)	424	220 (2001)	219 (2003)
Tuberculosis cases detected and cured under DOTS (%)	N/A	91	88 (2003)
Water and sanitation			
Population with access to improved water source (%)	N/A	N/A	96 (2002)
Population with adequate excreta disposal facility (%)	N/A	N/A	99 (2002)

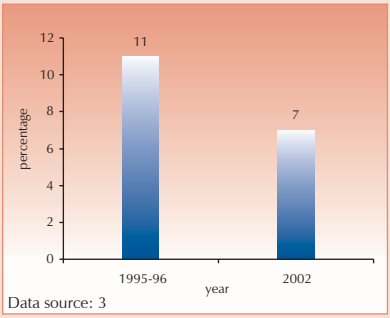
MDG progress

- Compared to some other countries in the Region, health-related MDG indicators are better, particularly in area like child mortality, maternal health and water and sanitation.
- Some data do not indicate improvements in trend.

Q 3 What are the major health problems?

Indicators	Latest available value	Year	Source
In children under-five years			
Low birth weight at delivery (%)	7	2002	{1}
Lowest in the Region – Indonesia	6	2002	
Stunted children (%)	37	1996-2004	{7}
Lowest in the world – Croatia	1	1998-2004	{7}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children of age <7 years (%)	20	2003	{1}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{7}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Diarrhoeas – reported cases incidence (per 1000 children <2 years)	151	2002	{1}
Acute respiratory infections – prevalence (per 1000 children <5 years)	12	1998-2004	{7}
Other diseases			
Anaemia in women with child <2 years (%)	34	2002	{1}
Tuberculosis prevalence (per 100,000 population)	219	2003	{CC}
Malaria prevalence (per 100,000 population)	258	2003	{1}
Cardio-vascular diseases prevalence (per 100,000 population)	172	2002	{1}
Diabetes prevalence (per 100,000 population)	7	2002	{1}
Cancer prevalence (per 100,000 population)	14	2002	{1}
Injury (per 100,000 population)	21	2002	{1}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	6.4	2002	{9}
Female	7.4	2002	{9}
As % of expected life at birth (ELB) lost			
Male	10.0	2002	{9}
Female	11.0	2002	{9}

Percentage of low birth weight



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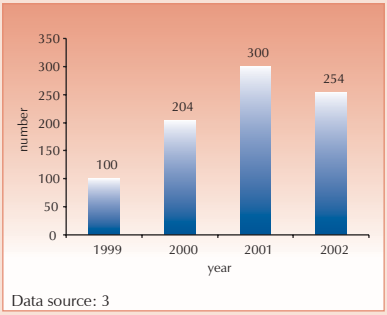
Distribution of malaria cases



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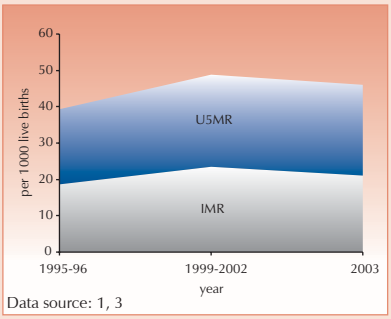
Major health problems

- Nearly one out of five children is under-weight.
- Anaemia in women is common.
- Smoking prevalence in male adults was 60% in 2002. The average age of initiation is 23 years and the average number of cigarettes smoked per day is 15.

Q 4 What is the mortality profile?

Indicators	Latest available value	Year	Source
Mortality rates			
Infant mortality rate (IMR) (per 1000 live births)	21	2003	{1}
Lowest in the Region – Sri Lanka	11	2003	
Under-five mortality rate (U5MR) (per 1000 live births)	46	2003	{1}
Lowest in the world – Iceland, Singapore	3	2004	{7}
Lowest in the Region – Maldives, Srilanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	97	2002	{1}
Lowest in the Region – Thailand	14	2003	
Age at death			
Avearge life expectancy (years)	68	2003	{1}
Highest in the world – Japan	82	2004	{10}
Highest in the Region – Maldives, Sri Lanka	73	1996-2003	
Deaths under-five years (% of of total deaths)	8	2003	{C}
Lowest in the Region – Thailand	4	2002	
Causes of death			
Three major causes of deaths (% of <5 years deaths)			
Preterm births	19	2000	{16}
Diarrhoeal diseases	19	2000	{16}
Pneumonia	15	2000	{16}
Three major causes of deaths – (% of total deaths)			
Ischaemic heart disease	13	2002	{16}
Lower respiratory infections	11	2002	{16}
Cerebrovascular disease	7	2002	{16}
Diabetes	3	2002	{16}
Tuberculosis death rate (per 100,000 population)	10	2002	{3}

Comparision of mortality rates



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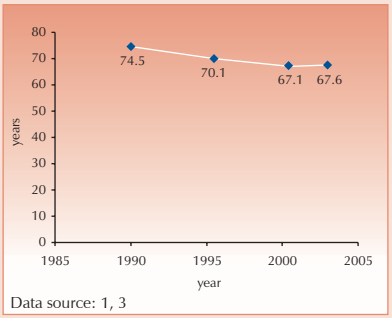
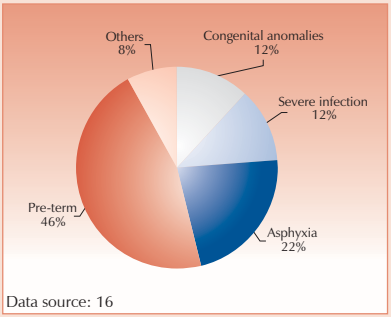
Expectation of life at birth



Data source: 1, 3

Causes of neonatal deaths in 2000



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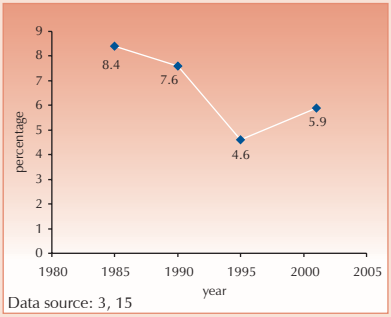
Mortality profile

- Child mortality is low compared with many other countries in the Region. Main causes are preterm births, diarrhoeal diseases and pneumonia.
- Old data reveal that chronic diseases are taking a heavy toll. In 1960s, the proportional mortality due to heart diseases was 7.1% of total deaths but increased to 18% in 1991. In 2002, ischaemic heart disease was responsible for 13% deaths and hypertensive heart disease another for 6%. Diabetes melitus was responsible for 3% deaths.

Q 5 What resources are available for the health sector?

Indicators	Latest available value	Year	Source
Expenditure on health			
Percentage of GDP	6.3	2004	{CC}
Highest in the world – USA	15.2	2003	{10}
Highest in the Region – Timor-Leste	9.6	2003	
Per capita (US$)	34	2004	{CC}
Per capita (Intl.$)	74	2003	{10}
Highest in the world – USA (Intl.$)	5711	2003	{10}
Highest in the Region – Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2160	2001-03	{12}
Services			
Antenatal care coverage (%)	98	2002	{1}
Women that have been immunized with TT during pregnancy (%)	84	1999-2002	{3}
Deliveries by qualified attendant (%)	98	2002	{1}
Children immunized (%)			
BCG	94	2005	{18}
DPT-3	79	2005	{18}
Polio-3	97	2005	{18}
Measles	96	2005	{18}
Beds (per 10,000 population)	132	2002	{1}
Highest in the world – Monaco	196	1995	{8}
Highest in the Region – DPR Korea	132	2002	
Human resources			
Doctors of modern system (per 10,000 population)	32.0	2003	{1}
Highest in the world – Cuba	59	2002	{10}
Highest in the Region – DPR Korea	32.0	2003	
Nurses (per 10,000 population)	37.0	2003	{1}
Highest in the Region – DPR Korea	37.0	2003	{10}
Midwives (per 10,000 population)	2.7	2004	{10}
Dentists (per 10,000 population)	3.7	2004	{10}
Pharmacists (per 10,000 population)	6.0	2004	{10}
Public and Environmental Health Workers (per 10,000 population)	1.2	2004	{10}
Lab Technicians (per 10,000 population)	0.4	2004	{10}
Other Health workers (per 10,000 population)	30.0	2004	{10}

Health expenditure out of national budget



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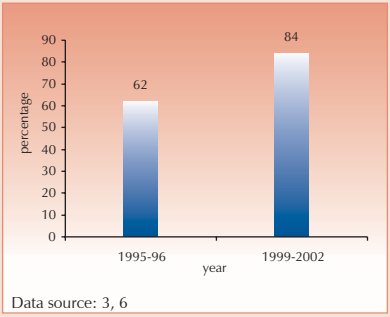
Percentage of TT coverage



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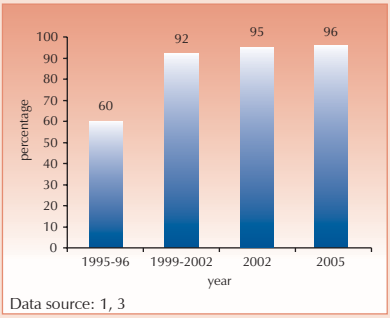
Percentage of measles vaccination coverage



Data source: 1, 3

Health resources

- Health expenditure as a percentage of the national budget is low at 74 Intl.$ per capita.
- Dietary energy consumption is 2160kcl/day/person.
- Antenatal coverage is 98% and measles vaccination coverage is 96%.
- The number of doctors and nurses available in DPR Korea per 10,000 population is the highest in the Region.

Q 6 What is the system of health governance?

Organization

Health is the domain of the Ministry of Public Health which has two departments:

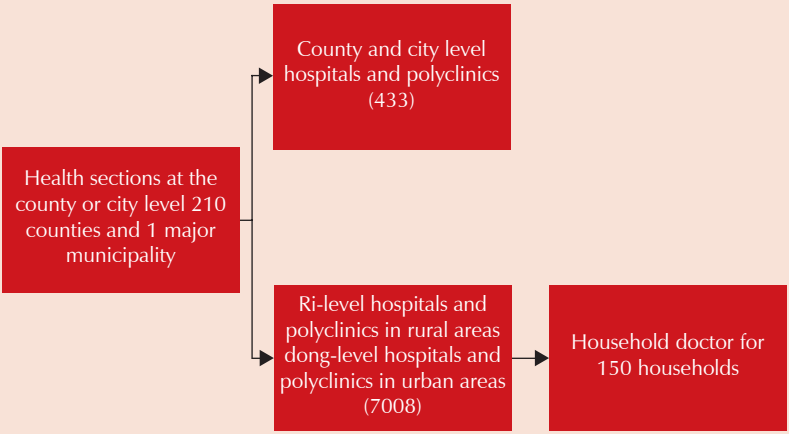
- Department of Health Planning
- Department of Communicable Diseases

Overall guidance is provided by the National Health Committee of the Cabinet.

The operational functions of the health infrastructure established at the central, provincial, county and sub-county (ri in rural and dong in urban areas) fall into two groups: those under the authority of the Ministry and those belonging to the local administrative bodies such as city and district People's Committees.

The Central government manages the Medical Information Centre for HIS through the Medical Science Academy. The main emphasis of this Centre is on: information on medical scientific technology; to build a database of various health information; and to develop the mechanism for exchange of information. Immunization is managed at the central level by the State Inspector. The Central Hygiene and Anti-epidemic Agency is responsible for control of communicable diseases. The Central government also manages various Central Hospitals including some specialized hospitals.

The health department at the province level comprises provincial people's hospitals, provincial specialized hospitals, and hygiene and anti-epidemic and drug stations. It also provides guidance to city and county level facilities falling within its jurisdiction.



The health sections at the county or city level are the actual agencies for providing health care through ri-level people's hospitals and polyclinics in the rural areas, and dong-level facilities in the urban areas. Hygiene, anti-epidemic and drug facilities are directly administered by the health section at the county or city-level as the case may be. The hospitals and clinics at ri and dong level are the facilities for first level of contact for primary health care while county and city level facilities provide specialized care such as paediatrics, surgery and gynaecology.

DPR Korea has a vast network of more than 800 general and specialized hospitals at the central, provincial and county levels, and 1000 hospitals and polyclinics at ri and dong levels with an estimated staff of around 300,000 in 2002. Note that these numbers include facilities at the provincial and central level, which are not included in the above diagram.

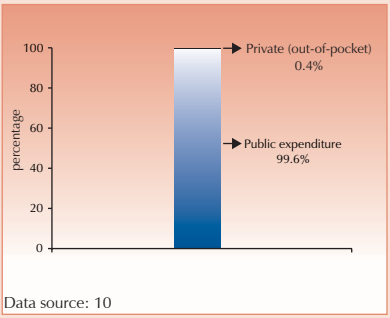
In addition, there are hundreds of industrial hospitals for factory workers and enterprises.

At the most peripheral level are the household doctors who are responsible for nearly 150 families in rural areas as well as in urban areas. They are also responsible for consultation on family planning and regular health care during pregnancy, as well as for immunizations.

Q 7 Who pays for health care?

Indicators	Latest available value	Year	Source
Government expediture on health			
Out of total health expenditure (%)	99.6	2004	{CC}
Per capita (US$)	34	2004	{CC}
Per capita (Intl.$)	68	2003	{10}
Highest in the world – Monaco (Intl.$)	3403	2003	{10}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (% of total expenditure on health)	0.4	2004	{CC}
Per capita (US$)	<1	2004	{C}
Per capita (Intl.$)	<1	2004	{C}
Lowest in the Region – DPR Korea	0.4	2004	

Health expenditure



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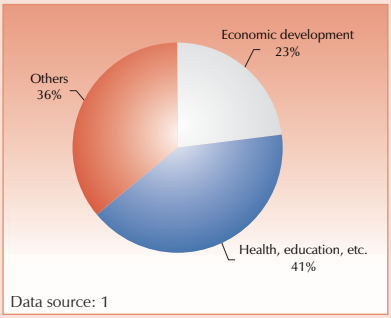
National budget 2003-04



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Health expenditure

- Almost the entire expenditure on health is by the government exchequer. Private expenditure is less than 1% and is out-of-pocket expenditure.
- Health services provide universal coverage.

8 What are the recent reforms and achievements of the health system?

Health sector reforms

- In 1999, the Ministry of Public Health developed a medium-term national health development programme for the 2000-2005. The main goal of this programme was to rehabilitate the health care facilities and reorient health workers to achieve the level of health status existing before 1990.
- Institutions are being set up for research on hygiene and communicable diseases.
- In recognition of the importance of injection safety, the government has modernized and expanded the production of syringes for single use.

Achievements

- The nutrition status of the people has improved over the last few years.
- After peaking in the 1990s, the incidence of malaria has substantially declined.
- The authorities took the SARS outbreak very seriously and imposed strict quarantine regulations and other control measures that helped to control the outbreak.
- Major improvements have taken place over the last few years for immunization and polio eradication because of the high priority given to these programmes by the government.
- Under a government decision 'To stop smoking in the whole nation', awareness campaigns were lunched on a large scale. As result, health awareness about the risk of smoking has increased.

- A computer network has been set up for national drug management and is being expanded to lower units for rational management and use of medicines.
- The only endemic disease of significance is goitre due to iodine deficiency in the mountainous regions of south Pyongan and Zagang Provinces. To counter this, the government has set up a system of supplying seaweeds, which are available in plenty and can reduce iodine deficiency. In addition, there is a well-organized surveillance system, and treatment facilities have been established in affect4ed areas. .
- The 4th DOTS expansion program in 2003 covered 94.1% of the national population. This now covers the whole nation. The sputum conversion and treatment cure rates are high at 90% and 87% respectively, in line with the global targets.
- In 2003, 71% of the population was able to access essential drugs. If a 5 km radius is considered, access reaches 99%. About 40 essential drugs recommended by WHO are widely used at the primary care level.
- The paediatric hospitals or wards and maternity hospitals or wards at all levels have been reconstructed and enlarged, and mobile service teams are organized for the difficult-to-reach areas and disaster regions.

Legislation

- In June 2002, the Law of Disability Protection was adopted in the Supreme People's Assembly.
- The production, storage and use of medicines is controlled by the Law of Medicines Management.

9 What are the constraints and challenges of the health system?

Financial constraints

- The economy was reduced to half its size in the 1990s. There was little investment in the health sector and there was an acute shortage of medical and hospital supplies.
- Health expenditure was 5.9% of the national budget in the year 2001 compared with 7.6% in 1990 and 8.4% in 1985. The running cost of extensive health care infrastructure is high and can not be met with the current level of expenditure.
- Investment in material and human support is required to strengthen national capacity for good manufacturing practices and quality control in order to produce essential drugs, vaccines and medical supplies.

Expertise and other physical constraints

- Essential expertise such as for handling complications of pregnancy and childbirth, treatment of severe infection in children, injuries and acute surgery, are sometimes compromised.Hospital infection control procedures require strengthening.

Social constraints

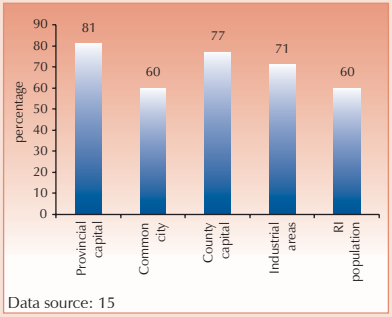
Indicators	Latest available value	Year	Source
Inequalities – Gender			
Average life expectancy F:M	1.12	2003	{1}
Seats held in parliament – F (%)	20.1	2003	{1}
Ratio of girls to boys in primary schools (%)	100	2003	{1}
Inequalities – Spatial			
Breastfeeding rate of children (%)			
Urban	95	2002	{1}
Rural	95	2002	{1}

Life expectancy of females is 71.4 years whereas of males it is 63.5 years.

Health sector constraints

- There is a need to review the health care system within the context of the economic situation to make it more efficient.
- The local production of essential medicines has declined and there is insufficient budget or foreign currency for import of drugs. A chronic shortage of medicines and supplies at all levels is an ongoing constraint affecting the quality of care.

Percentage of population access to essential drugs in 2003



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- Access to the first level of health services at ri-level is high but referral services have become increasingly difficult due to transport bottlenecks and limited services.

Challenges

Nutrition

- There is a dramatic improvement in the nutritional situation since 1998, but severe malnourishment is still high. Greater attention to maternal nutrition status is needed.

Health services

- Health sector reforms can be undertaken only after a comprehensive situation analysis. Establishing this baseline in itself is a challenge.
- Effective supervision, accurate reporting, and improved management and distribution of medicines and laboratory consumables require strenghtening.
- HIV/AIDS is not a problem in DPR Korea but the risk factors such as injection practices and quality of blood transfusion services have to be taken into account.
- Diarrhoeal diseases increased due to the run-down water and sanitation system while acute respiratory infection was compounded by malnutrition. Together, there are responsible for the majority of childhood illnesses and deaths.

Training of staff

- Training of health personnel needs to be strengthened including training in health management, rational use of drugs and medical supplies.

Q 10 What does the country hope to achieve in the near future in health?

- The priority in the public policy for health is the protection and promotion of health of people. Examples are the public advocacy and support for public health, conducting public health work as a mass movement and not allowing economic development at the cost of health of the people.
- The government hopes to achieve a free but perfect medical care system for all by increasing expenditure on public health, improving skills to manage the health institutions effectively, tapping the health resources to the fullest extent, and by raising the national interest in health work.
- To narrow the regional differentials in primary health care, the government plans to be more rational in providing health facilities according to the density and physical features of different areas.
- A greaten effort may be put into scientific developments such as bioengineering and telemedicine, which may improve the health administration, diagnosis and treatment.
- The government proposes to step up activities against common diseases and injuries, as well as to strengthen the provision of resources and research on primary health care.
- The government will direct its main efforts to environmental protection, to improving population nutrition and to reduce the health risk factors through social movement.
- The government hopes to further strengthen the international cooperation as well as exchanges within the country.

Q 11 How is WHO collaborating with the country?

Policy development and planning

- WHO is the lead international health agency in the country and works in close collaboration with other UN agencies, international organizations and NGOs. It is gradually expanding its presence in the country. It contributed necessary material and financial support to improve the health system that deteriorated in the 1990s due to natural calamities.

Health systems management

- In collaboration with other international agencies, WHO developed and updated the list of essential medicines. The objective was to promote their optimal provision and adequate use.
- A large number of health personnel have awarded WHO fellowships. These are mainly funded from WHO's regular budget.
- A broad range of in-country training activities for health personnel are being supported every year, with particular attention to topics of public health significance such as control of communicable diseases, improving maternal and child health, and control of noncommunicable diseases.
- Standardized kits of equipment and consumables for support of community ri-clinics and county hospitals have been developed.
- WHO emergency health kits were provided with support from the government of Japan for helping the injured in the big train blast in 2004. The seriousness and needs of those injured were assessed, techincal advice provided. WHO worked with local

authorities to prevent outbreak of infectious diseases and to establish a proper surveillance system in the aftermath of the disaster.

- The WHO Collaborating Centres for Gerontology and for Primary Health Care, were established to set up the Research Centre for Traditional Medicines.

Promotion of healthy lifestyles and settings

- The National Blood Centre in Pyongyang and the Provincial Blood Centre in Hamhung were strenghtened with the introduction of disposable blood bags to ensure access to safe blood.
- WHO is also supporting activities such as development of nursing and midwifery medical education and tobacco control. These activities are supported on a small scale but are considered strategically important.

Prevention and control of priority diseases

- The introduction and the gradual expansion of tuberculosis control using the DOTS strategy was supported. The DOTS programme reached 100% geographical coverage by the end of 2003.
- WHO has been the lead international agency supporting the national malaria programme with anti-malarial drugs, microscopes, and other laboratory equipment, impregnated bed-nets, and technical assistance and training. Malaria incidence has substantially declined partly due to these efforts.
- The establishment of the National Polio Laboratory and polio eradication activities, including acute flaccid paralysis (AFP) surveillance throughout the country was supported.
- Regular immunization and cold chain was strenghtened in cooperation with UNICEF.
- Technical and material support for SARS prevention was provided in 2003.

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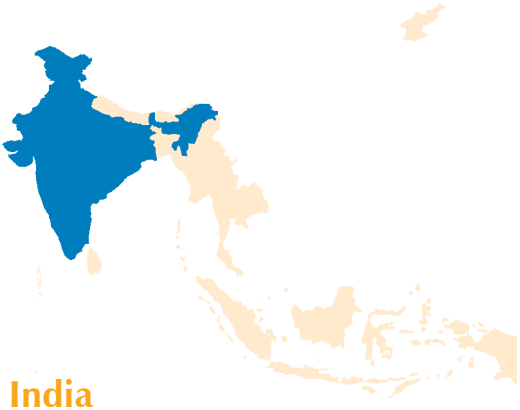
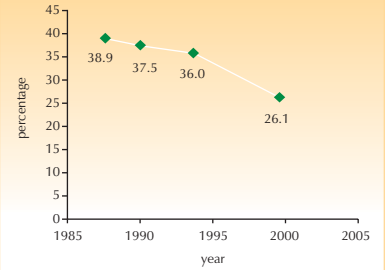


India

Basic information	Latest available value	Year	Source
Total population (million)	1,097	2005	{1}
Area (sq.km.)	3,287,263		{1}
Area as percent of world's total	2.4		{2}
Density of population (per sq.km.)	334	2005	{1}
Administrative divisions	29 states, 6 union territories and 593 districts	2001	

Development	Latest available value	Year	Source
Gross national income(GNI) per capita (US$)	720	2005	{3}
Highest in the world (GNI) – Norway	59,590	2005	{3}
Highest in the Region – Thailand (GNI)	2,750	2005	{3}
Population below poverty line – Intl.$1 per day (%)	34.7	1999-2000	{3}
Lowest in the Region – Maldives	<1	2004	
Population below national poverty line (%)	28.6	1999-2000	{4}
Lowest in the Region – Maldives	8	2004	
Adult literacy rate >15 years (%)	61	2004	{5}
Highest in the Region – DPR Korea	100	2003	
Gross enrolment ratio – primary (%)	95	2002-2003	{4}
Highest in the Region – DPR Korea	100	2003	
Human Development Index	0.611	2004	{5}
Highest in the Region – Thailand	0.784	2004	
Human Poverty Index (%)	31.3	2006	{5}
Lowest in the Region – Thailand	9.3	2006	
Gender-Related Development Index	0.591	2006	{5}
Highest in the Region – Thailand	0.781	2006	

Percentage of population below national poverty line



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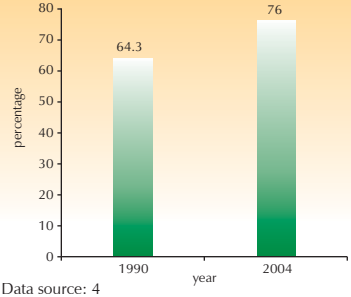
Literacy rate (15-24 years) in 1990 and 2004



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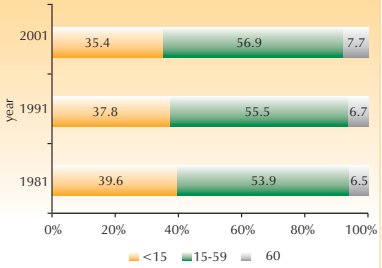
Salient basics

- India is a pluralistic, multi-lingual and multi-ethnic nation.
- It is home to one-sixth of the world's population occupying less than 3% of the world's area.
- It has shown rapid development in recent years.
- The population below the poverty line is declining rapidly.

Q1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population (million)	1,097	2005	{1}
Percent of world's total	16.8		{C}
Average annual Population growth rate (%)	1.95	2001	{1}
Urban population (%)	28	2001	{1}
Age-sex structure			
Sex ratio (F/1000M)	933	2001	{1}
Children <15 years (%)	35	2001	{1}
Elderly >60 years (%)	8	2001	{1}
Highest in the world – Italy, Japan	26	2005	{6}
Highest in the Region – DPR Korea	12	2002	
Dependency ratio (%)	59	2003	{25}
Fertility			
Birth rate (per 1000 population)	23.8	2005	{7}
Lowest in the world – Germany, Ukraine	8.0	2004	{8}
Lowest in the Region – Thailand	12.7	2002	
Total fertility rate (TFR) (per woman)	2.7	2005-2006	{13}
Lowest in the world – Ukraine	1.1	2004	{10}
Lowest in the Region – Thailand	1.6	2000	
Contraceptive prevalence (%)	56.3	2005-2006	{13}
Gross mortaility			
Crude death rate (per 1000 population)	7.6	2005	{7}
Lowest in the world – UAE	1.0	2004	{8}
Lowest in the Region – Maldives	3.0	2005	

Percentage of population in different age groups



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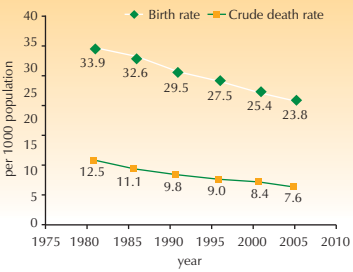
Birth rate and crude death rate



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Salient demographic features

- The percentage of children under 15 is slowly declining.
- Sex ratio.
- Both the birth rate and death rate are showing a steady decline.

Q 2 What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005	2015 (Target)
Poverty and hunger				
Population below minimum level of dietary energy consumption (%)	39 (87-88)	26 (1999)	N/A	19
Under-weight (<-2SD) children (%)	55	47 (1999)	46 (2005-06)	27
Child mortality				
Infant mortality rate (per 1000 live births)	80	68	57 (2005-06)	27
Under-five mortality rate (per 1000 live births)	125 (1988-92)	98 (1998-2002)	85	41
One-year-olds immunized against measles (%)	42 (1992-93)	51 (1998-99)	59 (2005-06)	>90
Maternal health				
Maternal mortality ratio (per 100,000 live births)	437 (1991)	407 (1998)	301 (2001-03)	109
Safe deliveries (%)	34 (1992-93)	42 (1998-99)	54 (2002-03)	84
HIV/Malaria/Tuberculosis				
HIV prevalence in 15-49 years (per 100,000 population)	N/A	750	910	
Malaria incidence-reported (per 100,000 population at risk)	244	201	169	
Tuberculosis prevalence (per 100,000 population)	570	N/A	312 (2004)	
Water and sanitation				
Population with access to improved water source (%)				
Combined	62 (1991)	85 (2001)	N/A	81
Rural	56 (1991)	87 (2001)	90	80
Urban	81 (1991)	82 (2001)	N/A	94
Population with access to improved sanitation (%)				
Combined	37	52	N/A	68
Rural	9 (1991)	22 (2001)	32	72
Urban	47 (1991)	63 (2001)	N/A	72

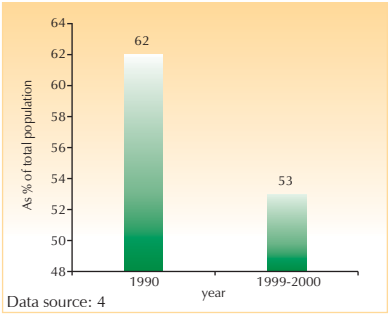
MDG progress

- MDG targets for reducing hunger, improving access to water and sanitation are likely to be achieved or are already achieved.
- Progress on some other health indicators (child and maternal mortality) may not be on track.

Q 3 What are the major health problems?

Indicators	Latest available value	Year	Source
In children under-five years			
Low birth weight (%)	23	1998-1999	{13}
Lowest in the Region – Indonesia	6	2002	
Stunted children – <3 years (%)	38	2005-2006	{13}
Lowest in the world – Croatia	1	1998-2004	{8}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children – <3 years (%)	46	2005-2006	{13}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{8}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Diarrhoeas – incidence (per 1000 total population)	9	2005	{12}
Acute respiratory infections – incidence (per 1000 total population)	22	2005	{12}
Anaemia prevalence (6-35 months) (per 1000 total population)	792	2005-2006	{13}
Other diseases			
Tuberculosis prevalence (pulmonary) – reported cases (per 100,000 population)	79	2005	{1}
Malaria incidence (per 100,000 population)	29	2005	{12}
Filaria prevalence (per 100,000 population at risk)	239	2004-2005	{1}
Leprosy (per 100,000 adult population)	13	2004-2005	{12}
HIV prevalence (per 100,000 total population) in 15-49 years	910	2005	{11}
Cardio-vascular diseases prevalence (per 100,000 population)	3422	2005	{15}
Diabetes prevalence (per 100,000 population)	2792	2005	{15}
Cancer prevalence (per 100,000 population)	19	2004	{15}
Blindness prevalence (per 100,000 population)	1120	2004	{15}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	6.8	2002	{16}
Female	8.4	2002	{16}
As % of expected life at birth (ELB) lost			
Male	11.3	2002	{16}
Female	13.6	2002	{16}

Percentage of undernourished people in 1990 and 1999-00



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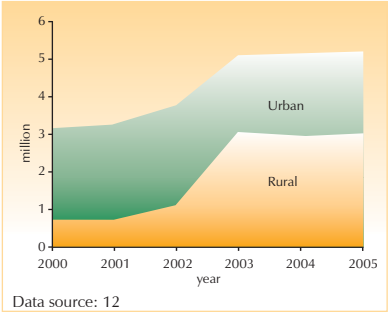
HIV cases in urban and rural areas



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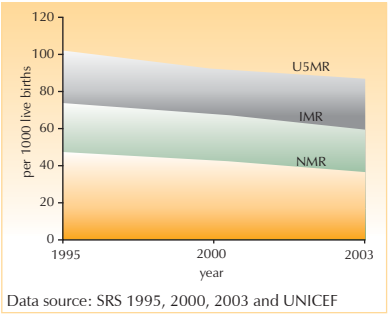
Major health problems

- Nutritional problem among mothers and children.
- Nearly one-eighth of equivalent life years continue to be lost due to various diseases.
- Double burden of communicable and noncommunicable diseases.

Q 4 What is the mortality profile?

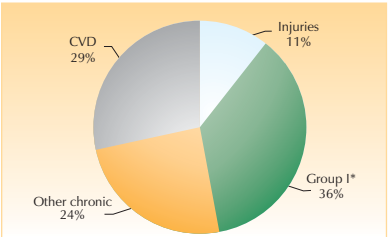
Indicators	Latest available value	Year	Source
Mortality rates			
Neonatal mortality rate (NMR) (per 1000 live births)	37	2002	{9}
Lowest in the world – Singapore	1	2000	{10}
Lowest in the Region – Maldives	8	2005	
Infant mortality rate (IMR) (per 1000 live births)	57	2005-2006	{13}
Lowest in the Region – Sri Lanka	11	2003	
Under-five mortality rate (U5MR) (per 1000 live births)	85	1998-2002	{4}
Lowest in the world – Iceland, Singapore	3	2004	{8}
Lowest in the Region – Maldives, Srilanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	301	2001-2003	{7}
Lowest in the Region – Thailand	14	2003	
Age at death			
Expectation of life at birth (ELB) (years)	65	2001-2006	{1}
Highest in the world – Japan	82	2004	{18}
Highest in the Region – Maldives, Sri Lanka	73	1996-2001	
Deaths under-five years (% of of total deaths)	24	2003	{C}
Lowest in the Region – Thailand	4	2002	
Six major communicable diseases (% of deaths due to communicable diseases)			
Tuberculosis	41	2005	{1}
Acute respiratory infections	22	2005	{1}
Pneumonia	20	2005	{1}
Acute diarrohea	12	2005	{1}
Viral hepatitis	4	2005	{1}
Enteric fever	2	2005	{1}
Tuberculosis death rate (per 100,000 population)	33	2003	{4}
Malaria death rate (per 100,000 population)	0.09	2004	{4}
Cancer death rate (per 100,000 population)	49	2004	{15}
Cardio-vascular diseases death rate (per 100,000 population)	188	2005	{15}
Non-communicable diseases deaths (% of total deaths)	53	2005	{19}
Tuberculosis deaths (% of total deaths)	4	2002	{24}
Cerebrovascular disease deaths (% of total deaths)	7	2002	{24}

Comparision of mortality rates



Data source: SRS 1995, 2000, 2003 and UNICEF

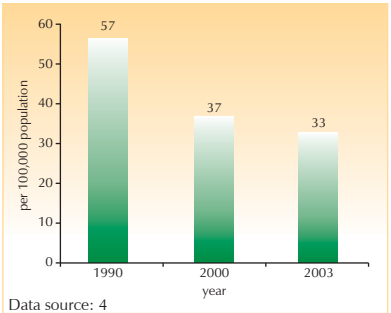
Causes of death – 2005



*Group 1 – Communicable diseases, perinatal and maternal conditions, and nutritional deficiencies

Data source: 19

Tuberculosis death rate



Data source: 4

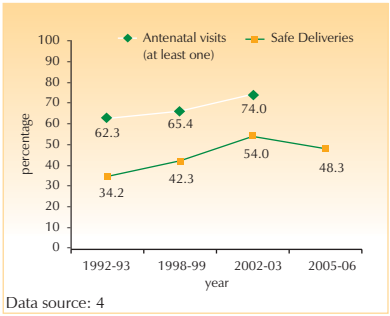
Mortality profile

- Nearly one-fourth of deaths occur in those less than 5 years but child mortality has shown a decline in recent years.
- Infectious diseases continue to be a burden while chronic diseases have shown an increase – both in terms of prevalence as well as in terms of mortality.

Q 5 What resources are available for the health sector?

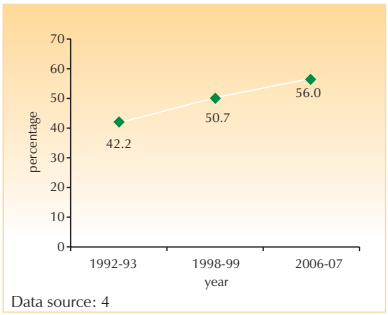
Indicators	Latest available value	Year	Source
Expenditure on health			
Percent of GDP	4.8	2003	{18}
Highest in the world – USA	15.2	2003	{18}
Highest in the Region – Timor-Leste	9.6	2003	
Per capita (US$)	27	2003	{18}
Per capita (Intl.$)	82	2003	{18}
Highest in the world – USA (Intl.$)	5711	2003	{18}
Highest in the Region – Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2440	2001-2003	{20}
Services			
Primary health centres (per 100,000 rural population)	3.2	1999-2000	{C}
Antenatal care coverage (at least three visits) (%)	51	2005-2006	{13}
Deliveries by qualified attendant (%)	48	2005-2006	{13}
Pregnant women immunized with TT (%)	71	2002-2003	{4}
Children immunized (%)			
BCG	73	2005	{26}
DPT-3	64	2005	{26}
Polio-3	70	2005	{26}
Measles	56	2005	{26}
Beds (per 10,000 population)	9.0	2005	{1}
Highest in the world – Monaco	196	1995	{10}
Highest in the Region – DPR Korea	132	2002	
Human resources			
Doctors of modern system (per 10,000 population)	7	2005	{1}
Highest in the world – Cuba	59	2002	{18}
Highest in the Region – DPR Korea	32	2003	
Doctors of alternative systems (per 10,000 population)	7	2004-2005	{1}
Nurses (per 10,000 population)	8.0	2004	{1}
Highest in the Region – DPR Korea	37	2003	
Midwives (per 10,000 population)	4.7	2004	{18}
Dentists (per 10,000 population)	0.6	2004	{18}
Pharmacists (per 10,000 population)	5.6	2004	{18}
Public and Environmental Health Workers (per 10,000 population)	3.8	2004	{18}
Community Health Workers (per 10,000 population)	0.5	2004	{18}
Lab Technicians (per 10,000 population)	0.2	2004	{18}
Other Health workers (per 10,000 population)	7.6	2004	{18}

Percentage of ANC coverage and safe deliveries



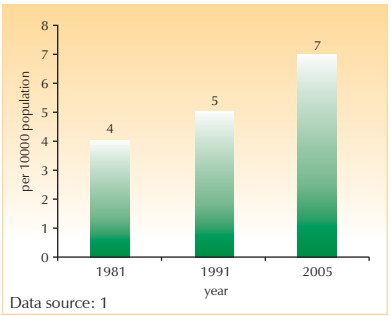
Data source: 4

Percentage of measles vaccination coverage



Data source: 4

Doctors of modern system



Data source: 1

Health resources

- Expenditure on health is nearly 5% of GDP.
- There is a steep increase in antenatal care and safe deliveries.
- Human resources for health care are improving.
- Alternative systems such as Ayurveda and Homeopathy are being encouraged.

Q 6 What is the system of health governance?

Organization of health services

The Ministry of Health & Family Welfare comprises two departments:

- Department of Health & Family Welfare
- Department of AYUSH (Ayurvedic, Unani, Siddha and Homeopathic Medicines)

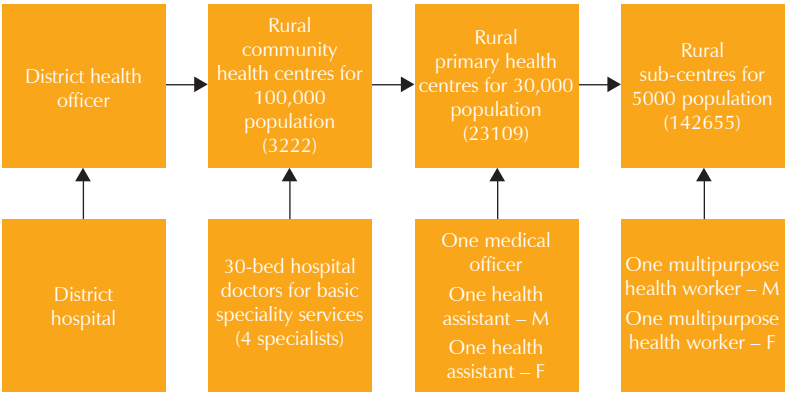
The Department of Health & Family Welfare gets technical support from the Directorate-General of Health Services. The other department does not have such a wing.

These three departments oversee health at the central level. Otherwise the state governments have jurisdiction over public health, sanitation and hospitals, while the Central Government is responsible for medical education. Food, drug administration and family walfare are in the concurrent list.

Each state has a Ministry of Health & Family Welfare but the organization differs from state to state. Generally, there is a Directorate of Health Services providing technical assistance. Some states have a separate Directorate of Medical Education & Research, and some have a separate Director of Ayurveda or Director of Homeopathy.

District health officers have varying designations in different states. But (s)he is responsible for all government activities for health and family welfare.

In rural areas, the Community Health Centre (CHC) serves a population of nearly 100,000 and provides speciality services in general medicine, paediatrics, surgery and obstetrics & gynaecology. There is a shortfall in the number of CHCs. A Primary Health Centre (PHC) covers



nearly 30,000 population (20,000 in hilly, desert or difficult terrain) and is staffed by a medical officer, and one male and one female health assistant besides supporting staff. A sub-centre caters to nearly 5,000 population (3000 in difficult terrain) and is manned by one male and one female multipurpose health worker. These workers and health assistants have different designations in different states.

Urban areas have nearly 3,500 urban centres and 12,000 hospitals in the puplic sector but some medical care needs are met by private sector hospitals, nursing homes and private practitioners. District hospitals and medical college hospitals provide referral care.

A large number of health facilities are run by industry for their employees. For example, the railways have their own network of hospitals. Workers in the organized sector are covered by Employees State Insurance, which also run their own hospitals and dispensaries. Central government staff are covered under the Central Government Health Service Scheme. In addition, perhaps more than 7000 voluntary organizations work in the area of health care.

While drugs and pharmaceuticals are regulated by the Ministry of Chemicals and Fertilizers, the standards for new drugs are enforced by the Central Drug Standard Control Organization under the Ministry of Health & Family Welfare.

Integrated child development services

- The Integrated Child Development Services (ICDS) programme is implemented by the Department of Women and Child Development of the Ministry of Human Resource Development with the Aanganwadi (child centre) as the focal point for its activities. Each Aanganwadi covers a population of 1000 and all states are covered although in some states the coverage is <70%. Nonetheless, the number of beneficiaries exceed 20 million children between 0-6 years from vulnerable groups, mostly by way of nutritional supplementation.

Health information system

- The census held during the first year of each decade provides basic demographic information . The 2001 census collected information on various disabilities.
- Registration of births and deaths is legally obligatory but the Civil Registration System does not catch a large percentage of deaths and births varying from state to state.
- The Sample Registration System covers a statistically representative sample across the country and provides state-specific estimates of birth rate, age-specific fertility rate, births attended by various functionaries, age-specific death rates, infant mortality rate, etc.
- National Sample Surveys are regularly conducted for social, economic and agricultural sectors and occasionally collect information on specific aspects of health such as morbidity and disability.
- Periodic all-India surveys such as National Family Health Surveys conducted by the Ministry of Health & Family Welfare provide useful information.
- National programmes such as on tuberculosis, malaria, and AIDS have a system reaching the family level to collect information pertaining to their area of activity.

- The Integrated Disease Surveillance Project (IDSP) was launched in 2004 with 800 satellite-based STIs in the country for health information and surveillance. This is institutionilized in the National Institute of Communicable Diseases (NICD), Delhi, with functional linkages with the Central Bureau of Health Intelligence (CBHI).

Private sector

- The private sector plays an important role in urban areas for curative care. A large number of private practitioners exist and there are many large and small hospitals and nursing homes. In addition, there are a large number of voluntary organizations providing health care.
- The pharmaceutical sector is almost exclusively in the private sector and drug stores are mostly run by pharmacy-qualified individuals.

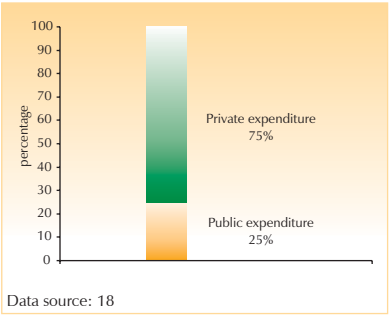
Traditional system

- Ayurveda, Unani, Siddha and Homeopathy (AYUSH) systems are encouraged and run parallelly. Many PHCs have one doctor of one of these systems, in addition to an allopath doctor. AYUSH doctors are professionally trained and are qualified practitioners.
- More than 700,000 practitioners of these systems were registered in 2005. More than 50% of these are Ayurvedic practitioners.
- In addition, there are a large number of less qualified practitioners and traditional birth attendants.

Q7 Who pays for health care?

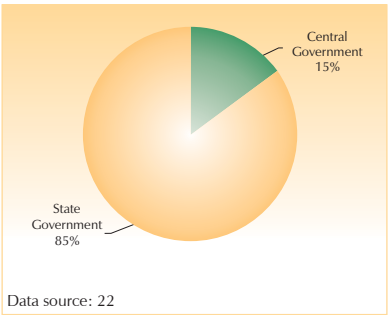
Indicators	Latest available value	Year	Source
Government expenditure on health			
Out of total health expenditure (%)	25	2003	{18}
Per capita (US$)	7	2003	{18}
Per capita (Intl.$)	20	2003	{18}
Highest in the world – Monaco (Intl.$)	3403	2003	{18}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (%	75	2003	{18}
Per capita (US$)	20	2003	{C}
Per capita (Intl.$)	62	2003	{C}
Lowest in the Region – DPR Korea	0.4	2004	
Out-of-pocket expenditure (% of private expenditure on health)	97	2003	{18}
Per capita (US$)	20	2003	{C}
Per capita (Intl.$)	60	2003	{C}
Lowest in the world – Tuvalu	13	2003	{18}
Lowest in the Region – Timor-Leste	26	2004	
Insurance coverage			
Social security expenditure on health out of general government expenditure on health (%)	4.2	2003	{18}

Health expenditure in 2003



Data source: 18

Public health expenditure



Data source: 22

Health expenditure

- Per capita public health expenditure is 20 Intl$.
- Nearly 75% of the expenditure is met by private sources, 70% is borne by the households and 6% by the corporate sector and external sources.
- Social security mostly covers the organized sectors.
- Over 40% of hospitalized Indians borrow heavily or sell assets to cover expenses.

8 What are the recent reforms and achievements of the health system?

Health sector reforms

- A series of policies have been formulated since 2000. Important among them are the revised National Health Policy (2002), National Policy on Indian System of Medicine and Homeopathy (2002), and National Pharmaceutical Policy (2002).
- To accelerate the decline in infant mortality, essential newborn care has been included in the reproductive and child health (RCH) programme. Training for this has been conducted, and operational research in this area is encouraged.
- Instead of the campaign mode, routine immunization is being strengthened. A project on Hepatitis B immunization and injection safely has also been initiated.
- The government recently launched a National Rural Health Mission to improve the availability of and access to quality health care by the people, especially those residing in rural areas, the poor, women and children. Under this scheme, each village will have a female Accredited Social Health Activist (ASHA) who will be the interface between the community and the public health system.
- The Ministry has constituted a task force under the Chairmanship of the Director-General of Health Services to review and streamline the health information with feedback mechanism keeping in view the objectives of the National Rural Health Mission.
- Recognizing the need for evidence-based information about various initiatives undertaken and their assessment as part of the health sector reform process, the Ministry of Health & Family

Welfare, in collaboration with the WHO Country Office, India, has undertaken a review and documentation of health sector reform initiatives.

- The government has created and is maintaining a web-based Health Sector Policy Reform Option Database (HS-PROD), which shares information about Indian good practices, innovations and reform know-how to tackle common management problems in the health services. This website has already documented more than 200 reform options.
- In 2004, the Central Bureau of Health Intelligence, the agency for health information in India, made recommendations in consultation with the States and Union Territories for improving and strengthening health information in the country.

Achievements

- The literacy rate has shown a marked improvement and gender-disparity has narrowed.
- There has been a decline in the under-five mortality rate but neonatal mortality continues to be high.
- Guinea-worm disease has been eradicated and leprosy has been virtually eliminated at the national level.
- The Public Health Foundation of India was recently launched to focus on management of health rather than of disease, and try to fill-up the gap in human resources appropiate for the health problems India is facing. This Foundation is an example of public-private partnership.

Legislation

- The government has notified The Cigarettes and Other Tobacco Products Act 2003 (No, 34 of 2003) that prohibits advertisement of tobacco products, and regulates their trade, commerce, production, supply and distribution.

9 What are the constraints and challenges of the health system?

Financial constraints

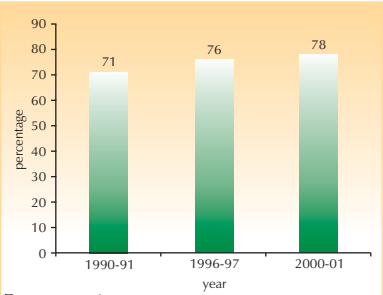
- Health expenditure at nearly 5% of GDP is not enough considering the health problems. Health is largely financed by the private sector. Per capita public health expenditure is nearly 20 Intl.$ per annum.
- Shortage of funds has been primarily responsible for the non-availability of facilities per norms; provision of inputs such as drugs, equipment and facilities remain inadequate.
- Social security expenditure on health is 4% of the general government health expenditure.

Social constraints

- Gender disparities are high in almost every segment of the health sector. In addition, there are spatial disparities such as between urban and rural areas, and across states.

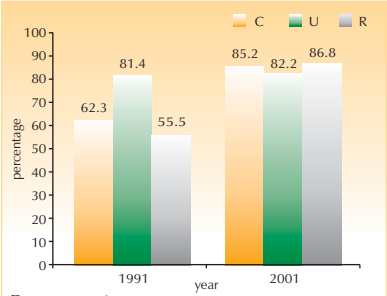
Indicators	Latest available value	Year	Source
Inequalities – Gender			
Expectation of life at birth F:M	1.03	2001-2006	{1}
Female share in employment (non-agricultural sector) %			
Urban	17	1999-2000	{4}
Rural	15	1999-2000	{4}
Seats held in parliament – F (%)	9.2	2004	{4}
Ratio of girls to boys in primary schools (%)	78	2000-2001	{4}
Inequalities – Spatial			
Iron deficiency anaemia in children <3 years			
Arunachal Pradesh	86	1998-1999	{4}
Kerala	43	1998-1999	{4}
Water supply (%)			
Urban	82	2001	{4}
Rural	87	2001	{4}

Ratio of girls to boys in primary school



Data source: 4

Percentage of water coverage by rural and urban area



Data source: 4

Population below poverty line (%)					
	1973-74	1987-88	1990	1993-94	1999-2000
Rural	56.4	39.1	–	37.3	27.1
Urban	49.0	38.2	–	32.4	23.6
Combined	54.9	38.9	37.4	36.0	26.1

Data source: 1,4

Health sector constraints

- Due to inadequate budget and pressure to achieve targets, several states upgraded two-roomed sub-centres to full PHCs. With limited space for laboratory, examination, pharmacy, etc., many are not fully functional. Location also is a problem. Nearly 25% of the people in Madhya Pradesh and Orissa could not access medical care for locational reasons.
- There is sub optimal utilization of health centres due to inadequate human resources, lack of drugs and laboratory.
- There is ineffective implementation of rules of conduct and less than optimal work culture.

- Because of the above mentioned constraints, even poor people are forced to seek medical care from the private sector.

Challenges

Nutrition

- Besides low birthweight, under-weight and stunted children, NFHS-II revealed that nearly three-quarters children of between 6 to 35 months have some level of anaemia. Anaemia is common in women also. Thus, improving nutrition seems like the biggest task that may need inter-sectoral coordination and political commitment.

Child mortality

- Because of a considerable shortfall in the trend of reduced child mortality for achieving the MDG target, there is an urgent need for new approach and priorities in the overall strategy to achieve this MDG target. Intrapartum care, diarrhoeal diseases and acute respiratory infections need attention.

Lifestyle

- Tobacco abuse among the young is on the increase. Physical activity is declining as affluence growing and fast food becomes more prevalent in the urban areas. Changing lifestyle may also be causing an increase in cases of coronary heart disease. Ageing of the population in any case is giving rise to a steep increase in the incidence of many chronic diseases, some of which are triggered by an adverse life style.

Situation of implementation

- A large number of legal provisions exist in the health sector such as on smoking, drug abuse, waste disposal and protection of the environment but the level of enforcement is poor. There is a need to strengthen the implementation mechanism.

- A large number of well-conceptualized schemes and programmes are launched but the actual achievements remain limited due to gaps in implementation.

Human resources

- The number of doctors, nurses and other paramedical workers per 1000 population is low. There is a shortfall, particularly in rural areas and for deprived segments of the population.

What does the country hope to achieve in the near future in health?

The National Health Policy (2002) envisages the following:

- Increase public expenditure on health from 0.9% to 2.0% of GDP by 2010.
- Levy user charges for certain secondary and tertiary level public health services for those who can afford to pay.
- Mandatory 2-year rural posting before awarding the graduate medical degree.
- Promoting public health discipline.
- Appreciating the role of the private sector in health.
- Fully operationalizing National Disease Surveillance Network.

In addition, the following objectives are proposed to be achieved in the near future.

- Eradicating polio and yaws.
- Elimination of leprosy and kala-azar.
- Elimination of lymphatic filariasis.
- Achieve zero level of growth of HIV/AIDS.
- Reduce mortality due to tuberculosis and malaria.
- Increase utilization of public health facilities from less than 20% to more than 75%.
- Establish an integrated system of surveillance.
- Attain 100% coverage for six vaccine-preventable diseases.

Set up a world class Central Drug Standard Control Organization (CDSCO) by modernising, restructuring and reforming the existing system, and establish an effective network of such agencies in the states.

Highlights of other proposals are as follows:

- Integration of fertility regulation and maternal and child health with reproductive health programmes for both men and women.
- All-round improvement in access by the community to various commonly-required services. Provision of greater access to outreach services, particularly for the vulnerable groups such as urban-slum dwellers and the tribal population.
- Training, research and development of alternative systems of medicine covered by the acronym AYUSH.
- An ambitious National Rural Health Mission is expected to provide the necessary push to the health services all across the country, particularly in rural areas.

The Tenth Five-Year Plan focussed on the following:

- Reorganisation and restructuring of the existing health infrastructure at primary, secondary and tertiary levels so that they attain the capacity to render health care services to the population with appropriate referral linkages with each other.
- Appropriate delegation of power to Panchayati Raj institutions (local self government) to ensure local accountability of public health care providers.
- Integration of national disease control programmes including supplies monitoring, Information, Education and Communication (IEC), training, and administrative arrangements.
- Development of an appropriate two-way referral system using information technology and exploration of alternative systems of health care financing.
- Clear definition of the role of the various stakeholders – the government, private and voluntary sectors.
- Launching of the National Rural Health Mission and the Public Health Foundation of India in 2005 have raised hopes of increased focus on preventive and promotive strategies that the people need. Steps such as these may produce dividends sooner for the deprived segments of population.
- The Planning Commission is finalizing the Eleventh Five Year Plan which will be implemented from April 2007.

Q11 How is WHO collaborating with the country?

Policy development and planning

- Reproductive and Child Health (RCH) – Phase II was developed using a sector-wide approach promoted by WHO. Financially, this phase is being supported by the Department of International Development (DFID) and the World Bank. WHO actively participated in the design of RCH-Phase II.
- Assistance was provided in polio surveillance and supplemental immunization activities, convening an international expert group to advise on strategies, coordinate funding requirements and mobilize international support.
- Medical education is being supported through fellowships and also technical assistance to encourage linkages with public health programmes.
- Assistance was provided to set-up the National Commission on Macro-economics and Health, which recently (2005) submitted its report.

Health system management

- The state drug authorities are being supported by strengthening and improving diagnostic skills for better regulation, developing training capacities, developing protocols for blood banks, strengthening drug testing laboratories, and developing and disseminating material for consumer information.
- Some states were supported to generate data necessary for planning, control of noncommunicable diseases through risk-factor surveillance.

- Under the Making Pregnancy Safer Programme, assistance was provided in developing guidelines for antenatal care and skilled attendance at birth.

Promotion of healthy lifestyle and settings

- To improve the quality of drinking water, 10 states are being supported for strengthening water quality laboratories and rural sanitation programmes.

Prevention and control of priority diseases

- Recent examples of technical support provided are:
  - Assistance for a quick response to emergencies caused by epidemics (SARS, avain flu) and natural disasters (Gujarat earthquake, Orissa cyclone and Tsunami disaster).
  - Collaboration in Revised National Tuberculosis Control Programme (RNTCP), polio eradication, guinea-worm eradication, National Cancer Control Programme, and scaling-up of Anti-retroviral Treatment (ART) for people living with HIV/AIDS.
  - Tobacco-free Initiative.
  - Mobilization of additional resources and better utilization of resources.
- Technical support was provided for HIV prevention to Avahan Initiative of the Bill and Melinda Gates Foundation as well as in the implementation of UN project called Coordinated HIV/AIDS. Response through Capacity Building and Awareness (CHARCA).
- Actively participating in the maternal and child health group and disaster management group, and chairing the work on malaria and tuberculosis.
- Providing technical assistance in planning and organizing HIV surveillance and in HIV load estimation.
- Techinical support continued to be provided for the expansion of hepatitis B vaccination in the country.

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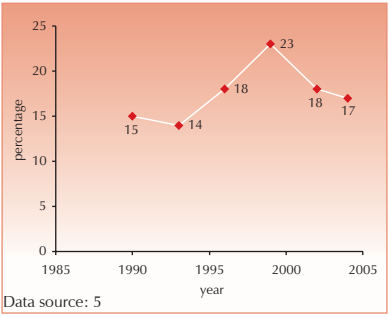
Indonesia

Basic information	Latest available value	Year	Source
Total population (million)	222.05	2006	{6}
Area (sq.km.)	1,860,360		{1}
Area as percent of world's total	1.37		{2}
Density of population (per sq.km.)	116	2005	{1}
Administrative divisions	33 provinces, 349 regencies and 91 municipalities		

Development	Latest available value	Year	Source
Gross national income (GNI) per capita (US$)	1280	2005	{4}
Highest in the world (GNI) – Norway	59590	2005	{4}
Highest in the Region – Thailand (GNI)	2750	2005	{4}
Population below poverty line – Intl.$1 per day (%)	7	2002	{5}
Lowest in the Region – Maldives	<1	2004	
Population below national poverty line (%)	17	2004	{6}
Lowest in the Region – Maldives	8	2004	
Adult literacy rate >15 years (%)	91	2004	{7}
Highest in the Region – DPR Korea	100	2003	
Net enrolment ratio – primary (%)	93	2002	{5}
Highest in the Region – DPR Korea	100	2003	
Human Development Index	0.711	2004	{8}
Highest in the Region – Thailand	0.784	2004	
Human Poverty Index (%)	18.5	2006	{8}
Lowest in the Region – Thailand	9.3	2006	
Gender-Related Development Index	0.704	2006	{8}
Highest in the Region – Thailand	0.781	2006	

Percentage of population below national poverty line



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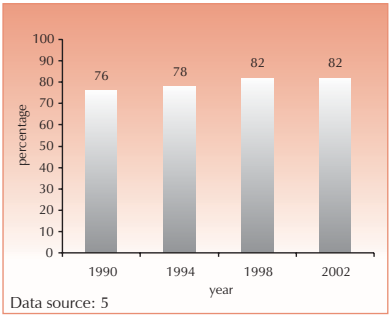
Percentage of pupils starting grade 1 who reached grade 5



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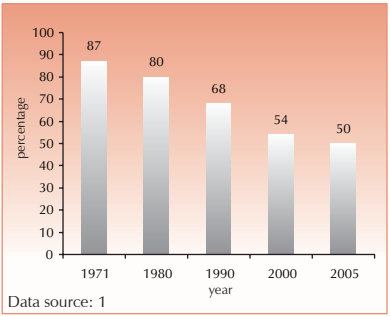
Salient basics

- Indonesia is a densely populated country with nearly 17000 islands.
- Percentage of the population below the poverty line increased in the 1990s. It has shown a decline recently.
- The Human Development Index at more than 0.7 is better than in many other countries of the Region.

Q1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population (million)	222.05	2006	{6}
Percentage of world's total	3.4	2006	{C}
Population growth rate per year (%)	1.34	2000-2005	{1}
Urban population (%)	48	2005	{1}
Age-sex structure			
Sex ratio (F/1000M)	994	2000	{9}
Children <15 years (%)	28	2005	{1}
Elderly >60 years (%)	7.5	2005	{1}
Highest in the world – Italy, Japan	26	2005	{10}
Highest in the Region – DPR Korea	12	2002	
Dependency ratio (<15 and 65+) (%)	50	2005	{1}
Fertility			
Birth rate (per 1000 population)	19.5	2005	{6}
Lowest in the world – Germany, Ukraine	8.0	2004	{11}
Lowest in the Region – Thailand	12.7	2002	
Total fertility rate (TFR) (per woman)	2.2	2005	{6}
Lowest in the world – Ukraine	1.1	2004	{12}
Lowest in the Region – Thailand	1.6	2000	
Contraceptive prevalence among married women of age 15-49 years – ever used (%)	74	2005	{1}
Gross mortality			
Crude death rate (per 1000 population)	6.6	2005	{6}
Lowest in the world – UAE	1.0	2004	{11}
Lowest in the Region – Maldives	3.0	2005	

Dependency ratio



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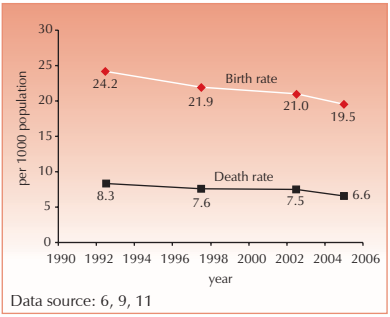
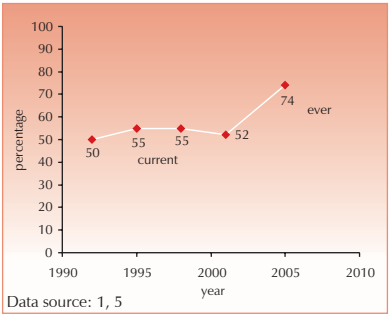
Birth and death rates



Data source: 6, 9, 11

Contraceptive prevalence in 15-49 years women



Data source: 1, 5

Salient demographic features

- Indonesia is more urbanized than some other countries in the Region.
- The dependency ratio is showing a steep decline as the population <15 years declined from 44% in 1971 to 28% in 2005. There is bulging population in the age-group 15-64 years.
- The net reproduction rate was close to 1 (1.03) in 2005.

2 What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005	2015 (Target)
Poverty and hunger				
Population below minimum level of dietary energy consumption (%)	70	74 (1999)	65 (2002)	35
Under-weight (<-2SD) children (%)	38 (1989)	25	28 (2003)	18
Child mortality				
Infant mortality rate (per 1000 live births)	68 (1989)	46 (1997)	32	23
Under-five mortality rate (per 1000 live births)	97 (1989)	58 (1997)	46 (2002)	32
One year olds immunized against measles (%)	45 (1991)	60 (1997)	77 (2004)	>90
Maternal health				
Maternal mortality ratio (per 100,000 live births)	390 (1992)	307 (2002)	N/A	≈100
Deliveries attended by health staff (%)	41 (1992)	67	72 (2004)	85
HIV/Malaria/Tuberculosis				
HIV prevalence in 15-49 years (per 100,000 population)	N/A	93	149	
Malaria incidence (per 100,000 population at risk)	N/A	850 (2001)	N/A	
Tuberculosis prevalence (per 100,000 population)	443	786 (1998)	262	
Tuberculosis detection rate under DOTS (%)	N/A	19	29 (2002)	
Water and sanitation				
Population with access to improved water source (%)				
Combined	69	76	88	86
Rural	N/A	N/A	87 (2004)	
Urban	N/A	N/A	89 (2004)	
Population with access to improved sanitation (%)				
Combined	54	66	78 (2004)	77
Rural	19 (1992)	52	69 (2004)	
Urban	58 (1992)	77	90 (2004)	

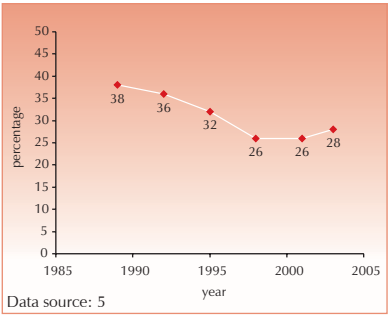
MDG progress

- There is good progress towards achieving targets for reducing child mortality.
- Progress to reduce malnutrition and in controlling priority diseases is slower.
- Targets for improved water and sanitation may have been achieved.

Q 3 What are the major health problems?

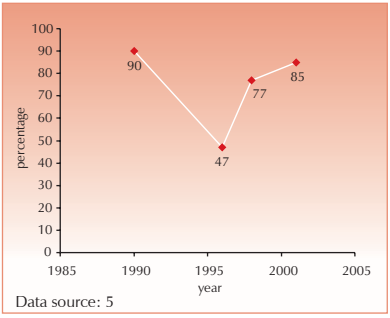
Indicators	Latest available value	Year	Source
In children under-five years			
Stunted children (%)	42.2	2002	{26}
Lowest in the world – Croatia	1	1998-2004	{11}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children (%)	28	2003	{6}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{11}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Diarrhoeas – reported cases incidence (per 1000 children <5 years)	110	2002-2003	{14}
Acute Respiratory Infection – reported cases incidence (per 1000 children <5 years)	76	2002-2003	{14}
Other diseases			
Tuberculosis prevalence (per 100,000 population)	262	2005	{CC}
Malaria prevalence (per 100,000 population)	850	2001	{5}
HIV prevalence (per 100,000 population) 15-49 years	149	2005	{C}
Diabetes prevalence (per 100,000 population)	3883	2000	{15}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	7.5	2002	{16}
Female	9.1	2002	{16}
As % of expected life at birth (ELB) lost			
Male	11.5	2002	{16}
Female	13.4	2002	{16}

Percentage of under-weight children <5 years



Data source: 5

Tuberculosis treatment success rate



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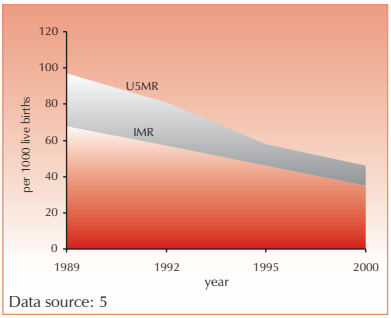
Major health problems

- Under-nutrition in children remians high.
- Infectious diseases exacerbated by malnutrition particularly tuberculosis and malaria – continue to be major problems.
- Noncommunicable diseases are emerging as a major threat.

Q 4 What is the mortality profile?

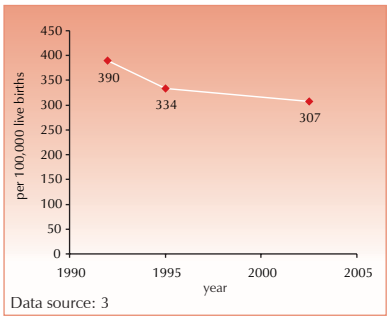
Indicators	Latest available value	Year	Source
Mortality rates			
Neonatal mortality rate (NMR) (per 1000 live births)	20	2000	{CC}
Lowest in the world – Singapore	1	2000	{12}
Lowest in the Region – Maldives	8	2005	
Infant mortality rate (IMR) (per 1000 live births)	32	2005	{6}
Lowest in the Region – Sri Lanka	11	2003	
Under-five mortality rate (U5MR) (per 1000 live births)	46	2002	{5}
Lowest in the world – Iceland, Singapore	3	2004	{11}
Lowest in the Region – Maldives, Sri Lanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	307	2000	{5}
Lowest in the Region – Thailand	14	2003	
Age at death			
Expectation of life at birth (ELB) (years)	69	2005	{6}
Highest in the world – Japan	82	2004	{10}
Highest in the Region – Maldives, Sri Lanka	73	1996-2001	
Deaths under-five years (% of total deaths)	13	2002	{C}
Lowest in the Region – Thailand	4	2002	
Causes of death (percentage of total deaths)			
Three major causes of child deaths (% of <5 years deaths)			
Diarrhoeal diseases	18	2000-2003	{17}
Pneumonia	14	2000-2003	{17}
Preterm birth	12	2000-2003	{17}
Three major causes of deaths (All ages) (% of total deaths)			
Ischaemic health disease	14	2002	{17}
Tuberculosis	8	2002	{17}
Cerebrovascular disease	8	2002	{17}
Tuberculosis death rate (per 100,000 population)	68	1998	{5}
Cardio-vascular diseases death rate – age standardized (per 100,000 population)	361	2002	{12}
Cancer death rate – age standardized (per 100,000 population)	132	2002	{12}
Malaria death rate (per 100,000 population)			
Male	11	2000	{5}
Female	8	2000	{5}

Infant and under-five mortality rates



Data source: 5

Maternal mortality ratio



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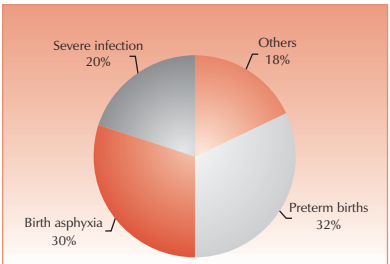
Causes of neonatal deaths



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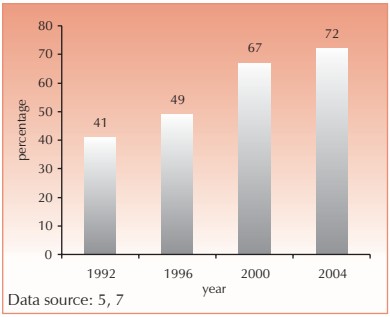
Mortality profile

- Neonatal mortality is higher than in some other countries in the Region although mortality in children 1-4 years old has substantially declined.
- Major causes of death in <5 years old are diarrhoeal diseases, pneumonia, and preterm births that account for nearly one-third of the neonatal deaths.
- In the total population (all ages), ischaemic heart disease is responsible for the death of one out of every seven Indonesians.

Q 5 What resources are available for the health sector?

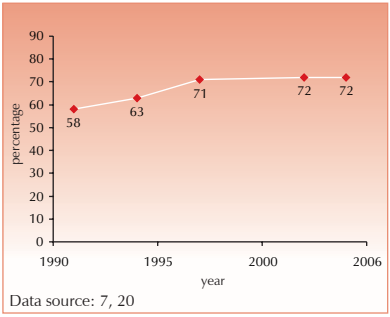
Indicators	Latest available value	Year	Source
Expenditure on health			
Percentage of GDP	2.8	2003	{CC}
Highest in the world – USA	15.2	2003	{18}
Highest in the Region – Timor-Leste	9.6	2003	
Per capita (US$)	33	2003	{CC}
Per capita (Intl.$)	118	2003	{CC}
Highest in the world – USA (Intl.$)	5711	2003	{18}
Highest in the Region – Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2880	2001-2003	{19}
Services			
Health centres (per 100,000 population)	3.6	1998	{3}
Antenatal care coverage (at least four visits) (%)	81		{CC}
Deliveries by qualified attendant (%)	72	2004	{7}
Children immunized (%)			
BCG	82	2005	{27}
DPT-3	70	2005	{27}
Polio-3	70	2005	{27}
Measles	72	2005	{27}
Beds (per 10,000 population)	6.0	2002	{3}
Highest in the world – Monaco	196	1995	{12}
Highest in the Region – DPR Korea	132.0	2002	
Human resources			
Doctors of modern system (per 10,000 population)	2.0	2001	{CC}
Highest in the world – Cuba	59	2002	{15}
Highest in the Region – DPR Korea	32	2003	
Nurses (per 10,000 population)	13.0	2001	{CC}
Highest in the Region – DPR Korea	37	2003	
Midwives (per 10,000 population)	2.0	2004	{15}
Dentists (per 10,000 population)	0.3	2004	{15}
Pharmacists (per 10,000 population)	0.3	2004	{15}
Public and Environmental Health Workers (per 10,000 population)	0.3	2004	{15}
Community Health Workers (per 10,000 population)	3.6	2004	{15}
Lab Technicians (per 10,000 population)	2.5	2004	{15}
Other Health workers (per 10,000 population)	1.0	2004	{15}

Percentage of births by qualified attendant



Data source: 5, 7

Percentage of measles vaccination coverage 12-23 months



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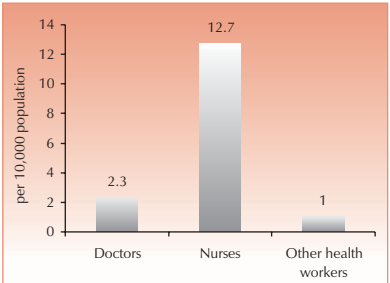
Human resources per 10,000 population



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Health resources

- At 3.1% of GDP, the public expenditure on health is low.
- The situation with regard to human resources for health (doctors, nurses and health workers) is still not adequate compared to some other countries in the Region.

Q 6 What is the system of health governance?

Organization

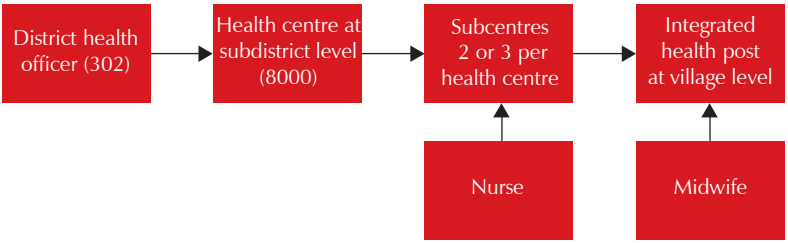
The Ministry of Health has the following offices:

- Secretary-General
- Inspector-General
- Directorate-General of Community Health
- Directorate-General of Medical Care
- Directorate-General of Communicable Disease Control and Environmental Health
- Directorate-General of Pharmacy and Medical Devices Services
- National Institute of Health Research and Development
- National Institute of Health, Human Resource Development and Empowerment

Indonesia has 33 provinces, each with a Provincial Health Office, and 349 districts, each having a District Health Officer, looks after government hospitals in the district.

For basic health services, each sub-district (3625 in 2003) has at least one Primary Health Centre where one or more doctors, a public health nurse, midwives and other paramedics are posted. There were nearly 8000 health centres in 2000 – one per 26,000 population. Each centre is supported by two or three sub-centres, generally headed by a nurse.

The Integrated Health Post provides preventive and promotive services at the village level. A midwife is deployed at this level. This post covers 50-100 households.



In addition, there are hospitals including teaching hospitals at the apex level, central hospitals, provincial hospitals and district hospitals. In 2002, there were 1215 hospitals.

Private sector

Other than the public health system, there are numerous private clinics and hospitals providing health care.

Traditional system

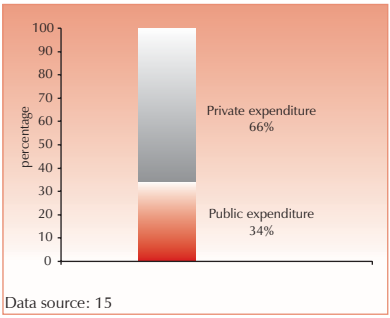
Traditional medicine practitioners include herbalists, cicumcisers, bonesetters, etc. A Ministry of Health in the 1990s survey reported 281,492 practitioners of traditional mediine. Of these, 122,944 are traditional birth attendants. They attend more than 50% of the births in the country.

The Centre for Traditional Medicine Research provides training in traditional medicine. There are separate training programmes for traditional practitioners of accupressure for primary health care.

Q 7 Who pays for health care?

Indicators	Latest available value	Year	Source
Government expediture on health			
Out of total health expenditure (%)	34	2004	{CC}
Per capita (US$)	11	2003	{18}
Per capita (Intl.$)	40	2003	{18}
Highest in the world – Monaco (Intl.$)	3403	2003	{18}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (% of total expenditure on health)	66	2003	{CC}
Per capita (US$)	21	2003	{C}
Per capita (Intl.$)	78	2003	C
Lowest in the Region – DPR Korea	0.4	2004	
Out-of-pocket expenditure (% of private expenditure on health)	74	2003	{18}
Per capita (US$)	16	2003	{C}
Per capita (Intl.$)	58	2003	{C}
Lowest in the world – Tuvalu	13	2003	{18}
Lowest in the Region – Timor-leste	26	2004	
Insurance coverage			
Social security expenditure on health out of general government expenditure on health (%)	10	2003	{18}

Health expenditure



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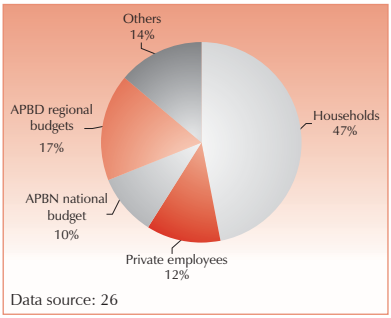
Health expenditure by category, 2002



Data source: 26

Health expenditure

- Nearly one-third of the total expenditure on health is public expenditure, with per capita public expenditure at 40 Intl.$.
- Three-fourths of private expenditure is out-of-pocket.
- Social security expenditure out of the general government expenditure is at 10%, which is relatively higher than the some other countries of this Region.

Q 8 What are the recent reforms and achievements of the health system?

Health sector reforms

- "Healthy Indonesia 2010" envisages health as a shared responsibility between all strata of society, all government departments and the private sector. The mission is to maintain and enhance the health of individuals, family and the community, along with their environments; and promote quality, equity and affordability of health services.
- Indonesia has undergone a process of decentralization in the health sector. This has shifted the responsibility for service delivery and implementation of health programmes to the district level with the national government providing policy guidance, setting of standards, and epidemic control.
- The country has started a programme called Askesin. This is a form of health insurance under which the government pays premia for 60 million of its poorest population to provide free access to medical care.
- The strategy for National Health Development includes (i) initiating health-oriented national development, (ii) professionalism, (iii) community-managed health care programmes, and (iv) decentralization.
- Health paradigm introduced in 1998 focused on health promotion and prevention rather than on curative and rehabilitative services.
- The National Health Information System (HIS) has been reformed to support the 'Healthy Indonesia 2010' vision. Adequate infrastructure has been provided from the national down to the sub-district level. Regional Autonomy Implementation will

consider HIS as an important support for the health provider in convincing other related sections about the usefulness of HIS in decision making.

- The National Social Safetynet Programme (1998) supports routine MCH services, and ensures funding for basic service provision.
- A framework for Health Priorities for Indonesia has been developed. This outlines the guidelines for all programmes of the Ministry. Donor assistance will also focus on supporting the priority programmes identified in the document.

Achievements

- From 60% of the population being below the poverty line in 1970, Indonesia has made great strides to reduce it to around 17% in 2004. The Literacy rate among children 10 years or more increased from 61% in 1971 to 91% in 2002. Thus, social indicators have shown tremendous improvement.
- The infant mortality rate has gradually declined from 142 in 1968 to 50 in 1998 and 32 in 2005.
- Leprosy has been eliminated with prevalence <1 per 10,000 population.

Legislation

- Health Law No. 23 (1992) stipulates the goal of the health programmes to increase awareness, willingness and ability of everyone to live a healthy life. The law emphasizes decentralisation of operational responsibility and authority to the local level as a prerequisite for successful and sustainable development. The law envisages that health systems are implemented by the community with the government only as a facilitator. Also, that the private sector plays an active role in the health sector.
- Law No. 23 on Child Protection (2002) aims to ensure better and more opportunities for children to live healthy lives. This

states that every child has the right to obtain health services and social security according to his/her physical, mental, spiritual and social needs.

- Renewed efforts have been made by the government to address implementation issues by revising the legislation governing decentralization in 2004.
- In 2000, People's Assembly amended the 1945 Constitution to include the right of every citizen to live in a healthy environment and have access to health services and social insurance.

9 What are the constraints and challenges of the health system?

Financial constraints

- The total health expenditure was at 3.1% of GDP in 2003.
- General government expenditure on health was 36% of the total health expenditure in 2003.

Expertise and other physical constraints

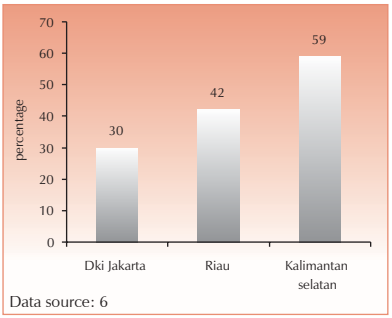
- Availability of health personnel is limited, especially in remote areas.
- In the wake of decentralization, the new roles for all levels are to be fully developed and defined. The main constraint is inadequate managerial expertise at various levels and willingness to assume responsibilities conferred through the decentralization process.

Social constraints

- Two-third of male adults are regular smokers

Indicators	Latest available value	Year	Source
Inequalities – Gender			
Expectation of life at birth F:M	1.06	2002	{1}
Female share in employment (non-agricultural sector) (%)	28.3	2002	{5}
Seats held in parliament – F (%)	8.8	1999	{5}
Ratio of girls to boys in primary schools (%)	100	2002	{5}
Inequalities – Spatial			
Measles immunization (%)			
Urban	78	2002	{3}
Rural	66	2002	{3}
Infant mortality rate (per 1000 live births)			
West Nusa Tenggara	74	1998-2002	{3}
Yogyakarta	20	1998-2002	{3}

Percentage of safe drinking water by region



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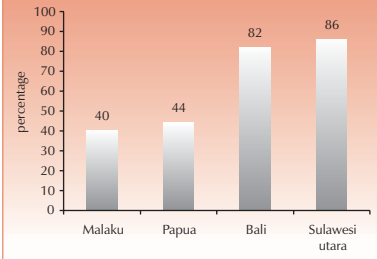
Percentage of contraceptive prevalence



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Health sector constraints

- Limited effective mechanism for financing health care, procurement and distribution of essential commodities, delivering basic services, providing access to the most vulnerable sections, and for surveillance and monitoring the results.
- Low utilization of public health facilities despite vast investment. One of the reasons is poor quality of services, partly due to the fact that most health professionals provide private services after office hours, creating conflict of interest.
- The concept of autonomous hospitals, launched in 1988, allows hospital managers to retain part of the revenue. This may have improved the quality of services. Since the fees are usually high, access to services by the poor is even more difficult.

Challenges

Nutrition

- Reaching the poor, especially children and women, and providing them adequate and nutritious food at an affordable price.

Health services

- Decentralization of health services has created confusion regarding the roles of different levels of administration in health development, particular by at the provincial level.

- Improving health seeking behaviour for pregnancy, safe delivery and appropriate care after birth is more difficult compared to the direct causes of infant and under-five deaths. Recent data show that midwifery services to the vulnerable groups has decreased.
- Urban-rural and regional disparities are wide.
- Indonesia has been successful in mobilizing resources for health. The challenge now is to strengthen the capacity to absorb and utilize these resources.
- Health needs are rapidly increasing due to: (i) increase in population, (ii) ageing, and (iii) increased awareness of health issues. Epidemiological transition toward noncommunicable diseases has added to the burden of disease, associated with high levels of morbidity. It is not limited to the affluent population in urban settings alone but is also affecting poorer people, reducing their earning capacity, and, as such, contributing to further impoverishment.

Lifestyle

- In 2001, 62% of male adults were smoking regularly with the percentage increasing to 67% in rural areas. The smoking habit in the younger population is increasing.

Q 10 What does the country hope to achieve in the near future in health?

- The goal of 'Healthy Indonesia 2010' is to initiate and provide a health dimension to national development. It hopes to maintain and enhance individual, family and public self-reliance in improving the environment, maintain and enhance quality, equitable and affordable health services, and promote public self-reliance in achieving good health.
- Food and nutrition policies aim at empowering poor families and other vulnerable groups to develop self-sufficiency in food through community-based activities. They also stipulate strengthening of the early warning system for food and nutrition; improve the quality of nutrition and food services and integrate them in poverty reduction programmes; and enforce laws on regulation of food and nutrition.
- The National Development Programme hopes to improve in reproductive health services, achieve better control of communicable diseases, improve in basic and referral health services, reduce chronic diet energy deficiency and reduce in anaemia among women.
- Indonesia hopes to arrest the decreasing trend in immunization in certain pockets. The coverage is not only to be sustained but improved as well.
- Indonesians are increasingly exposed to health risks from environmental hazards such as air pollution, water contamination, free availability of potentially harmful chemicals, food contamination, and forest fires. The people hope the government will lay clear guidelines on responsibilities of various institutions in both the public and private sector in view of the complexity of such issues.

- There are strong political movements towards good governance and reforms in the functioning of the public sector. Changes in these areas may have a major effect on the health sector.
- Projects such as *Askesin* are expected to allieviate some of the fianancial barriers in access to medical care for the poor.
- In March 2006, the Ministry of Health issued a new Strategic Plan 2005-2009 emphasizing the new vision 'self-reliant communities to pursue healthy living' and its mission 'to make people healthy'. The values underlying the vision and mission include: being people-oriented, providing rapid and appropriate response, fostering team work, high integrity, transparency and accountability.

11 How is WHO collaborating with the country?

Policy development and planning

- WHO is a member of the UN country team and is actively involved in the UN development assistance framework (UNDAF). It is currently a lead agency for a number of UNDAF outputs related to improved health and nutrition. In order to achieve these outputs, WHO will help coordinate activities closely with other UN agencies working in health, in particular with UNICEF, UNFPA, ILO and FAO.
- WHO support is focused on the development and adoption of standards and norms, implemented through technically sound health interventions. Support being provided to develop a more equitable and efficient health system.
- Support is also being provided for developing responses and taking a pro-active stance on issues of decentralization, privatization, civil services reform, poverty reduction and other elements of overall reform.
- Donor-assisted initiatives to improve health is being supported. Many projects focus on innovations rather than routine programmes. Technical support is provided to facilitate their work.

Health system management

- Much of WHO efforts are concentrated on background work % analysing current data and providing papers on these areas and on key policy issues. Where necessary, limited field trials or training are undertaken to pilot appropriate changes.
- Considering motivational and performance factors among health care personnel, technical support has been enhanced to health care services and training models developed, which could be implemented in many parts of the country.
- There has been detailed involvement in supporting the government on work relating to health system strengthing and decentralization.

- Programme evaluation, assessment for identifying current needs, and short-term technical training for all health units have been supported.
- Expert advice and the best technical practices has been provided at short notice when necessary to facilitate access to decision and policy-makers in the Ministry.

Promotion of healthy lifestyles and settings

- As indonesia is prone to both natural and man-made emergencies, technical support and assisting government's coordination efforts are deemed important to mitigate the health impact of emergencies.
- Support to health promotion activities in areas such as tobacco-free initiative and control of occupational diseases, and help in developmental efforts in these areas have been provided.

Prevention and control of priority diseases

- WHO, together with FAO, is taking a lead role in coordinating the UN approach to support national capacity to respond to avian influenza and pandemic preparedness, and to build necessary capacity.
- Technical support is being provided to high priority diseases such as sexually transmitted diseases and HIV/AIDS, tuberculosis control and integrated management of childhood illnesses (IMCI), for developing new guidelines and protocols, and their testing.
- Communicable disease control programmes, including EPI are being strenghtened, at the district level.
- There is a increase emphasis on control of vector-borne diseases, especially malaria, dengue, and filariasis.
- Health laboratory services are being strenghtened.

Tsunami consequences

- The tsunami in December 2004 killed an estimated 121,000 people in Indonesia. Nearly 114,000 were reported missing. Within days, cases of pneumonia and respiratory tract infections were reported. WHO led the country-level planning and activities and assisted with logistics, resource mobilization, international communications and inter-agency coordination.
- WHO is an active member of the UN technical working group for disaster risk reduction which aims to improve UN coordination and facillitate support to manage risk for, and respond effectively to, disasters.

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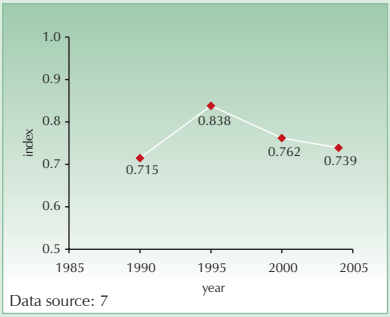
Maldives

Basic information	Latest available value	Year	Source
Total population	298,842	2006	{4}
Area (sq.km.)	298		{1}
Density of population (per sq.km.)	1003	2006	{C}
Administrative divisions	20 administrative atolls and 1192 islands		

Development	Latest available value	Year	Source
Gross national income (GNI) per capita (US$)	2390	2005	{5}
Highest in the world (GNI) – Norway	59590	2005	{5}
Highest in the Region – Thailand (GNI)	2750	2005	{5}
Population below poverty line – Intl.$1 per day (%)	<1	2004	{6}
Lowest in the Region – Maldives	<1	2004	
Population below national poverty line (%)	8	2004	{6}
Lowest in the Region – Maldives	8	2004	
Adult literacy rate >15 years (%)	96.3	2004	{7}
Highest in the Region – DPR Korea	100	2003	
Net enrolment ratio – primary (%)	100	2005	{4}
Highest in the Region – DPR Korea	100	2003	
Human Development Index	0.739	2004	{7}
Highest in the Region – Thailand	0.784	2004	
Human Poverty Index (%)	16.9	2006	{7}
Lowest in the Region – Thailand	9.3	2006	
Gender-Related Development Index	0.739	2002	{8}
Highest in the Region – Thailand	0.781	2006	

Human Development Index



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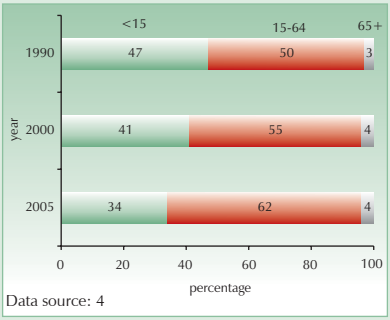
Salient basics

- Maldives is an archipelago comprising 1190 islands of which 199 are inhabitated. Tourism and fisheries are the main industries.
- The net enrolment ratio for both girls and boys is 100%.
- The percentage of the population below the poverty line in Maldives is the lowest in the Region.

Q1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population	298,842	2006	{4}
Population growth rate per year (%)	1.69	2000-2006	{CC}
Urban population (%)	35	2006	{CC}
Age-sex structure			
Sex ratio (F/1000M)	971	2006	{4}
Children <15 years (%)	33	2005	{4}
Elderly >60 years (%)	5.1	2005	{10}
Highest in the world – Italy, Japan	26	2005	{10}
Highest in the Region – DPR Korea	12.7	2002	
Dependency ratio – (<15 and 65+ years) (%)	60	2005	{C}
Fertility			
Birth rate (per 1000 population)	19.0	2005	{4}
Lowest in the world – Germany, Ukraine	8.0	2004	{11}
Lowest in the Region – Thailand	12.7	2002	
Total fertility rate (TFR) (per woman)	2.8	1995-2000	{9}
Lowest in the world – Ukraine	1.1	2004	{11}
Lowest in the Region – Thailand	1.6	2000	
Contraceptive prevalence (%)	22	2005	{4}
Gross mortality			
Crude death rate (per 1000 population)	3.0	2005	{4}
Lowest in the world – UAE	1.0	2004	{10}
Lowest in the Region – Maldives	3.0	2005	

Percentage of population in different age groups



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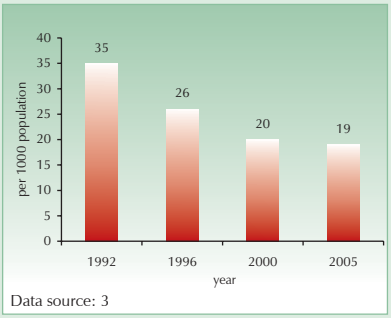
Birth rate



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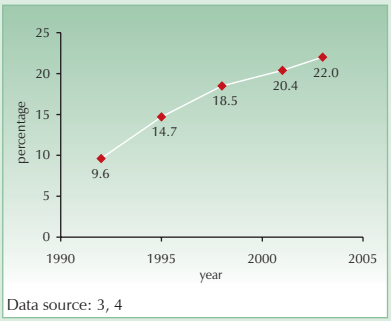
Percentage of contraceptive prevalence



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Salient demographic features

- The population pyramid has started to show a bulge in the middle as the proportion of the population in child age groups is declining and young adults are increasing.
- Contraceptive prevalence is lower than the other countries of the region.
- The crude death rate at 3 per 1000 population is low compared to the other countries of the Region.

2 What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005	2015 (Target)
Poverty and hunger				
Population below minimum level of dietary energy consumption (%)	N/A	N/A	N/A	
Under-weight (<-2SD) children <5 years old (%)	46-52	30	27	23
Child mortality				
Infant mortality rate (per 1000 live births)	34	21	12	11
Under-five mortality rate (per 1000 live births)	48	30	16	16
One year olds immunized against measles (%)	96	99	97	99
Maternal health				
Maternal mortality ratio (per 100,000 live births)	500	78	72	125
Deliveries attended by health staff (%)	N/A	70	87	>90
HIV/Tuberculosis				
HIV incidence – local cases (per 100,000 population)	N/A	N/A	0	
Tuberculosis prevalence – sputum positive (per 100,000 population)	N/A	N/A	0.26	
DOTS coverage (%)	N/A	N/A	100	
Water and sanitation				
Population with access to improved water source (%) – including rain water				
Combined	N/A	77	N/A	
Malé	N/A	N/A	100	
Atolls	N/A	N/A	70	
Population with access to improved sanitation (%)				
Combined	N/A	81	N/A	
Malé	N/A	N/A	100	
Atolls	N/A	N/A	94	

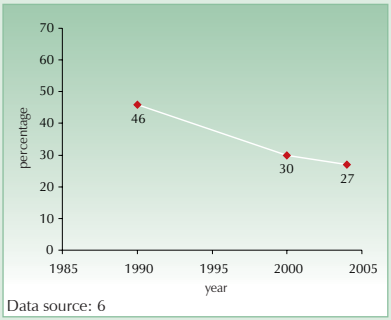
MDG progress

- Progress towards health-related MDGs is on track.

3 What are the major health problems?

Indicators	Latest available value	Year	Source
In children under five years			
Low birth weight (%)	9	2005	{23}
Lowest in the Region – Indonesia	6	2003	
Stunted children (%)	25	2001	{9}
Lowest in the world – Croatia	1	1998-2004	{11}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children (%)	27	2004	{6}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{11}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Diarrhoeas - reported cases incidence (per 1000 children <5 years)	147	2003	{3}
Acute respiratory infections – reported cases incidence (per 1000 children <5 years)	530	2003	{3}
Thalassaemia registered cases (per 100,000 population)	197	2005	{23}
Other diseases			
Tuberculosis incidence (per 100,000 population)	40	2004-2005	{4}
Leprosy incidence (per 100,000 population)	6	2005	{23}
Conjunctivitis – reported cases (per 100,000 populations)	6251	2003	{3}
HIV incidence (per 100,000 population) – Total population	7	2005	{4}
Diabetes prevalence (per 100,000 population)	2280	2000	{19}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	7.5	2002	{14}
Female	9.0	2002	{14}
As % of expected life at birth (ELB) lost			
Male	11.3	2002	{14}
Female	13.8	2002	{14}

Percentage of underweight children



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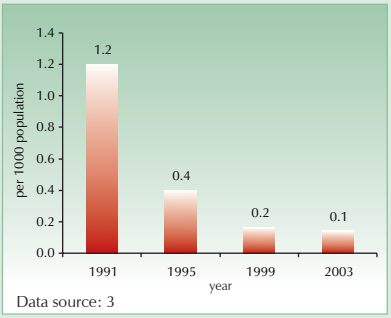
Tuberculosis prevalence (sputum positive) per 1000 population



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Major health problems

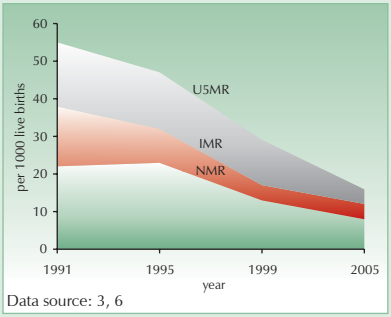
- There is substantial improvement in the nutrition status of children but nearly one-fourth are under-weight.
- Considerable progress has been made in the control of communicable diseases.Tuberculosis incidence is around 40 per 100,000 population.
- Worm infestation is high in the country and 50-75% children below five years of age are estimated to be affected.
- Not much data are available on chronic diseases.
- Nearly 200 cases of thalassemia per 100,000 population are registered.

4

What is the mortality profile?

Indicators	Latest available value	Year	Source
Mortality rates			
Neonatal mortality rate (NMR) (per 1000 live births)	8	2005	{23}
Lowest in the world – Singapore	1	2000	{12}
Lowest in the Region – Maldives	8	2005	
Infant mortality rate (IMR) (per 1000 live births)	12	2005	{4}
Lowest in the Region – Sri Lanka	11	2003	
Under-five mortality rate (U5MR) (per 1000 live births)	16	2005	{4}
Lowest in the world – Iceland, Singapore	3	2004	{11}
Lowest in the Region – Maldives, Sri Lanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	72	2005	{23}
Lowest in the Region – Thailand	14	2003	
Age at death			
Expectation of life at birth (ELB) (years)	73	2002	{3}
Highest in the world – Japan	82	2004	{15}
Highest in the Region – Maldives, Sri Lanka	73	1996-2001	
Deaths under-five years (% of total deaths)	9	2005	{4}
Lowest in the Region – Thailand	4	2002	
Causes of death			
Three major causes of deaths (% of <5 years deaths)			
Diarrhoeal diseases	20	2000	{18}
Preterm births	18	2000	{18}
Pneumonia	17	2000	{18}
Three major causes of deaths (% of total death)			
Cardiovascular diseases	35	2005	{23}
Disease of respiratory system	12	2005	{23}
Cerebrovascular disease deaths	7	2002	{18}

Mortality rates



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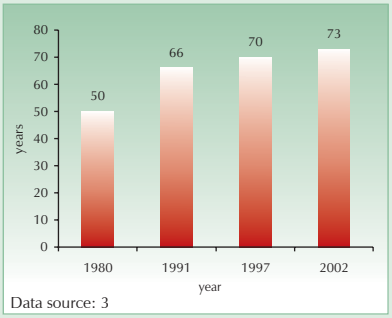
Expectation of life at birth



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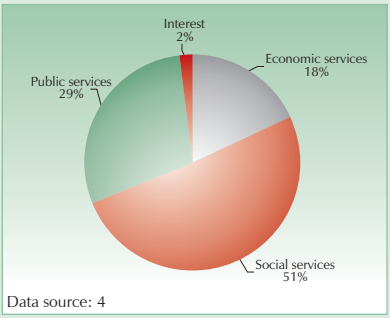
Mortality profile

- Child mortality is low.
- After showing a rapid increase in the 1980s, expectation of life is the highest in the Region.
- When diseases of the circulatory system and other forms of heart disease are pooled together, more than 45% of deaths in 2003 seem to have occured due to cardiovascular diseases.

5 What resources are available for the health sector?

Indicators	Latest available value	Year	Source
Expenditure on health			
Percentage of GDP	6.2	2003	{14}
Highest in the world – USA	15.2	2003	{14}
Highest in the Region – Timor-Leste	9.6	2003	
Per capita (US$)	136	2003	{14}
Per capita (Intl.$)	364	2003	{14}
Highest in the world – USA (Intl.$)	5711	2003	{14}
Highest in the Region – Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2560	2001-2003	{15}
Services			
Health centres (per 100,000 population)	23	2003	{9}
Antenatal care coverage (at least one visit) (%)	100	2004	{9}
Women immunized with TT during pregnancy (%)	95	2003	{9}
Deliveries by qualified attendant (%)	87	2004	{6}
Children immunized (%)			
BCG	99	2005	{21}
DPT-3	98	2005	{21}
Polio-3	98	2005	{21}
Measles	97	2005	{21}
Beds (per 10,000 population)	26.0	2005	{1}
Highest in the world – Monaco	196	1995	{12}
Highest in the Region – DPR Korea	132	2002	
Human resources			
Doctors of modern system (per 10,000 population)	13.0	2005	{1}
Highest in the world – Cuba	59	2002	{15}
Highest in the Region – DPR Korea	32	2003	{15}
Nurses (per 10,000 population)	33.0	2003	{23}
Highest in the Region – DPR Korea	37	2003	{15}
Dentists (per 10,000 population)	0.4	2004	{15}
Pharmacists (per 10,000 population)	7.3	2004	{15}
Community Health Workers (per 10,000 population)	28.0	2004	{15}
Lab Technicians (per 10,000 population)	5.1	2004	{15}
Other Health workers (per 10,000 population)	0.4	2004	{15}

Central government expenditure



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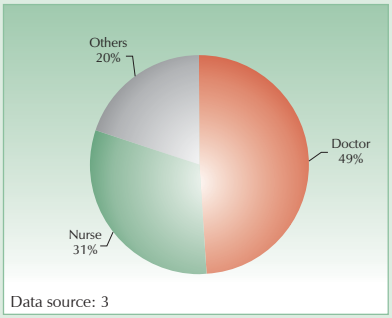
Attendance at birth – 2003



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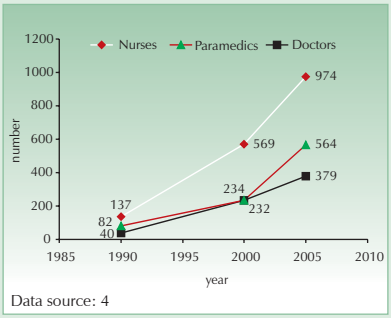
Human resources



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Health resources

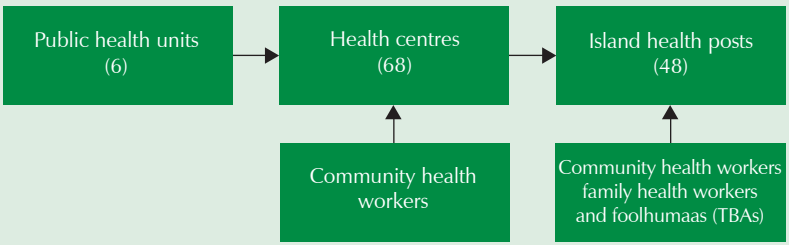
- Maldives spends more than 6% of it's GDP on health. Per capita expenditure of 364 Intl$ is better than all other countries in the Region.
- Provision of health centres and coverage achieved such as for immunization and deliveries attended is adequate.
- Availability of health staff has improved tremendously over the last few years.

6 What is the system of health governance?

Organization

The Ministry of Health has a 5-tier system of health administration. The Department of Health of the Ministry is responsible for delivering preventive and promotive health programmes. It is also responsible for delivering basic health care including curative and rehabilitative services to the islands and atolls.

Next to the central level is the Regional level where a Public Health Unit each implements preventive health programmes and supervises the lower-level health services. At the next level, each atoll has 1 to 3 Health Centres. Their staff includes a doctor and Community Health Workers. Many of these centres have beds and a labour room, and they offer a wide range of services.



At the lowest level are Island Health Posts. These provide a clean environment for delivery of births and are staffed with a Community Health Worker in some cases and Family Health Workers and foolhumaas or TBAs.They provide simple curative and preventive services at the island level, including drugs such as antihelmenthics, iron, folic acid, aspirin and others.

Private sector

Health care in the private sector primarily covers outpatient and diagnostic services. The first private hospital was opened in Male' in 1996. In 2000, Male' had 30 private clinics and the atolls had 17. Many of these clinics are owned and run by public sector doctors on a part-time basis.

There are also a number of independent laboratory services. In 2004, there were 18 such laboratories, will form of them were in rural areas.

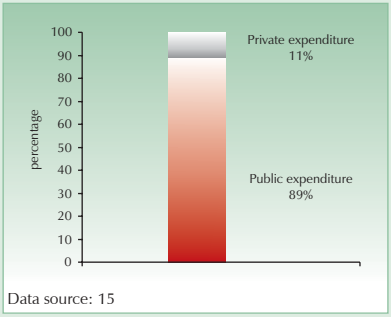
Traditional system

Although not in the public sector, some private clinics provide services under traditional medicine and other alternative forms. There is only one recognized traditional medicine clinic in the country.

Q 7 Who pays for health care?

Indicators	Latest available value	Year	Source
Government expenditure on health			
Out of total health expenditure (%)	89	2003	{15}
Per capita (US$)	121	2003	{15}
Per capita (Intl.$)	324	2003	{15}
Highest in the world – Monaco (Intl.$)	3403	2003	{15}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (%)	11	2003	{15}
Per capita (US$)	15	2003	{C}
Per capita (Intl.$)	40	2003	{C}
Lowest in the Region – DPR Korea	0.4	2003	
Out-of-pocket expenditure (% of private expenditure on health)	100	2003	{15}
Per capita (US$)	15	2003	{C}
Per capita (Intl.$)	40	2003	{C}
Lowest in the world – Tuvalu	13	2003	{15}
Lowest in the Region – Timor-Leste	26	2003	
Insurance coverage			
Social security expenditure on health out of general govt. expenditure on health (%)	23	2003	{15}

Health expenditure



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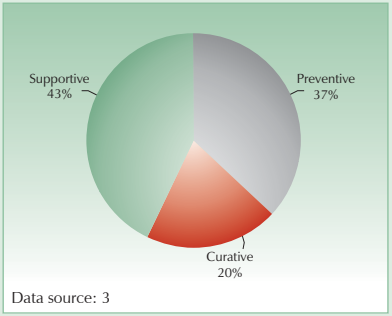
Health expenditure by functions 2003



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Health expenditure

- Expenditure on social security is 23% of the general government expenditure on health.
- Expenditure on preventive services is more than one-third of the total health expenditure.
- Maldives has the highest per capita public health expenditure in the Region.

8 What are the recent reforms and achievements of the health system?

Health sector reforms

- To achieve the aim of increasing the life expectancy and to improve quality of life, the government is developing the health infrastructure and providing better medical and health services within the overall framework of a sustainable health system.
- A health promotion network was established in 2002 comprising members from government agencies, UN agencies, NGOs and individuals interested in health promotion activities. The group organizes participatory meetings on specific areas of health to spread the message.
- The Ministry of Health has identified promotion of healthy lifestyle as a priority public health function, and programmes such as Anti-Tobacco School Campaign and Sports for All are being implemented.
- Realizing the seriousness of the nutrition problem in the country, the government formulated a National Nutritional Strategic Plan 2002-06 which was launched in 2003. This plan focuses on health education and promotion of healthy diets. The development of such a plan signifies the acknowledgement that malnutrition is a national problem.
- Maldivians traditionally depend on shallow wells to provide access to the islands' freshwater sources for drinking water. These sources are susceptible to pollution. High priority has been accorded now to rain-water collection. This policy has facilitated the shift from well water to less polluted rain-water in many islands.
- A national drug policy has been launched and a draft formulary has been prepared. Regular workshops are conducted on the rational use of drugs.

Achievements

- During the 1990s, significant progress was made in stabilizing population growth. The birth rate declined from 41 to 19, the total fertility rate from 5.4 to 2.8 and population growth from 2.8% to 1.7%.
- The infant mortality rate declined from 78 per 1000 live births in the 1980s to 12 in 2005. The under-five mortality rate declined to 16 per 1000 live births. These marked improvements reflect the achievements in the management of childhood diseases such as acute respiratory infections (ARIs) and diarrhoeas as well as the contribution of a high level of immunizations.
- There has been a steady decline in the incidence of underweight in children in recent years. Gender differentials in education and in indicators such as infant mortality practically do not exist.
- Notable achievements have been made in the control of communicable diseases. No malaria case has been detected since 1984. The incidence of tuberculosis is 0.2 per 1000 population. Due to effective surveillance, increased awareness and early detection and management of cases, leprosy decreased to 0.06 per 1000 population in 2005. Vaccine-preventable diseases are well under control.

Legislation

- The Sixth National Plan proposes to develop a comprehensive legal framework that can address negligence, malpractices, patient protection, medical records, practitioner licensing and health care financing.
- Recognizing the need for a regulatory mechanism, the government has formed the Maldives Medical Council, the Maldives Nursing Council and the Maldives Board for Health Services for addressing regulatory Issues in health care. However, these bodies have teething problems due to lack of human and other resources.
- An urgent need is felt to devise a comprehensive Food Act to ensure the safety of food and drink. This has been drafted with WHO assistance but is yet to be implemented.

9 What are the constraints and challenges of the health system?

Financial constraints

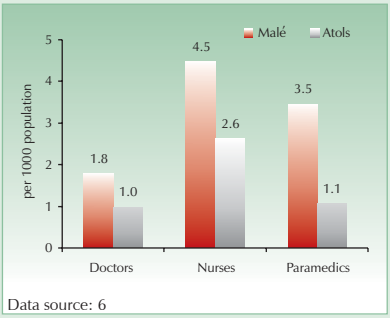
- Although per capita public expenditure on health remained steady, it declined from 11.26% of the national budget in 1996 to 9.44% in 2002. Among programmes affected by shortage of funds is training of paramedical staff. The government heavily depends on external funding for capital investment and human resources development in the health sector.
- Due to improvement in tourism industry in the past quarter of a century, a few has been enriched but a majority of the population are barely above the poverty line. Thus, the disparities have aggravated and reflected one of the health services as well.
- More government expenditure on secondary and tertiary levels of care contradicts the stated national policy of emphasis on preventive and promotive services.
- Regulatory mechanism and framework remain inadequate for proper financing, including financing for alternative health care.

Expertise and other physical constraints

- An acute shortage of skilled personnel is a major constraint for sustainable health development. Although one doctor is available per 770 persons, 79% of them are expatriates. While satisfactory achievements have been made in the training of medical doctors and diploma level nurses, the vertical training programme has failed to produce sufficient community health workers and other paramedical personnel. Shortage of biomedical expertise has given rise to problems with the maintenance and repair of equipment.

Indicators	Latest available value	Year	Source
Inequalities – Gender			
Expectation of life at birth F:M	1.01	2005	{4}
Labour force participation rate of women aged 15-64 years (%)	43	2004	{6}
Seats held in National Convention – F (%)	12.0	2005	{6}
Gross enrolment ratio of girls to boys in primary schools (%)	91	2004	{6}
Inequalities – Spatial			
Infant mortality rate (per 1000 live births)			
Malé	8	2003	{3}
Atols	18	2003	{3}
Access to improved sanitation			
Malé	100	2004	{6}
Atols	94	2004	{6}

Distribution of human resources in Malé and Atols per 1000 population



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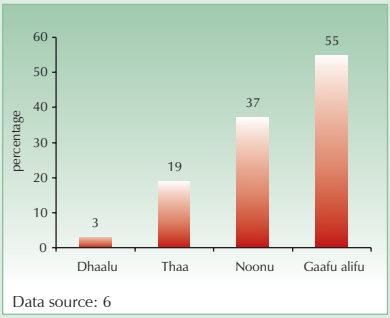
Percentatge of stunted children <5 years in Atols



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- The health information system (HIS) also faces difficulty due to the limited number of trained personnel, particularly at the peripheral level.

Gender inequalities are not substantial but area-wise inequalities exist. Stunting in children is 3% in Dhaalu but very high at 55% in Gaafu Alifu.

Health sector constraints

- At the island level, only a limited range of family planning services are available.
- Monitoring of sector performance (availability, accessibility, affordability, acceptability of services and equity) is insufficient.

Challenges

Nutrition

- Undernutrition has significantly decreased but nearly one in four children may be underweight even by 2015. MICS2-2001 also revealed that anaemia is rampant with 52% children, 55% pregnant women and 50% non-pregnant women affected.
- Development of national standards, quality assurance, training and monitoring is required.

Health services

- With the reduction in child mortality and better management of infectious diseases, expectation of life is increasing. Coupled with an increase in adverse lifestyle, an increase in noncommunicable diseases is inevitable. The country has to prepare to address the upcoming problems of cancer, cardiovascular diseases and diabetes. The operational efficiency of ongoing intervention programmes against these diseases must be improved.
- Due to demographic transition, adolescents are now peaking as a percentage of total population. This affords a great opportunity to inculcate healthy lifestyle to curb the future burden of noncommunicable diseases. In addition, efforts are needed to meet the special health needs of the adolescent group.
- HIV prevalence is low but to maintain it at that level is a challenge. Efforts are required to strengthen awareness programmes and to continuously assess their impact.

- Maldives has among the highest incidence of thalassaemia in the world. One out of every six persons is a thalassaemia carrier. The country has a National Thalassaemia Centre and considerable resources are devoted to this disease.

Inequities

- Although the MDG target for reducing poverty may be achieved, inequities between Male' and the atolls is on the increase. The gender dimension of income inequalities is also significant.

Resources

- Human resources for health are inadequate. A master plan has been drawn but there is a need to implement it, including research on human resources policy and staff training in appropriate technology, consistent with Health Vision 2020.
- With a demographic and epidemiological shift, and increase in awareness, public demand for better health service delivery has increased considerably. Health care delivery with equity is a challenge.

10 What does the country hope to achieve in the near future in health?

- National Vision 2020 envisages healthy lifestyles for the people, access to good quality health care close to their homes, and easy access to a health insurance scheme to meet their health expenditure.
- For accessibility and affordability, there is a move to establish a more decentralized referral system with greater involvement of NGOs and the private sector in service delivery. Efforts are going on to establish a social security system that includes basic health care, and encourages individual organizations to establish mechanisms cover the health expenses of their employees.
- The government intends to strategically strengthen national capacities in management and development of the health system to achieve maximum self-reliance.
- The national goals on nutrition include food security, a comprehensive nutritional package, prevention and control of micronutrient deficiencies, promotion of exclusive breastfeeding and nutritional supplementation. The Department of Public Health is implementing programmes to address these issues.
- Death rates have considerably reduced. It is realized that further reduction would require investment for control of noncommunicable diseases. Prevention and control of such diseases would be perhaps more cost-effective than expensive capital investment in treatment, although it is also realized that treatment investment may be inevitable in the near future.
- Although the data are insufficient, indications are that maternal mortality has considerably declined. Further interventions, particularly to address widely prevalent anaemia in pregnant women, would be needed for furthere reduction in the maternal mortality ratio.

- To control acute respiratory infections (ARIs) sequelae, guidelines for their management have been circulated and peripheral health workers trained. Most facilities at atoll level have been supplied with nebulization equipment and oxygen concentrators. It is hoped that these steps would substantially help in mitigating the consequences of ARIs.
- The health information system (HIS) is being strengthened by introducing standardized formats for reporting and by enhancing capacity for data management at different levels. Efforts are being made to improve two-way communication within HIS.
- Medical research is mostly confined to prevailing situations in reproductive health, nutrition and the status of some specific diseases. Attention could not be given to clinic-based research mainly due to lack of resources and limited expertise. This is an area that the country hopes to focus in near future.
- Health care policy goals specified in the proposed Health Master Plan (2007-2016) are as follows:
  - To ensure people have the appropriate knowledge and practices to protect and promote their health.
  - To ensure safe and supportive environments are in place to promote and protect the health and well being of the people.
  - To prevent and reduce the burden of disease and disabilities.
  - To reduce the disparities in the quality of life and disease burden.
  - To ensure all citizens have equitable and equal access to health care.
  - To ensure public confidence in the national health system.
  - To build partnerships in health service.
  - To ensure adequate and appropriate human resources for health service provision.
  - To ensure the health system is financed by a sustainable and fair mechanism.

11 How is WHO collaborating with the country?

Policy development and planning

- Promoting and maintaining the technical leadership role in the overall national health development and management, WHO has been providing Maldives with much-needed technical support for better understanding and coordination between all ministries, sectors, agencies, donors and NGOs.
- The Ministry of Health and WHO organized a meeting in 1995 with the theme, 'Towards Sustainable Development in Health' that stimulated considerable interest of the donor partners. Japan supported provision of basic human needs in health, sanitation and education; and Australia supported human resources development, control of diseases, health information system, essential drugs and strengthening of reproductive health.
- Following the initiative of WHO, UN Inter-agency Group meetings have been organized to maximize the utilization of available resources and to avoid duplication and unnecessary competition among various agencies.

Health system management

- To counter dwindling external assistance for health in recent years, the government of Maldives has taken the initiative in collaboration with WHO to improve assistance from donors.
- Assistance was provided in drafting foodsafety regulations but they are waiting to be implemented.
- Visits of several health officials to other countries were supported to exchange experiences and to enhance the management of health sector development. Adaptation of the WHO Contractual Services Agreement mechanism under bilateral arrangements

to train the health personnel has been a major achievement in meeting the human resources for health requirements of the country.

- The effective management of supplies, rational use, quality control and regular provision of essential drugs has been supported.
- The preparation of the national health promotion plan that strategises targeting the general masses was supported.
- A 'National Action Plan on Health and Environment' was developed with the integrated efforts of the concerned ministries, sectors and WHO. Five islands were to be developed as 'Healthy Islands' adopting WHO's Health and Environment Initiative on 'Healthy City' concept, incorporating the health concerns into environmental management.

Promotion of healthy lifestyles and settings

- In collaboration with WHO, UNODC supported the country in prevention of drug abuse and rehabilitation of drug abusers, and UNDP supported the environment programme.
- WHO and UNICEF have implemented many joint activities such as international EPI reviews, a nutrition survey and the baby-friendly hospital initiative.

Prevention and control of priority diseases

- The Home Based Maternity Record Card was introduced countrywide with the joint support of WHO and UNFPA. This has facilitated the activities of the reproductive health programme.
- After withdrawal of UNAIDS inputs in 1998, WHO provided extra support to strengthen the national HIV/AIDS/STD programme.
- The overall programme management of the National Thalassaemia Centre facilitating screening services and preventive programmes was supported.

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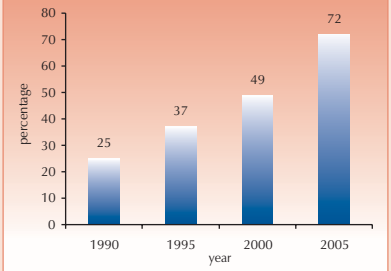
Myanmar

Basic information	Latest available value	Year	Source
Total population (million)	55.4	2005-2006	{1}
Area (sq.km.)	676,578		{1}
Density of population (per sq.km.)	82	2005	{C}
Administrative divisions	14 states/divisions, 65 districts and 325 townships		

Development	Latest available value	Year	Source
Gross national income (GNI) per capita (US$)	≤ 875	2005	{3}
Highest in the world (GNI) – Norway	59590	2005	{3}
Highest in the Region – Thailand (GNI)	2750	2005	
Poverty gap ratio (%)	6.8	2004	{3}
Population below national poverty line (%)	26.6	2001	{4}
Lowest in the Region – Maldives	8	2004	
Adult literacy rate >15 years (%)	92	2003	C
Highest in the Region – DPR Korea	100	2003	
Net enrolment ratio – primary (%)	85	2005	{4}
Highest in the Region – DPR Korea	100	2003	
Human Development Index	0.581	2004	{5}
Highest in the Region – Thailand	0.784	2004	
Human Poverty Index (%)	21.6	2006	{5}
Lowest in the Region – Thailand	9.3	2006	
Gender-Related Development Index	0.548	2002	{6}
Highest in the Region – Thailand	0.781	2006	

Percentage of children starting grade 1 and reaching grade 5



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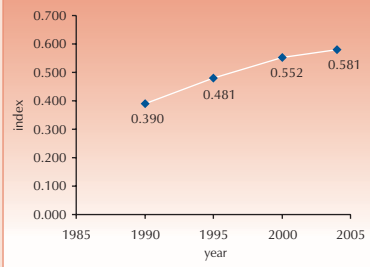
Human Development Index



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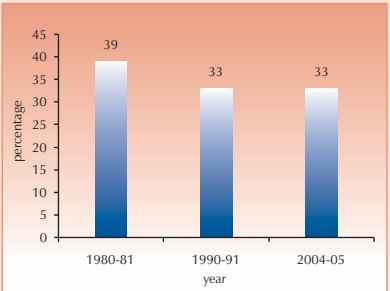
Salient basics

- Improving health, fitness and education standards of the entire nation are among the explict national objectives.
- Myanmar is undergoing a transition to a market-oriented system.
- Primary education is compulosry and plans are underway to reduce dropout rates. Enrolment in primary schools (5-9 years) is 85%.

Q1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population (million)	55.4	2005-2006	{1}
Population growth rate per year (%)	2.02	2005-2006	{1}
Urban population (%)	30	2005-2006	{1}
Age-sex structure			
Sex ratio (F/1000M)	1011	2004-2005	{1}
Children <15 years (%)	33	2004-2005	{1}
Elderly >60 years (%)	8	2004-2005	{1}
Highest in the world – Italy, Japan	26	2005	{8}
Highest in the Region – DPR Korea	12.0	2002	
Dependency ratio (%)	55	2005	{23}
Fertility			
Birth rate (per 1000 population)			
Urban	19.9	2003	{1}
Rural	22.4	2003	{1}
Lowest in the world – Germany, Ukraine	8.0	2004	{10}
Lowest in the Region – Thailand	12.7	2002	
Total fertility rate (TFR) (per woman)	2.3	2005	{15}
Lowest in the world – Ukraine	1.1	2004	{11}
Lowest in the Region – Thailand	1.6	2000	
Contraceptive prevalence (%)	37	2001	{4}
Gross mortality			
Crude death rate (per 1000 population)			
Urban	5.6	2003	{1}
Rural	6.5	2003	{1}
Lowest in the world – UAE	1.0	2004	{10}
Lowest in the Region – Maldives	3.0	2005	

Percentage of population 0-14 years



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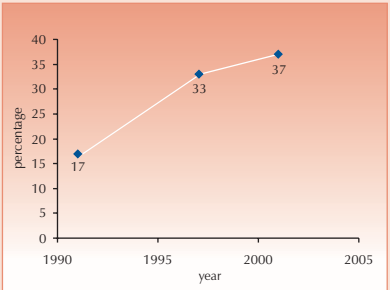
Percentage of contraceptive prevalence



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Salient demographic features

- The birth rate has declined substantially.
- The population is still predominently young with 33% less than 15 years old.
- Contraceptive prevalence has increased considerably.

Q 2 What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005	2015 (Target)
Poverty and hunger				
Population below minimum level of dietary energy consumption (%)	N/A	31 (1997)	N/A	15
Under-weight (<-2SD) children (%)	39 (1997)	35	32 (2003)	19
Child mortality				
Infant mortality rate (per 1000 live births)	98	55 (1999)	50 (2003)	28
Under-five mortality rate (per 1000 live births)	130	78	67 (2003)	39
One year olds immunized against measles (%)	68	87 (1998)	81	>90
Maternal health				
Maternal mortality ratio (per 100,000 live births)	232 (1994)	255 (1999)	380 (2002-03)	63
Deliveries attended by health staff (%)	51	57 (2001)	68 (2003)	
HIV/Malaria/Tuberculosis				
HIV prevalence (per 100,000 pregnant women of age 15-24 years)	271 (1992)	278	131 (2004)	
Malaria prevalence (per 100,000 population at risk)	2440	1180	930	
Tuberculosis prevalence – (per 100,000 population)	419	182	180	
Tuberculosis cases detected (%)	38	55	95	
Water and sanitation				
Population with access to improved water source (%)				
Combined	32	72	79 (2003)	66
Rural	30	66	74 (2003)	65
Urban	38	89	92 (2003)	69
Population with access to improved sanitation (%)				
Combined	36	83	83 (2003)	68
Rural	35	82	81 (2003)	68
Urban	40	87	88 (2003)	70

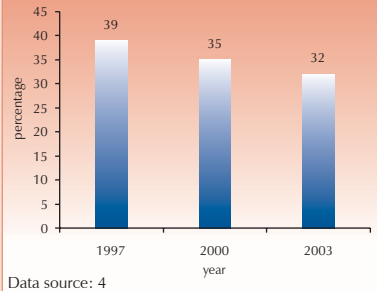
MDG progress

- Targets for improved water and sanitation have been achieved.
- Child mortality has been halved in the period 1990 to 2003. This is on track for achieving MDG targets.
- There is progress regarding control of major diseases such as HIV, malaria and tuberculosis.
- There is progress in some disease-related indicaotrs, in water and sanitation and child mortality. Maternal health and nutrition may require scaling-up.

3 What are the major health problems?

Indicators	Latest available value	Year	Source
In children under-five years			
Low birth weight (%)	10	2004	{24}
Lowest in the Region – Indonesia	6	2002	
Stunted children (%)	32	1996-2004	{10}
Lowest in the world – Croatia	1	1998-2004	{10}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children (%)	32	2003	{4}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{10}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Acute respiratory infections prevalence (% in <5 years chlidren)	2	1998-2004	{10}
Other diseases			
Tuberculosis prevalence (per 100,000 population)	180	2005	{CC}
Malaria prevalence (per 100,000 population)	930	2005	{CC}
HIV prevalence (per 100,000 population) – Total population	624	2004	{1}
15-49 years	1300	2005	{19}
Diabetes prevalence (per 100,000 population)	1108	2000	{18}
Cancer prevalence (per 100,000 population)	117	1994	{13}
Goitre prevalence (per 100,000 population)	5500	2004	{4}
Blindness prevalence (per 100,000 population)	600	1998	{1}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	6.3	2002	{14}
Female	8.4	2002	{14}
As % of expected life at birth (ELB) lost			
Male	11.2	2002	{14}
Female	13.5	2002	{14}

Percentage of under-weight children



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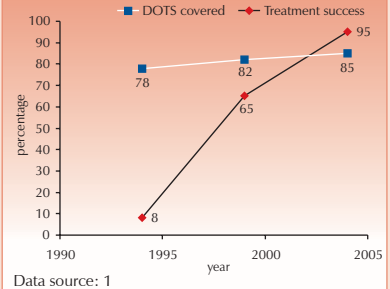
Percentage of population covered by DOTS and treatment success



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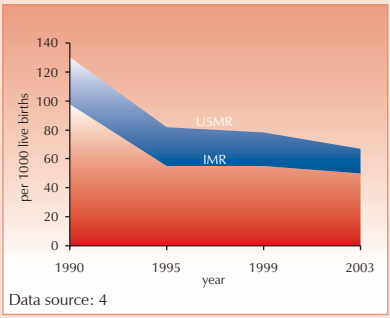
Major health problems

- Diarrhoeas and acute respiratory infection may be common during childhood but national data are limited. For children, the major focus is on deworming.
- Major causes of morbidity according to hospital statistics are injuries and malaria.
- There is a steep increase in DOTS coverage and some increase in treatment success rate for tuberculosis.

4 What is the mortality profile?

Indicators	Latest available value	Year	Source
Mortality rates			
Neonatal mortality rate (NMR) (per 1000 live births)	40	2000	{11}
Lowest in the world – Singapore	1	2000	{11}
Lowest in the Region – Maldives	8	2005	
Infant mortality rate (IMR) (per 1000 live births)	50	2003	{4}
Lowest in the Region – Sri Lanka	11	2003	
Under-five mortality rate (U5MR) (per 1000 live births)	67	2003	{4}
Lowest in the world – Iceland, Singapore	3	2004	{10}
Lowest in the Region – Maldives, Srilanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	380	2002-2003	{4}
Lowest in the Region – Thailand	14	2003	
Age at death			
Expectation of life at birth (ELB) (years)	60-64	2001-2002	{1}
Highest in the world – Japan	82	2004	{15}
Highest in the Region – Maldives, Sri lanka	73	1996-2001	
Deaths under-five years (% of of total deaths)	25	2004	{C}
Lowest in the Region – Thailand	4	2002	
Causes of death (percentage of total deaths)			
Three major causes of deaths (%of total deaths in hospitals)			
Malaria	8	2004	{1}
Cerebrovascular disease deaths	6	2002	{20}
Diseases of the respiratory system	4	2004	{1}
Tuberculosis death rate (per 100,000 population)	21	2004	{1}
Malaria death rate (per 100,000 population)	3	2004	{1}
Tuberculosis deaths (% of total deaths)	2	2002	{20}
Injuries	4	2004	{1}

Infant and under-five mortality



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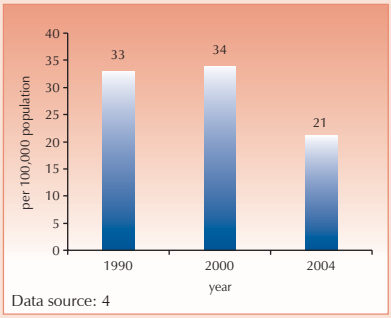
Tuberculosis death rate



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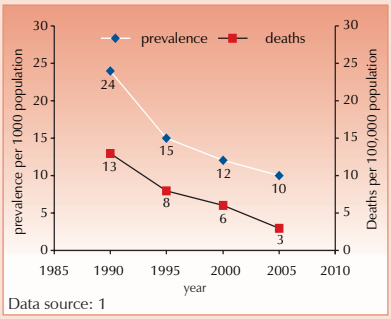
Prevalence and deaths from malaria



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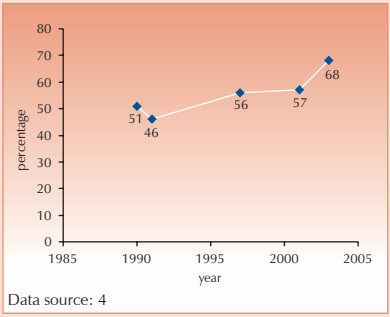
Mortality profile

- Nearly one-fourth of all deaths occur before the age of 5 years.
- Population-based data are not available but hospital statistics show that communicable diseases continue to be predominant. Cardiovascular diseases caused 2.4% of all hospital deaths and cerebrovascular diseases 6%.

Q 5 What resources are available for the health sector?

Indicators	Latest available value	Year	Source
Expenditure on health			
Percent of GDP	2.8	2003	{15}
Highest in the world – USA	15.2	2003	{15}
Highest in the Region – Timor-Leste	9.6	2003	
Per capita (US$)	394	2003	{15}
Per capita (Intl.$)	51	2003	{15}
Highest in the world – USA (Intl.$)	5711	2003	{15}
Highest in the Region – Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2900	2001-2003	{16}
Services			
Health centres (per 100,000 population)	3	2005-2006	{1}
Antenatal care coverage (four visits) (%)	66	2004	{24}
Deliveries by qualified attendant (%)	68	2003	{4}
Children immunized(%)			
BCG	76	2005	{25}
DPT-3	73	2005	{25}
Polio-3	73	2005	{25}
Measles	72	2005	{25}
Beds (per 10,000 population)	6.0	2005-2006	{1}
Highest in the world – Monaco	196	1995	{11}
Highest in the Region – DPR Korea	132	2002	
Human resources			
Doctors of modern system (per 10,000 population)	3.0	2005-2006	{1}
Highest in the world – Cuba	59	2002	{15}
Highest in the Region – DPR Korea	32	2003	
Doctors of alternative systems (per 10,000 population)	0.2	2005-2006	{1}
Nurses (per 10,000 population)	4.0	2005-2006	{1}
Highest in the Region – DPR Korea	37	2003	{15}
Midwives (per 10,000 population)	6.0	2004	{15}
Dentists (per 10,000 population)	0.3	2004	{15}
Public and Environmental Health Workers (per 10,000 population)	0.4	2004	{15}
Community Health Workers (per 10,000 population)	9.9	2004	{15}
Lab Technicians (per 10,000 population)	0.4	2004	{15}
Other Health workers (per 10,000 population)	0.4	2004	{15}

Percentage of deliveries attended



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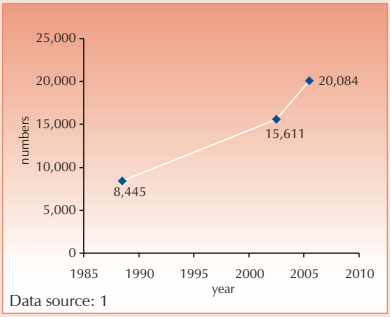
Number of nurses



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Health resources

- Although malnutrition in children persists, the average dietary energy consumption is adequate.
- Percentage of GDP spent on health is lower compared to other countries of the Region.
- Immunization coverage and ANC coverage has been increasing.

Q 6 What is the system of health governance?

Organization

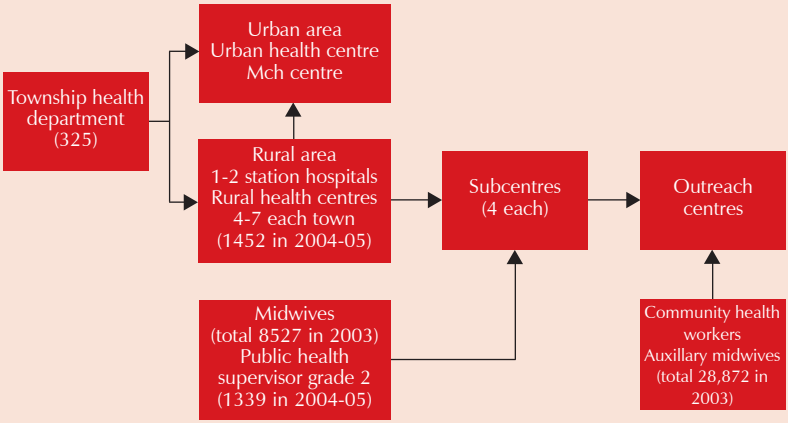
The Ministry of Health guided by the National Health Committee has seven departments. These are:

- Department of Health Planning
- Department of Health
- Department of Medical Sciences
- Department of Medical Research (Lower Myanmar)
- Department of Medical Research (Upper Myanmar)
- Department of Medical Research (Central Myanmar)
- Department of Traditional Medicine

Besides planning, the Department of Health Planning compiles and disseminates health information. This also has a Health Education Division.

The Department of Health is headed by a Director-General. The Public Health Division of this department manages primary health care, nutrition promotion and research, environmental sanitation, maternal and child health services, and school health services. The backbone of primary and secondary health care is the Township Health Department covering 100,000 to 200,000 people.

Urban areas are served by township hospitals (16-50 bedded), urban health centres, school health teams and MCH centres. For rural areas, each Township Health Department has 1-2 Station Hospitals, 4-7 Rural Health Centres, (RHC). Each RHC has 4 subcentres and many outreach centres. Each subcentre is served by a Midwife and Public Health Supervisior Grade 2, and outreach centres by Community Health Workers and Auxillary Midwives. Together, they are called Voluntary Health Workers.



As of 2004-05, Myanmar has a total of 824 government hospitals. In addition, 442 dispensaries, 86 primary and secondary health teams serve urban areas.

Private sector

The private sector mainly provides ambulatory care. Some facilities in the private sector provide institutional care in large cities such as Yangon and Mandalay. They are regulated by the Myanmar Medical Council Law.

Traditional system

Traditional medicine co-exists with the allopath system. There are 14 hospitals of traditional medicine in the state sector and 194 township clinics. An Institute of Traditional Medicine and a University of Traditional Medicine provide training.

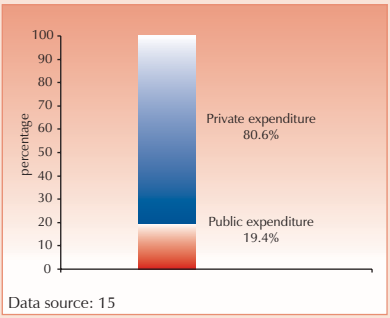
The Department of Traditional Medicine of the Ministry of Health reviews and explores safe and efficacious therapeutic agents.

Quite a number (nearly 5000 as of 2000) of private traditional medicine practitioners exist. They are licensed and regulated in accordance with the law in this respect.

Q7 Who pays for health care?

Indicators	Latest available value	Year	Source
Government expenditure on health			
Out of total health expenditure (%)	19	2003	{15}
Per capita (US$)	77	2003	{15}
Per capita (Intl.$)	10	2003	{15}
Highest in the world – Monaco (Intl.$)	3403	2003	{15}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (%)	81	2003	{15}
Per capita (US$)	318	2003	{C}
Per capita (Intl.$)	41	2003	{C}
Lowest in the Region – DPR Korea	0.4	2004	
Out-of-pocket expenditure (% of private expenditure on health)	99.7	2003	{15}
Per capita (US$)	317	2003	{C}
Per capita (Intl.$)	41	2003	{C}
Lowest in the world – Tuvalu	13	2003	{15}
Lowest in the Region – Timor-Leste	26	2004	
Insurance coverage			
Social security expenditure on health out of general government expenditure on health (%)	1.3	2003	{15}

Health expenditure



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Health expenditure

- Government health expenditure as a proportion of the total is low in Myanmar compared to some other countries in the Region.
- Social security expenditure on health out of general government expenditure on health is 1.3%.

8 What are the recent reforms and achievements of the health system?

Health sector reforms

- The national health plans are designed to pay more attention to primary health care for the people and to ensure equity in access to health care. Community participation is encouraged to enable the community to take responsibility for their own health and to enable them to adopt healthy lifestyles.
- The role of indigenous medicine is recognized and has been given an improtant role in health care delivery system. The people now have access to alternative choices.
- Since 70% of the population is rural, priority has been accorded to rural health development.
- Myanmar has placed special emphasis on the Making Pregnancy Safer initiative. Collaboration between the reproductive health programme and other key programmes such as immunization and nutrition is being strengthened.
- The government is upgrading the state and division hospitals, opening new hospitals and clinics with the intention of improving the health status of the population.
- Many policies relating to the health sector such as population policy and environment policy have been formulated. A new national health policy has been developed.

Achievements

- Human resources for health have been augmented to ensure the provision of adequate and efficient health personnel for delivery of quality health care.

- Extensive research in health has been conducted although there is a need to utilize the results to improve the health system.
- All townships are being covered by the health promoting school programme.
- Community-based feeding centres (Village Food Banks) have been set up in villages for malnourished children.
- The DOTS programme covers all (100%) townships.
- Iodine deficiency disorders are on the verge of virtual elimination.
- Leprosy was eliminated in 2003.

Legislation

- The Myanmar Medical Council Law 2000 enables people to enjoy qualified and effective health care assistance. The law helps in improving the standard of health care.
- The Traditional Medicine Council Law 2000 provides a mechanism to supervise practitioners of traditional medicine and helps in its modernization.
- The Blood and Blood Products Law 2003 ensures availability of safe blood and blood products to the people.
- The Body Organ Donation Law 2004 helps in rehabilitation of persons who are disabled due to dysfunction of body organs.
- Tobacco advertisements were banned from the electronic media in 1997, from billboards in 2002, and from print media in 2003.

9 What are the constraints and challenges of the health system?

Financial constraints

- The total health expenditure in 2003 was 2.8% of GDP and nearly three-fourths of this was by private households. Government expenditure was less than 20% and there was substantial international assistance. Health has received greater priority recently but the financial constraints continue to be still severe.
- Financial constraints are affecting implemnetation of national health policy that encourages community participation in health activities, such as health improvement at village level by village health committees. Health education and promotion programme are also affected due to inadequate financial resources.

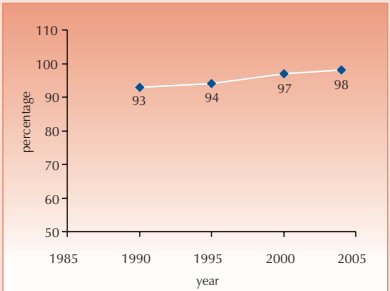
Expertise and other physical constraints

- Myanmar is facing a shortage of primary health care workers. The country needs to produce more nurses, midwives and basic health personnel to improve the current skill mix which is currently in favour of medical doctors.

Social constraints

Indicators	Latest available value	Year	Source
Inequalities – Gender			
Expectation of life at birth F:M			
Urban	1.07	2003	{1}
Rural	1.04	2003	{1}
Female share in employment (non-agricultural sector) (%)	38.2	2002	{4}
Seats held in National Convention – F (%)	6.0	2005	{4}
Ratio of girls to boys in primary schools (%)	98.4	2004	{4}

Ratio of girls to boys in primary education



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- Social and cultural barriers inhibit reproductive health programmes including expansion of birth spacing.

Health sector constraints

- As indicated in the national health policy, community participation in health activities is encouraged and the cooperation of NGOs promoted. The main constraints are lack of IEC material beside financial resources. For emergency preparedness, intersectoral coordination is to be strengthened beside additional trained personnel.
- There is a significant gap between the provision of drugs to the public health sector and the requirements resulting in a continuous shortage at the facility level. Local production is insufficient and foreign exchange is scarce for importing raw material.
- For prevention and control of locally endemic diseases, the main constraints are a low level of awareness, poor environmental sanitation, overload of work for peripheral health workers, and inadequate availability of transport for supervision.

Challenges

Nutrition

- Food production is more than what is required to meet the country's needs. Nevertheless, food and nutrition surveillance shows that malnutrition is still common.

Health services

- The health system has the potential to perform better.
- There is a need to adopt modern management methods for health system and services in accordance with best practices to improve the quality of health care and optimize the use of scarce resources.
- With an increasing trend towards privatization and a market-oriented economy, the poor are at a greater disadvantage. Inequities have increased and the safety net for the poor is not sufficient to protect their health. The key issue for the public sector is to protect the interests of the poor and the other vulnerable sections of society.
- The private sector is expected to make an increasing contribution to the health sector and alternative public health financing may be explored to reach the un-reached areas such as those close to the border.

Q10 What does the country hope to achieve in the near future in health?

- The main objectives of the Health Ministry are to enable every citizen to attain full life expectancy and enjoy longevity of life, and to ensure that every citizen is free from disease. The strategies to achieve these objectives are (i) widespread dissemination of health information and education, (ii) enhancing disease prevention activities, and (iii) providing effective treatment for prevailing diseases.
- Myanmar's Health Vision 2030 encompasses the long-term objectives. This includes: eradication and elimination of communicable diseases; universal coverage of health services; anticipating emerging diseases and arranging for their control; modernize Myanmar Traditional Medicine and help its extensive utilization by the people; indigenously produce all categories of human resources for health; and ensure sufficient availability of essential medicines and traditional medicines.
- The Five-year Reproductive Health Strategic Plan (2004-08) is designed to prevent maternal illness and address deficiencies in the system inhibiting essential and comprehensive obstetric care.
- The National Health Plan (2001-2006) expects improved health care coverage; reduced morbidity and improved health of the people; improved medical education; development of health research; development of traditional medicine; and improved health knowledge of the people through effective information, education and communication (IEC) activities.

11 How is WHO collaborating with the country?

Policy development and planning

- WHO has been a long-standing and an intimate partner in health sector development. The Ministry of Health accepts WHO as the technical lead agency and deeply appreciates the support provided.
- Technical backstopping is provided to the processes such as for coordination of aid by health development partners.
- Collaborative programmes include integrating health and human development in public policies, equitable access to health services, promoting and protecting health, and preventing and controlling specific health problems.
- WHO helped to develop the strategy for 'Vision 2020, The Right to Sight: Elimination of Avoidable Blindness'.

Health system management

- Technical support is provided to the process of national health plan and to strengthen national capacities for strategic planning and aid coordination.
- Technical support is provided to Health Management Information System development and coordination, including various systems such as for surveillance. This system would establish computer networking in all states and divisions.
- Strengthened National capacity in health systems research has been strengthened.
- Support was provided to develop a referral system for the country.
- Support was provided to evidence-based evaluation of traditional medicine.

Promotion of healthy lifestyles and settings

- Technical assistance in transforming the traditional maternal and child health concept to the comprehensive reproductive health approach was provided. Priority was given to capacity building

for need assessment in essential reproductive health needs and development of a plan of action.

- Technical assistance in capacity building for rural water supply development programme, water analysis and laboratory facilities, environmental engineering in sanitation and pollution control was provided.
- The Health Care Project for Adolescent Youth is being implemented as a WHO-funded programme.
- Smoking is among the most serious lifestyle problems in Myanmar, particularly in the young population. WHO support is provided in developing an information system base on tobacco issues of production, consumption and health status.

Prevention and control of priority diseases

- Support is being proved to the Ministry of Health in implementing effective communicable disease control programmes to reduce excess mortality, morbidity and disability, especially in populations with limited access to health services and to the poor in border areas.
- Assistance is provided in implementation of the multi-drug therapy strategy for elimination of leprosy.
- Efforts are being made to reduce case-fatality of dengue/DHF by establishing training wards with a standard set of equipment provided by WHO.
- Technical assistance is being provided to malaria control, including facilitating inter-country collaborative programmes for border areas using a bilateral and multi-lateral approach.
- Technical assistance is being provided in terms of expertise, training and diagnostic tools and drugs for controlling tuberculosis. The DOTS programme has been extended with WHO assistance.
- Help in developing a national strategy for control and management of major noncommunicable diseases including a surveillance system and training of health personnel has been provided.

Others

- A postgraduate medical education seminar conducted in 2005 in collaboration with WHO contributed to human resources development in health, especially at the postgraduate level.

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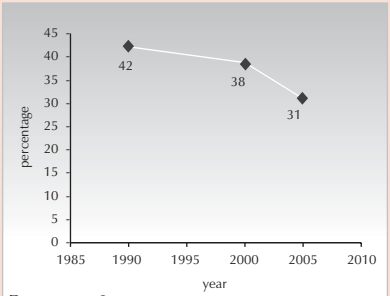
Nepal

Basic information	Latest available value	Year	Source
Total population (million)	25.8	2006	{23}
Area (sq.km.)	147,181		{1}
Density of population (per sq.km.)	175	2006	{C}
Administrative divisions	5 development regions, 14 zones and 75 districts		

Development	Latest available value	Year	Source
Gross national income (GNI) per capita (US$)	270	2005	{4}
Highest in the world – Norway	59590	2005	{4}
Highest in the Region – Thailand	2750	2005	{4}
Population below poverty line – Intl.$1 per day (%)	24.1	2003-2004	{4}
Lowest in the Region – Maldives	<1	2004	
Population below national poverty line (%)	31	2005	{3}
Lowest in the Region – Maldives	8	2004	
Adult literacy rate >15 years (%)	49	2004	{5}
Highest in the Region – DPR Korea	100	2003	
Net enrolment ratio primary (%)	84	2005	{3}
Highest in the Region – DPR Korea	100	2003	
Human Development Index	0.527	2004	{5}
Highest in the Region – Thailand	0.784	2004	
Human Poverty Index (%)	38.1	2006	{5}
Lowest in the Region – Thailand	9.3	2006	
Gender-Related Development Index	0.513	2006	{5}
Highest in the Region – Thailand	0.781	2006	

Percentage of population below national poverty line



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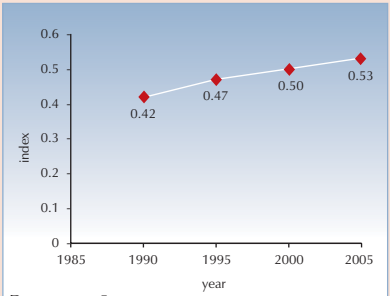
Human development index



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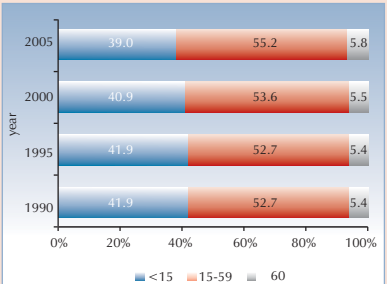
Salient basics

- Nepal is a landlocked country situated in the Himalayas.
- The Gross national income per capita (int $) is 1530. Nearly one-third population lives below national poverty line.
- Literacy is low, but the human development index exceeds 0.5.

1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population (million)	25.8	2006	{23}
Population growth rate per year (%)	2.25	2001	{3}
Urban population (%)	14	2001	{1}
Age-sex structure			
Sex ratio (F/1000M)	1000	2001	{1}
Children <15 years (%)	39	2001	{1}
Elderly >60 years (%)	6	2001	{1}
Highest in the world – Italy, Japan	26	2005	{7}
Highest in the Region – DPR Korea	12	2002	
Dependency ratio (%)	85	2001	{C}
Fertility			
Birth rate (per 1000 population)	28.4	2003-2005	{8}
Lowest in the world – Germany, Ukraine	8.0	2004	{10}
Lowest in the Region – Thailand	12.7	2002	
Total fertility rate (TFR) (per woman)	3.1	2003-2005	{8}
Lowest in the world – Ukraine	1.1	2004	{9}
Lowest in the Region – Thailand	1.6	2000	
Contraceptive prevalence (%)	48	2003-2005	{8}
Gross mortality			
Crude death rate (per 1000 population)	9.9	2001	{6}
Lowest in the world – UAE	1.0	2004	{10}
Lowest in the Region – Maldives	3.0	2005	

Percentage of population in different age groups



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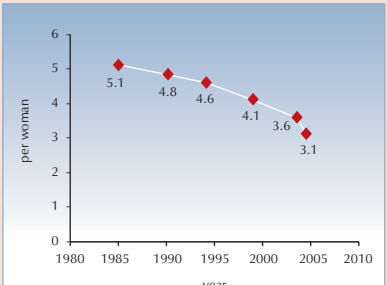
Total fertility per women



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Salient demographic features

- Nearly 85% of the people live in villages, in remote and difficult to access terrain.
- The population is predominantly children and the growth rate is high. Decline in fertility is slow but has accelerated recently.
- Total fertility is nearly three times the lowest in the world.

2 What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005	2015 (Target)
Poverty and hunger				
Population below minimum level of dietary energy consumption (%)	49	47	N/A	25
Under-weight (<-2SD) children aged 6-59 months (%)	57	48	38.6 (2006)	29
Child mortality				
Infant mortality rate (per 1000 live births)	108	64	48 (2006)	34
Under-five mortality rate (per 1000 live births)	162	91	61 (2006)	54
One-year-olds immunized against measles (%)	42	71	85	>90
Maternal health				
Maternal mortality ratio (per 100,000 live births)	515	415	281	134
Deliveries attended by health staff (%)	7	11	18.7	60
HIV/malaria/tuberculosis				
HIV prevalence in 15-49 years (per 100,000 population)	N/A	290	500	
Malaria prevalence (per 100,000 population at risk)	196	52	25	
Tuberculosis prevalence (per 100,000 population)	460	310	280	
Tuberculosis cases detected (%)	N/A	69	71	
Water and sanitation				
Population with access to improved water source (%)				
Combined	36	67	73	73
Rural	33	65	71	72
Urban	67	79	83	95
Population with access to improved sanitation (%)				
Combined	6	30	39	53
Rural	3	25	30	52
Urban	34	80	81	67

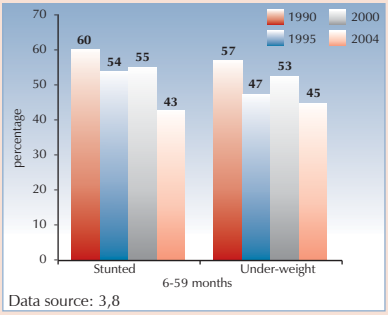
MDG progress

- Some targets, such as for water and sanitation and immunization have been achieved or are likely to be achieved. Others, such as for mortality and nutrition remain a challenge.

Q3 What are the major health problems?

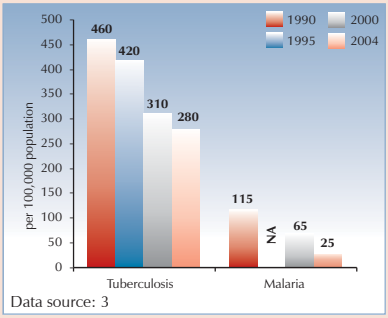
Indicators	Latest available value	Year	Source
In children under five years			
Low birth weight (%)	14.3	2006	{23}
Lowest in the Region – Indonesia	6	2002	
Stunted children (%)	49.3	2006	{23}
Lowest in the world – Croatia	1	1998-2004	{10}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children (%)	38.6	2006	{23}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{10}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Diarrhoeas-reported cases incidence (per 1000 children <5 years)	11	2003-2004	{11}
Acute respiratory infections – reported cases incidence (per 1000 children <5 years)	8	2003-2004	{11}
Other diseases			
Tuberculosis prevalence (per 100,000 population)	280	2005	{3}
Malaria prevalence (per 100,000 population)	25	2005	{CC}
HIV prevalence (per 100,000 population) – 15-49 years	500	2005	{3}
Diabetes prevalence (per 100,000 population)	1982	2000	{18}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	7.4	2002	{12}
Female	9.1	2002	{12}
As % of expected life at birth (ELB) lost			
Male	12.4	2002	{12}
Female	15.1	2002	{12}

Nutritional status of <5 years children by year



Data source: 3,8

Prevalence of tuberculosis and malaria by year



Data source: 3

Major health problems

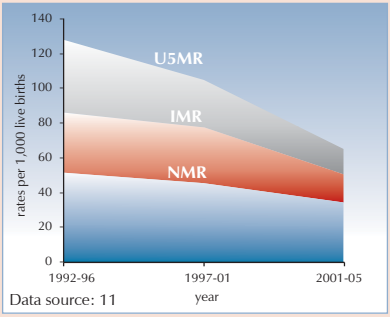
- Nepal's epidemiological transition is slow. Expectation of life is around 61 years.
- In women, nearly 15% of life's equivalent healthy years are lost due to diseases.
- Under-nutrition is wide-spread, particularly among children.
- HIV is emerging as a problem and tuberculosis continues to be a major threat.

4

What is the mortality profile?

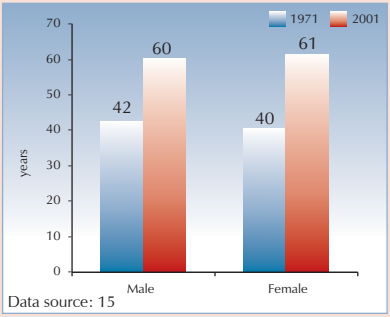
Indicators	Latest available value	Year	Source
Mortality rates			
Neonatal mortality rate (NMR) (per 1000 live births)	34	2001-2005	{8}
Lowest in the world – Singapore	1	2000	{9}
Lowest in the Region – Maldives	8	2005	
Infant mortality rate (IMR) (per 1000 live births)	48	2006	{23}
Lowest in the Region – Sri Lanka	11	2003	
Under-five mortality rate (U5MR) (per 1000 live births)	61	2006	{23}
Lowest in the world – Iceland, Singapore	3	2004	{10}
Lowest in the Region – Maldives, Srilanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	281	2006	{23}
Lowest in the Region – Thailand	14	2003	
Age at death			
Expectation of life at birth (ELB) (years)	61	2004	{13}
Highest in the world – Japan, Monaco	82	2004	{13}
Highest in the Region – Maldives, Srilanka	73	1996-2001	
Deaths under-five years (% of total deaths)	24	2005	{C}
Lowest in the Region – Thailand	4	2002	
Causes of death (percentage of total deaths)			
Three major causes of deaths (0-14 years) – Males			
Pneumonia	13	2001	{1}
Diarrhoea	12	2001	{1}
Measles	3	2001	{1}
Three major causes of adult deaths (≥15 years) – Males			
Asthma/Bronchitis	9	2001	{1}
Tuberculosis	5	2001	{1}
Cancer	4	2001	{1}
Three major causes of deaths (0-14 years) – Females			
Pneumonia	12	2001	{1}
Diarrhea	12	2001	{1}
Complication of Pregnancy and Delivery	9	2001	{1}
Three major causes of adult deaths (≥15 years) – Females			
Asthma/Bronchitis	9	2001	{1}
Cancer	5	2001	{1}
Complication of Pregnancy and Delivery	4	2001	{1}
Tuberculosis death rate (per 100,000 population)	23	2000	{3}
Tuberculosis deaths (% of total deaths)	3	2002	{20}
Cerebrovascular disease deaths (% of total deaths)	5	2002	{20}

Mortality rates of children



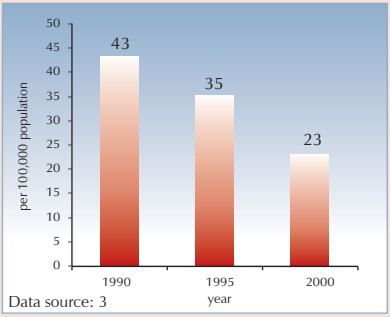
Data source: 11

Comparison of expectation of life at birth between males and females by years



Data source: 15

Tuberculosis death rates



Data source: 3

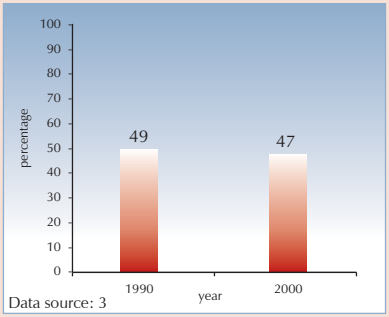
Mortality profile

- Nearly a quarter of deaths occur in children less than five years.
- Major causes of death are infections, particularly for child deaths among children.
- Diseases of the respiratory system are the major causes of deaths among adults.

Q 5 What resources are available for the health sector?

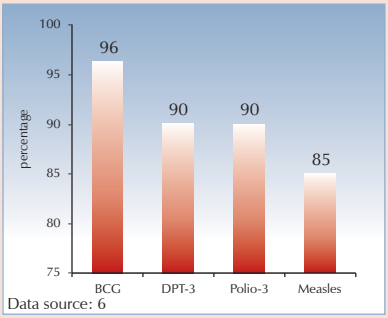
Indicators	Latest available value	Year	Source
Expenditure on health			
Percentage of GDP	5.3	2003	{12}
Highest in the world – USA	15.2	2003	{12}
Highest in the Region – Timor-Leste	9.6	2003	
Per capita (US$)	12	2003	{12}
Per capita (Intl.$)	64	2003	{12}
Highest in the world – USA (Intl.$)	5711	2003	{12}
Highest in the Region – Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2450	2001-2003	{14}
Services			
Primary health centres (per 100,000 population)	0.8	2001-2002	C
Antenatal care coverage (at least one visit) (%)	44	2006	{23}
Deliveries by qualified attendant (%)	18.7	2006	{23}
Children immunized (%)			
BCG	87	2005	{24}
DPT-3	75	2005	{24}
Polio-3	78	2005	{24}
Measles	74	2005	{24}
Hospital beds (per 10,000 population)	50	2006	{CC}
Highest in the world – Monaco	196	1995	{9}
Highest in the Region – DPR Korea	132	2002	
Human resources			
Doctors of modern system (per 10,000 population)	2	2004	{9}
Highest in the world – Cuba	59	2002	{13}
Highest in the Region – DPR Korea	32	2003	{13}
Nurses (per 10,000 population)	2.0	2004	{13}
Highest in the Region – DPR Korea	37	2003	{13}
Auxillary Nursing Midwives (per 10,000 population)	2.4	2004	{13}
Dentists (per 10,000 population)	0.1	2004	{13}
Pharmacists (per 10,000 population)	0.1	2004	{13}
Public and Environmental Health Workers (per 10,000 population)	0.1	2004	{13}
Community Health Workers (per 10,000 population)	6.3	2004	{13}
Lab Technicians (per 10,000 population)	1.2	2004	{13}
Other Health workers (per 10,000 population)	0.7	2004	{13}

Percentage of population below dietary requirements



Data source: 3

Percentage of immunization coverage 2003-04



Data source: 6

Health resources

- Health expenditure at 64 Intl.$ per capita is low.
- Basic facilities such as safe drinking water and sanitation, doctors, nurses and beds continue to be inadequate, particularly in rural areas.
- Immunization has picked up but antenatal coverage and deliveries by skilled attendant deserve more attention.

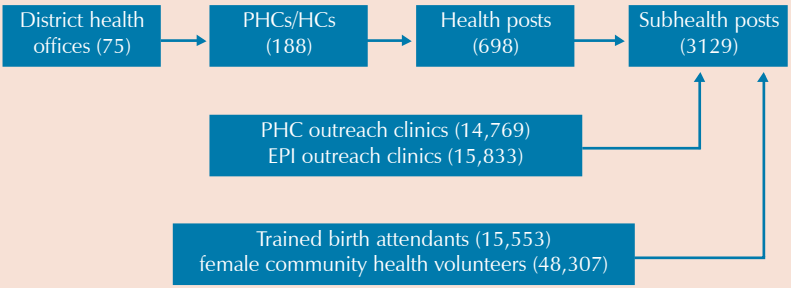
6 What is the system of health governance?

Organization

Nepal's Ministry of Health has three departments:

- Department of Ayurveda
- Department of Health Services
- Department of Drug Administration

The Department of Health Services has six divisions (Management, Family Health, Child Health, Epidemiology and Disease Control, Logistic Management, and Leprosy Control). Recently, Leprosy Control has been designated as a section under Epidemiology and Disease Control. It runs five technical centres (Tuberculosis, Training, Health Information and Communication, AIDS and STD Control, and Public Health Laboratory). There is a Training Centre and a Medical Store in each of the five Regions but there is only one Regional Hospital, one Regional Laboratory and one Regional TB Centre. There are zonal Hospitals in 11 of the 14 zones. Each of the 75 districts has a District (Public) Health Office but the number of district hospitals is only 62.



Primary Health Care Centre/Health Centre (PHC) is delimited to the electoral constituency. Out of 205 such constituencies, PHCs are present in 188. These are served by 698 Health Posts and 3129 SubHealth Posts. Volunteers such as 15,553 Trained Birth Attendants (TBAs) and 48,307 Female Community Health Volunteers (FCHVs) also refer the cases to the health facilities. FCHVs focus on motivation and education of mothers and community members for the promotion of

safe motherhood, child health, family planning, and other community health services. The system also works as a supportive mechanism for lower levels by providing logistical, financial, supervisory and technical support from the centre to the periphery.

Ancillaries

- Nepal has a Reproductive Health Steering Committee at the central level and a Reproductive Health Coordination Committee in 33 districts.
- The Safe Motherhood programme now covers most of the districts.
- For year-round availability of essential drugs, a Community Drug Programme has been initiated in most of the districts.
- The Department of Drug Administration has developed and distributed a Standard Treatment Schedule for Health Posts and SubHealth Posts to encourage and enforce rational use of drugs. The Nepal Drug Research Laboratory tests and analyse medicines and works as the national drug control laboratory.
- There are some non-profit hospital and many private-sector hospitals in urban areas. Out of a total of 9881 hospital beds, 2285 (23%) are in the private sector.
- There is a NCD focal point with a NCD committee consisting of subcommittees on Diabetes Melliatus, Cancer, Mental Health and Oral health.

Private sector

The health care system is mostly run by the government. Yet, nearly one-third beds are in the private sector. These comprise those run by NGOs such as missions, Lions clubs and associations. There are also some private nursing homes. Due to recent rapid growth, there are at least 9 private hospitals and at least 10,000 private pharmacies in the country.

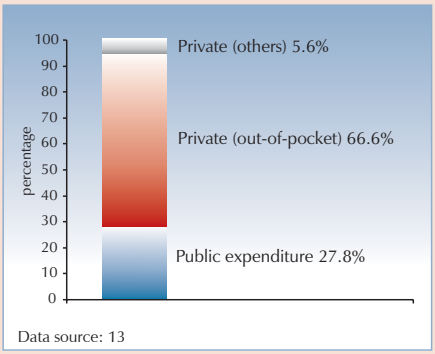
Traditional system

A large segment of the population benefits from the Ayurveda system, mostly in conjunction with the modern system. The Department of Ayurveda runs one central level hospital (100 bedded)—Naradevi Ayurvedic Hospital with specialized services, one Regional Hospital (30-bedded) in Dang, 14 Zonal Ayurvedic Dispensaries, 59 District Ayurveda Health Centres and 214 rural dispensaries. Nearly 200 doctors are registered with the Nepal Ayurveda Council. This department also supports homeopathic and Unani medicines although they are not practiced on a large scale.

Q7 Who pays for health care?

Indicators	Latest available value	Year	Source
Government expenditure on health			
Out of total health expenditure (%)	28	2003	{13}
Per capita (US$)	3	2003	{13}
Per capita (Intl.$)	18	2003	{13}
Highest in the world – Monaco (Intl.$)	3403	2003	{13}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (%)	72	2003	{13}
Per capita (US$)	9	2003	{C}
Per capita (Intl.$)	46	2003	{C}
Lowest in the Region – DPR Korea	0.4	2004	
Out-of-pocket expenditure (% of private expenditure on health)	92	2003	{13}
Per capita (US$)	8	2003	{C}
Per capita (Intl.$)	42	2003	{C}
Lowest in the world – Tuvalu	13	2003	{13}
Lowest in the Region – Timor Leste	26	2004	
Insurance coverage			
Social security expenditure on health out of general govt. expenditure on health (%)	<0.5	2003	{13}

Health expenditure



Data source: 13

Health expenditure

- Despite widespread poverty, government expenditure on health is meagre. Nearly three-fourths is met by private sources, mostly out-of-pocket.
- Social security for health care is limited.

8 What are the recent reforms and achievements of the health system?

Health sector reforms

- A Health Sector Reforms Committee has recently have established under the Chairmanship of the Health Minister. The Committee is expected to plan and coordinate the resources available for health sector programmes from all contributors. The group is expected to mobilize more resources and increase the fund absorption capacity of the system.
- For planning health sector reforms, 14 studies have been carried out on the health situation in different areas, and initiatives taken to extend the health services to all segments of the population.
- There is a policy now for greater involvement of the private sector in hospital services.
- Information systems are developing well. The Health Management Information System (HMIS), Logistics Management Information (LMIS), and Fiscal Management Information System (FMIS) are taking shape. Since the initiation of FMIS, staff have been trained, forms designed and regular reporting made more strict.
- An external development forum was established in 2004. Since 2005, this forum holds discussion twice a year with the Government on annual planning and evaluation in a Joint Annual Review using the Nepal Health Sector Programme Implementation Plan as a reference

Achievements

- The Health budget is 6% of the national budget.
- Breastfeeding is nearly universal with a median duration of 34 months. Feeding within the first hour of birth and within the first day, which was low, has improved in the last few years. But exclusive breastfeeding is still low.
- Hepatitis B has been added to EPI across the whole country.

Legislation

- The Smoking (Prohibition and Control) Act 2001 is awaiting parliament approval. A five-year (2004-08) action plan has been devised to control smoking. Smoking in public places is banned and advertisements are not allowed. There is a health tax on tobacco products and excise duty on tobacco has been increased.
- The Diesel-driven 3-wheelers are banned in Kathmandu. Vehicles older than 20 years must be taken off the road.
- Eleventh amendment to the civil code has legalized abortion services under certain conditions. The government has recently approved the Safe Abortion Service Procedures 2004. Accordingly, the Maternal Hospital in Kathmandu has started providing abortion-related services since March 2004.
- A quality assurance policy draft and Noncommunicable Disesase policy draft are in the process of being endorsed.
- A mental health legislation draft is in the process of being endorsed.

9 What are the constraints and challenges of the health system?

Financial constraints

- GNI is only 1530 international dollars per capita, and 31% of the population is below the national poverty line. For health, 6% of the national budget is allocated.
- Distribution of funds is mainly urban-centric. In addition, only 68% of the budget allocated is actually utilized.
- People spend a significant amount of money on health care from their pocket.

Expertise and other physical constraints

- Although lack of trained manpower including physicians and inadequate infrastructure are definite problems the bigger problem is due to inadequate management.
- Health awareness in the population is poor.
- A combination of the above two has led to a shortage of auxiliary nurse mid-wives (ANMs), problems with referral, maternity homes not operationalized in many districts, low antenatal care coverage, and low coverage of deliveries by skilled attendant.

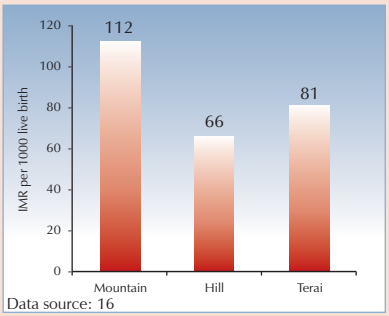
Health sector constraints

- Those include poor management of public sector health facilities and institutions, poor compliance with existing guidelines and quality of care protocols; lack of awareness about roles and responsibilities of health functionaries; absence of an effective system to ensure quality and fair pricing of private sector services; and clear policies for human resource development and management.
- Because of resource constraints and inadequate motivation of the health staff, PHCs are not able to deliver proper services and

Indicators	Latest available value	Year	Source
Social constraints			
Inequalities – Gender			
Expectation of life at birth F:M	1.00	2004	{13}
Female share in employment (non-agricultural sector) (%)	18	2000	{3}
Seats held in parliament – F (%)	5.8	2000	{3}
Ratio of girls to boys in primary schools (%)	86	2004	{3}
Inequalities – Spatial			
Total fertility rate (per woman)			
Urban	2.1	2003-2005	{8}
Rural	3.3	2003-2005	{8}
Infant mortality rate (per 1000 live births)			
Urban	37	2006	{23}
Rural	64	2006	{23}
Water supply(%)			
Urban	93	2005	{3}
Rural	79	2005	{3}

Females are at a disadvantage, and there are area-wise inequalities exist.

Ecological distribution of infant mortality rate in 2001



Data source: 16

are not able to attract the needy. Only 9% of deliveries in 2001 were conducted in a health facility and only for 13% a health professional was present. This increased upto 20% in 2005. A major constraint is the lack of physicians and nurses at PHC level, particularly the remote areas, where most of the posts are vacant.

- Many people may have faith in alternative medicine, particularly Ayurveda, but the facilities available for this system are meagre.

- Information systems have improved but have their limitation in providing critical information needed to evaluate the health system and to take immediate corrective steps.
- The laboratory network needs to be strengthened to support communicable diseases diagnosis and to establish outbreak etiology.

Challenges

Nutrition

- The high incidence of low birth-weight and under-weight and stunted children underscores the need to substantially increase the emphasis on nutrition. Particular attention is needed for maternal and child nutrition.
- Seasonal "hunger gaps" during winter, droughts and monsoon in pockets of rural areas undermine food security.

Health services

- There is a need to strengthen PHCs to meet all basic health needs of the people.
- Outreach programme for antenatal care and deliveries by trained workers need strengthening.
- In many places, the hospital manager is a clinician who also has to deal with outpatient.

Public health

- Nepal is one of the few countries where leprosy is yet to be eliminated.
- The public health system capacity has to be improved to respond in a timely and efficient manner to handle outbreaks.
- A Laboratory-based, integrated disease surveillance system covering both the public and private sectors needs to be initiated.

Training the staff

- Training facilities should be augmented for women to be qualified ANMs. The government is upgrading the Maternal and Child Health Worker to ANM by providing additional training.
- All vacant positions in the health sector should be filled and steps taken to fully utilize the funds ear-marked for health.

The work culture

- The staff should be motivated to do better through a system of rewards and recognition, or any other mechanism considered appropriate.
- Duties for each category of staff for which (s)he can be held responsible should be clearly notified. Supervision should be strengthened so that any lapse can be immediately rectified.
- Pockets that are doing well or can do better should be identified, and the feasibility to use them as examples for others to emulate examined.

Q 10 What does the country hope to achieve in the near future in health?

The second Long-Term Health Plan (1997-2017) of Nepal, aims to benefit the most vulnerable–women and children, the rural population, the poor and the under-privileged, and the marginalized. It aims equitable access by extending quality services to remote areas with full community participation and gender sensitivity by technically competent and socially responsible health personnel. The main targets are as follows:

- Reduce infant mortality rate from 75 per 1000 live births to 34.
- Reduce under-five mortality from 118 per 1000 live births to 61.
- Reduce total fertility rate from 4.58 to 3.05.
- Increase life expectancy from 56 to 69 years.
- Reduce maternal mortality ratio from 475 per 100,000 live births to 250.
- Increase the contraceptive prevalence rate from 30% to 58%.
- Reduce low weight births to 12%.
- Provide essential health care services to 90% of the population within 30 minutes of travel.
- Make essential drugs available round the year in 100% of facilities.
- Equip 100% facilities with full staff to deliver essential health care services.
- Increase total health expenditure to 10% of total government expenditure.

MDG targets are an improvement over the targets in the national plans, and should be achieved sooner.

All this is proposed to be achieved by:

- Developing an effective health system for the provision of affordable and accessible essential health care services.
- Promoting a public-private partnership for the promotion of health care.

- Decentralizing the health system and ensuring a participatory approach at all levels.
- Improving the quality of health system by total quality management of human, financial, and physical resources.
- Strengthening and expanding Ayurveda services by which locally available medicinal plants, encouraging a positive attitudes towards health care, and establishment of three regional Ayurvedic hospitals and a research centre.

11 How is WHO collaborating with the country?

Policy development and planning

- WHO initiated a sector-wide approach for joint planning and programming based on the second Long-Term Health Plan and health section of the 10th Five-Year Development Plan. Also technical support to the MDGs, Health Sector Strategy and Nepal Health Sector Programme Implementation Plan was provided.
- Commission on Macroeconomics and Health that may scale-up essential health care services and help in reaching the poor was supported.
- The establishment of an Apex Body to promote coordination among the Ministry of Health, different eye hospitals, and development partners including NGOs in the planning and implementation of blindness prevention activities was supported.
- The key areas identified for country cooperation are: equitable health care financing; increased access of the underprivileged to services; integrated disease surveillance; prevention and control of communicable and chronic diseases; rationalization of human resource development and management; reduction of maternal and neonatal mortality; promotion of healthier physical environment; and health system capacity building for emergency preparedness and response.

Health system management

- WHO supported the establishment of a joint steering committee for identification of Essential Health Care Services for strengthening the district health system. WHO advocating and supporting decentralization of health services.
- Support has been provided for the development and implementation of the clinical protocol and case management guidelines for strengthening the capacity for the Safe Motherhood Programme at central, regional and district levels, and for enhancing coordination with other development partners and NGOs.

Promotion of healthy lifestyles and settings

- Support has been provided and priority given for health promotion activities in all collaborative programmes including environmental health, water and sanitation, tobacco control, noncommunicable diseases, violence and injuries. WHO is supporting the NCD risk factor survey in four districts
- Water supply and environmental sanitation is high on the agenda. Food hygiene and food safety have yet to gain significant momentum although health education of the public on these aspects has been a priority program over the years.
- WHO is providing community mental health and psychosocial support for post-conflict rehabilitation.

Prevention and control of priority diseases

- The Polio Eradication Programme is continuing to get assistance. Jointly with UNICEF, WHO supported the formation and the work of the Inter-agency Co-ordination Committee and also provided support for the Global Alliance for Vaccines and Immunization (GAVI).
- WHO maintains a strong relationship with many partners in the leprosy elimination programme, particularly a whole range of INGOs. In its future work, WHO will further support the efforts of the government towards eliminating leprosy.
- There is strong collaboration between WHO and the National Tuberculosis Centre, which is also the SAARC tuberculosis centre.
- The Blindness Prevention Programme is very active and is benefiting WHO's VISION 2020 initiative as well as inputs from national and international NGOs.
- WHO is championing kala-azar elimination in Nepal in the context of the regional initiative involving Bangladesh, India and Nepal.
- Support has been provided for the development and implementation of the National Avian Influenza and Influenza Pandemics Preparedness and Response Operational Plan in partnership with the World Bank, FAO, UNICEF and UNDP.
- The National Malaria Control Programme receives continued assistance and support especially in creating the evidence base for decision making.
- WHO is backstopping the Lymphatic Filariasis Elimination Programme by ensuring the monitoring and surveillance component and critical supplies.

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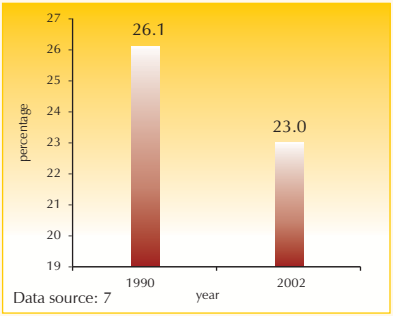
Sri Lanka

Basic information	Latest available value	Year	Source
Total population (million)	19.67	2005	{26}
Area (sq.km.)	62,705		{1}
Density of population (per sq.km.)	314	2005	{26}
Administrative divisions	8 provinces, 25 districts and 321 divisional secretary areas		

Development	Latest available value	Year	Source
Gross national income (GNI) per capita (US$)	1160	2005	{5}
Highest in the world – Norway	59590	2005	{5}
Highest in the Region – Thailand	2750	2005	{5}
Population below poverty line – Intl.$1 per day (%)	23	2002	{6}
Lowest in the Region – Maldives	<1	2002	
Population below national poverty line (%)	23	2002	{7}
Lowest in the Region – Maldives	8	2004	
Adult literacy rate >15 years (%)	90	1994	{1}
Highest in the Region – DPR Korea	100	2003	
Net enrolment ratio primary (%)	96	2002	{7}
Highest in the Region – DPR Korea	100	2003	
Human Development Index	0.755	2004	{8}
Highest in the Region – Thailand	0.784	2004	
Human Poverty Index (%)	17.7	2006	{8}
Lowest in the Region – Thailand	9.3	2006	
Gender-Related Development Index	0.749	2006	{8}
Highest in the Region – Thailand	0.781	2006	

Percentage of population below national poverty line



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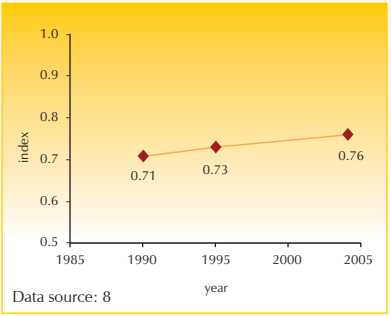
Human development Index



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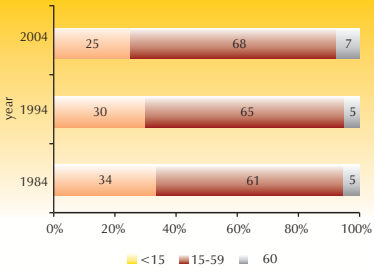
Salient basics

- The country has achieved with relatively high standards of social and health development compared with countries with similar economic development around the world.
- The case of Sri Lanka is often cited as the "support-led" strategy where around 4% of GDP has been redistributed to households over the years in the form of free education and health services.

Q1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population (million)	19.67	2005	{26}
Population growth rate per year (%)	1.2	2004	{3}
Urban population (%)	15	2001	{9}
Age-sex structure			
Sex ratio (F/1000M)	1016	2004	{3}
Children <15 years (%)	25	2004	{3}
Elderly >60 years (%)	11	2004	{17}
Highest in the world – Italy, Japan	26	2005	{17}
Highest in the Region – DPR Korea	12	2002	
Dependency ratio (<15 and 65+) (%)	46	2004	{C}
Fertility			
Birth rate (per 1000 population)	18.5	2004	{3}
Lowest in the world – Germany, Ukraine	8.0	2004	{10}
Lowest in the Region – Thailand	12.7	2002	
Total fertility rate (TFR) (per woman)	1.9	2000	{3}
Lowest in the world – Ukraine	1.1	2004	{11}
Lowest in the Region – Thailand	1.6	2000	
Contraceptive prevalence (%)	70	2000	{1}
Gross mortality			
Crude death rate (per 1000 population)	5.8	2004	{3}
Lowest in the world – UAE	1.0	2004	{10}
Lowest in the Region – Maldives	3.0	2005	

Percentage of population in different age groups



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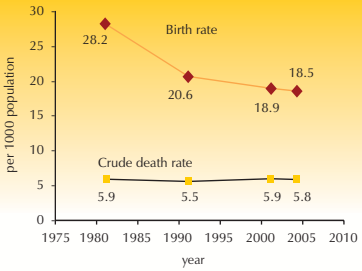
Birth rate and crude death rate



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Salient demographic features

- Sri Lanka is one of the few countries in the Region with a favourable sex ratio.
- The working population (15-64 years) is continuously increasing, indicating a demographic bonus.
- The death rate has been low in Sri Lanka for at a least quarter of a century, indicating that the country achieved success in this area a long time ago.

Q 2 What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005	2015 (Target)
Poverty and hunger				
Population below minimum level of dietary energy consumption (%)	51	47	N/A	25
Under-weight (<-2SD) children	38 (1993)	29	N/A	19
Child mortality				
Infant mortality rate (per 1000 live births)	19	12	11 (2001-05)	7
Under-five mortality rate (per 1000 live births)	22 (1991)	19	16	8
One-year-olds immunized against measles (%)	80	88	99 (2003)	99
Maternal health				
Maternal mortality ratio (per 100,000 live births)	92	47 (2001)	N/A	36
Deliveries attended by health staff (%)	N/A	97 (2001)	N/A	99
HIV/malaria/tuberculosis				
HIV prevalence in 15-49 years (per 100,000 population)	N/A	N/A	<100	
Malaria incidence (per 100,000 population at risk)	1520 (1994)	350 (2001)	422 (2002)	
Tuberculosis incidence (per 100,000 population)	39 (1994)	44 (2001)	60 (2004)	
Tuberculosis cases detected and cured under DOTS (%)	N/A	75 (2001)	N/A	
Water and sanitation				
Population with access to improved water source (%)				
Combined	72 (1994)	82 (2001)	N/A	86
Rural	N/A	72 (2002)	N/A	
Urban	N/A	99 (2002)	N/A	
Population with access to improved sanitation (%)				
Combined	73 (1994)	80 (2001)	N/A	93
Rural	N/A	89 (2002)	N/A	
Urban	N/A	98 (2002)	N/A	

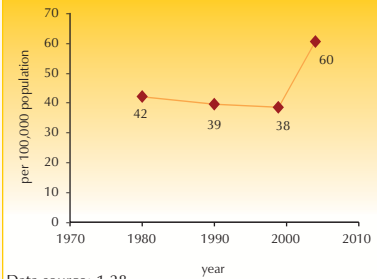
MDG progress

- Tuberculosis incidence has increased.
- More than half of the population is below the minimum level of dietary energy consumption.
- All other health-related targets are on track.

Q 3 What are the major health problems?

Indicators	Latest available value	Year	Source
In children under five years			
Low birth weight (%) (Live births in govt. hospitals)	17	2003	{1}
Lowest in the Region – Indonesia	6	2002	
Stunted children (%)	14	2000	{7}
Lowest in the world – Croatia	1	1998-2004	{10}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children (%)	29	2000	{7}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{10}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Diarrhoeas – 2-week incidence (per 1000 children <5 years)	67	2000	{29}
Other diseases			
Tuberculosis incidence (per 100,000 population)	60	2004	{28}
Malaria incidence (per 100,000 population)	422	2002	{12}
Leprosy prevalence (per 100,000 population)	8	2002	{12}
Filaria incidence (per 100,000 population)	3	2003	{9}
Dengue incidence (per 100,000 population)	30	2005	{6}
HIV prevalence (per 100,000 population) 15-49 years	<100	2003	{13}
Diabetes prevalence (per 100,000 population)	3522	2000	{14}
Breast cancer incidence (per 100,000 population)	14	2000	{6}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	8.0	2002	{15}
Female	10.3	2002	{15}
As % of expected life at birth (ELB) lost			
Male	11.8	2002	{15}
Female	13.9	2002	{15}

Tuberculosis incidence per 100,000 population



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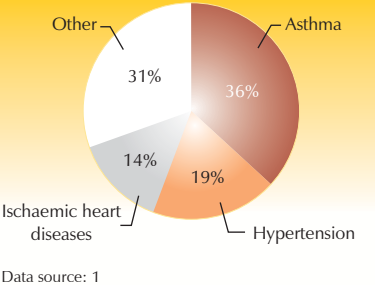
Major diseases in 2002



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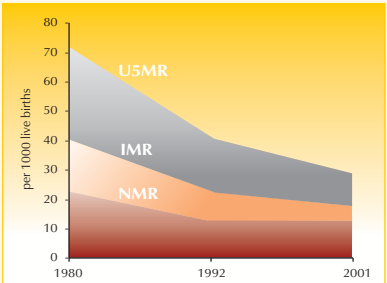
Major health problems

- The rapid demographic and epidemiological transition is influencing the disease pattern in the country.
- The incidence of tuberculosis has recently increased after showing a decline.
- High diabetes prevalence may indicate that chronic diseases are increasing.

Q4 What is the mortality profile?

Indicators	Latest available value	Year	Source
Mortality rates			
Infant mortality rate (IMR) (per 1000 live births)	11	2003	{9}
Lowest in the Region - Sri Lanka	11	2003	
Under-five mortality rate (U5MR) (per 1000 live births)	16	2000	{9}
Lowest in the world - Iceland, Singapore	3	2004	{10}
Lowest in the Region - Maldives, Sri Lanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	47	2001	{12}
Lowest in the Region - Thailand	14	2003	
Age at death			
Expectation of life at birth (ELB) (years)	73	1996-2001	{1}
Highest in the world - Japan, Monaco	82	2004	{18}
Highest in the Region - Maldives, Sri Lanka	73	1996-2001	
Deaths under-five years (% of of total deaths)	5	2000	{C}
Lowest in the Region - Thailand	4	2002	
Causes of death (percentage of total death)			
Leading causes of hospital deaths (% of total deaths in specific age-sex)			
Ischaemic heart diseases	10	2002	{12}
Diseases of gastro-intestinal tract	9	2002	{12}
Pulmonany heart diseases and diseases of pulmonary circulation	8	2002	{12}
Cardiovascular diseases	7	2002	{12}
Malaria death rate (per 100,000 population)	0.3	2001	{7}
Tuberculosis death rate (per 100,000 population)	2	2001	{7}
Cancer death rate (per 100,000 population)	35	1996	{6}
Diabetes death rate (per 100,000 population)	9	1996	{6}
Chronic Obstructive Pulmonary Diseases (COPD) (% of total death)	7	2002	{16}
Cerebrovascular disease deaths (% of total deaths)	9	2002	{16}

Mortality rates



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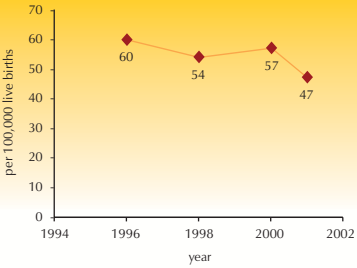
Maternal mortality ratio



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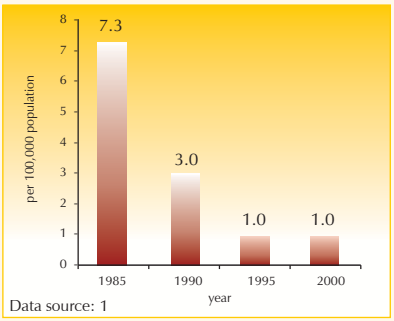
Diarrhoea death rate



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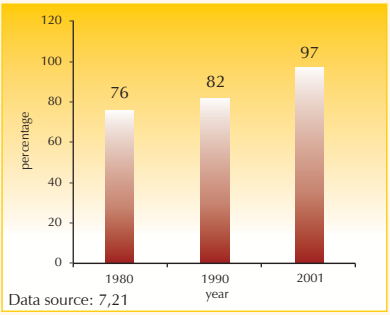
Mortality profile

- Mortality, including child mortality is low .
- Maternal mortality is declining.
- Heart diseases are the leading cause of death.
- Life expectancy is among the highest in the Region.

5 What resources are available for the health sector?

Indicators	Latest available value	Year	Source
Expenditure on health			
Percentage of GDP	3.5	2003	{18}
Highest in the world - USA	15.2	2003	{18}
Highest in the Region - Timor-Leste	9.6	2003	
Per capita (US$)	31	2003	{18}
Per capita (Intl.$)	121	2003	{18}
Highest in the world - USA (Intl.$)	5711	2003	{18}
Highest in the Region - Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2390	2001-2003	{19}
Services			
Pregnant women attended by trained personnel (%)	97	2000	{1}
Pregnant women immunized with TT(%)	96	2003	{20}
Deliveries by qualified attendant (%)	97	2001	{7}
Children immunized (%)			
BCG	99	2005	{30}
DPT-3	99	2005	{30}
Polio-3	99	2005	{30}
Measles	99	2005	{30}
Beds (per 10,000 population)	31.0	2004	{4}
Highest in the world - Monaco	196	1995	{11}
Highest in the Region - DPR Korea	132	2002	
Human Resources			
Doctors of modern system (per 10,000 population)	6.0	2006	{27}
Highest in the world - Cuba	59	2002	{18}
Highest in the Region - DPR Korea	32	2003	{18}
Doctors of Ayurvedic medicine systems (per 10,000 population)	9.0	2003	{4}
Nurses (per 10,000 population)	14.0	2006	{27}
Highest in the Region - DPR Korea	37	2003	{18}
Midwives (per 10,000 population)	1.6	2004	{18}
Dentists (per 10,000 population)	0.6	2004	{18}
Pharmacists (per 10,000 population)	0.6	2004	{18}
Public and Environmental Health Workers (per 10,000 population)	0.8	2004	{18}
Lab Technicians (per 10,000 population)	0.7	2004	{18}
Other Health workers (per 10,000 population)	0.8	2004	{18}

Percentage of births attended



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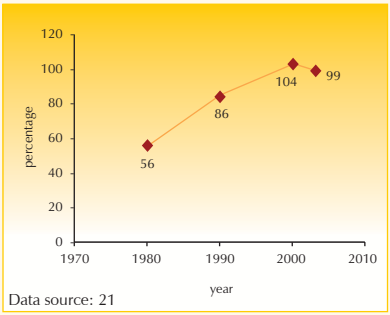
Percentage of DPT3 coverage



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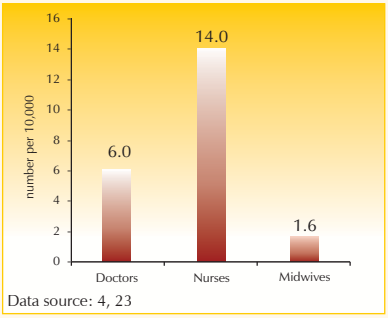
Human resources per 10,000 population



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Health resources

- The total expenditure on health at 3.5% of GDP is higher than in some other countries in the Region.
- Service coverage is more than 90%.
- Human resources are better than in many other countries in the Region.
- There are more Ayurvedic practitioners than doctors of modern (allopath) system.

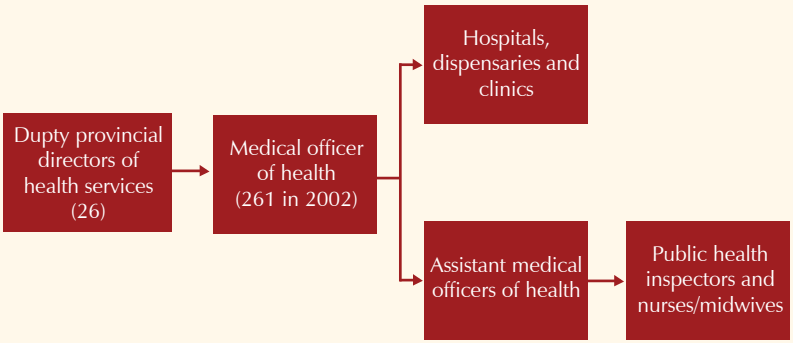
Q 6 What is the system of health governance?

Organization

The National Health Council is presided over by the Prime Minister. It is supported by a National Advisory Committee and task forces of experts to deal with specific health problems.

The Ministry of Health is assisted by the Director-General of Health Services. The central Ministry is primarily responsible for the policies, medical and paramedical education, management of teaching and specialized medical institutions, and bulk purchase of medical requisites.

The health services are devolved to the provinces. The eight Provincial Directors of Health Services are totally responsible for management and effective implementation of health services in the respective provinces.



The Deputy Provincial Director of Health Services (DPDHS) generally works at the district level. Each DPDHS area is sub divided into several Medical Officer of Health (MOH) areas where preventive

and promotive health care services are provided through the field staff, and curative services through hospitals, dispensaries and clinics. Most MOH areas cover less than 100,000 population.

The Assistant Medical Officer of Health provides services at the Health Centre level and nurses/midwives work at the village level.

In 2003, Sri Lanka had 607 hospitals and 400 central dispensaries.

Private sector

The public sector provides health care for nearly 60% of the population and caters to 95% of inpatient care. The private sector provides mainly curative care, which is estimated to be nearly 50% of outpatient care. This is largely concentrated in urban and suburban areas.

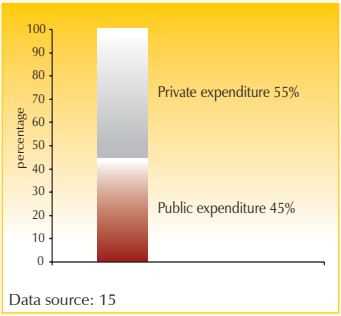
Traditional system

The public sector provides care under allopathy and ayurvedic systems. But there are private practioners of Unani, Siddha and Homeopathy systems as well. Nearly 60% of the rural population relies on traditional and natural medicine for their primary health care. The Ministry of Indigenous Medicine was established in 1994 that has set-up traditional medicine dispensaries and hospitals. These provide some medical care to the user.

Q7 Who pays for health care?

Indicators	Latest available value	Year	Source
Government expenditure on health			
Out of total health expenditure (%)	45	2003	{18}
Per capita (US$)	14	2003	{18}
Per capita (Intl.$)	55	2003	{18}
Highest in the world – Monaco (Intl.$)	3403	2003	{18}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (%)	55	2003	{18}
Per capita (US$)	17	2003	{C}
Per capita (Intl.$)	67	2003	{C}
Lowest in the Region – DPR Korea	0.4	2004	
Out-of-pocket expenditure (% of private expenditure on health)	89	2003	{18}
Per capita (US$)	15	2003	{C}
Per capita (Intl.$)	59	2003	{C}
Lowest in the world – Tuvalu	13	2003	{18}
Lowest in the Region – Timor Leste	26	2004	
Insurance coverage			
Social security expenditure on health out of general govt. expenditure on health (%)	0.3	2003	{16}

Health expenditure



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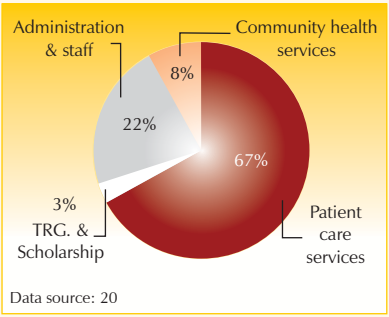
Expenditure items in 2001



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Health expenditure

- The share of private expenditure on health is more than the government expenditure.
- Out-of-pocket expenditure increased from 44% of the total health expenditure in 1997 to more than 50% in 2003.

What are the recent reforms and achievements of the health system?

Health sector reforms

- Inter-sectoral action and the contribution of health-related sectors has paved the way for adopting new strategies and timely decision-making for improving the health sector, and strengthing health development.
- Health for All 2000 necessitated orientation of primary health workers to community health, restructuring of training programmes and curricula to produce personnel of required skills and competencies, and training and recruitment of health volunteers.
- Recognizing community participation as an important ingredient, health volunteers have been used to assist government staff, especially in rural areas. Community action has helped to improve activities relating to early childhood development. Health Committees have been established at village, district and divisional levels.
- Significant improvements have been made in the health manpower situation due to the country's strategic policy using the primary health care approach. The number of midwives and public health inspectors has increased although they are still short of the requirement.
- The private sector is being encouraged and new regulations are underway with a view to provide good quality health services to at least those who can afford to pay.
- In 2005, a new national mental health policy and the national medicinal and drugs policy were finalized.
- A locational management programme is being conducted by the Family Health Bureau to promote breastfeeding at the periphery. Some hospitals have been declared "Baby Friendly Hospital". The Sri Lanka breastfeeding code has been effective in regulating the sale of breastmilk substitutes and related products.
- The Health Master Plan is being launched which specifies a 10-year strategy for health sector management.

Achievements

- Sri Lanka has shown tremendous improvement in demographic and epidemiological indicators in the recent past.
- Infant mortality declined to 11.2 per 1000 live births in 2003 and the total fertility rate in 2000 was low at 1.9. Immunization coverage is more than 90% in all districts.
- Efforts to prevent and control communicable diseases have resulted in a marked reduction in vaccine-preventable and vector-borne illnesses.

Legislation

- The Provisional Food (Genetically Modified Foods) Regulations, 2001, prohibit the importation, manufacture for commercial purposes, transportation, storage, distribution, etc., of any food that has been genetically modified.
- Act no. 50 of 1998 provides for the establishment of the National Child Protection Authority for the purpose of formulating a national policy on the prevention of child abuse.

9 What are the constraints and challenges of the health system?

Financial constraints

- The current expenditure by the government is not able to meet the needs. Tax-based financing is insufficient. Social health insurance needs more attention.
- Health services personnel account for a large share (78%) of the total health spending. Preventive and public health expenditure declined to 6% of the national budget at the national level in 1999 from 11% in 1990.

Expertise and other physical constraints

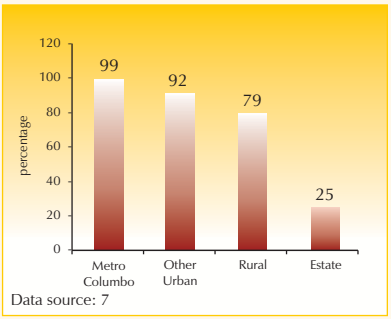
- There is a serious shortage of nurses and other paramedical staff. In addition, there is geographic imbalance, exacerbated by the unwillingness of some health professionals to work in peripheral areas. This has resulted in concentration of health workers in the large cities.
- A mismatch exists between the skill available and the skill needs in different health facilities, resulting in inefficient utilization of resources, and increasing the cost. There is a gap between expected job performance and training.

Social constraints

- Gender empowerment in Sri Lanka in much higher than in the rest of the countries in the Region.
- Spatial disparities are glaring in some indicators. The population below the poverty line in 2002 was 8% in urban areas, 25% in rural areas and 30% in the estate sector. (Estate sector comprises the plantations in the central highlands and surrounding areas).

Indicators	Latest available value	Year	Source
Inequalities – Gender			
Expectation of life at birth F:M	1.07	1996-2001	{1}
Female share in employment (non-agricultural sector) (%)	31	2001	{7}
Ratio of earned income (females as % of males)	0.57	1991-2001	{20}
Seats held in parliament–F (%)	4.9	2004	{7}
Ratio of girls to boys in primary schools (%)	95.3	2001	{7}
Inequalities – Spatial			
Infant mortality rate (per 1000 live births)			
Trincomalee	2	2001	{6}
Matare	7.6	2001	{6}
Anuradhapure	22.5	2001	{6}

Access to safe water in 1994-2001 by geographic area



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Health sector constraints

- Inter-sectoral coordination is poor due to weak horizontal linkages between health-related ministries and the Ministry of Health, as well as lack of appreciation of each other's importance.
- For sustainable and efficient district health systems, the capacity of health managers and planners as well as instruments such as health information and material procurement need substantial improvement.

- The tertiary and secondary level hospitals have bed occupancy in excess of 100% (2 persons on one bed in some cases) whereas the primary care hospitals often have 30% occupancy. This highly cost-ineffective situation arises because many people bypass the lower level facilities even for relatively simple illnesses.
- The health information system needs further strengthening with IT support, and inclusion of community and private sector information. Data on private sector patient workload and disease profiles are not collected, which makes a comprehensive overview of the entire health sector impossible.
- Stewardship is required to engage and regulate the private sector, collaborate with the education and other sectors as well as other stakeholders, and providing much needed certainty in the direction of the health sector.
- Quality control in pharmaceutical production, pricing and prescriptions has been a major issue which is yet to receive adequate attention.

Challenges

Nutrition

- Despite rapid progress, childhood malnutrition rates are still high with 29% under-weight, 14% wasted and 14% stunted in 2000.

Health services

- Not only are demographic and epidemiological changes rapidly occurring in Sri Lanka but health needs and demands have been moulded due to the technological and social advances. This has increased the people's expectation from the health system. Meeting this expectation is difficult with the present resources.
- Development of capacity for full utilization of resources for maximum benefit is a critical issue for the system that must maintain its focus on the poor and the marginalized.

- Geographical disparities in communicable diseases need to be addressed. Emerging diseases such as dengue and HIV/AIDS also require more attention.
- Maternal mortality has declined steadily for nearly half a century.

Lifestyle

- Sri Lanka has among the world's highest suicide rates in adolescents and young adults, and it is also very high in those over 70 years of age.
- Noncommunicable diseases are gradually becoming major contributors to morbidity and mortality as the population is ageing. Lifestyle changes and other services to prevent and manage noncommunicable diseases are now emerging as major challenges including cost-escalation for the health system.

Q 10 What does the country hope to achieve in the near future in health?

- All efforts will be made to maximize the financial allocation for health development so that the government can provide more efficient health services throughout the country.
- The Health Master Plan 2005-2015 aims to facilitate equity by making health services accessible, especially to the poor and marginalized. For this, the strategies are:
  - delivery of comprehensive health services, which can reduce the disease burden and promote health;
  - empowering communities to participate actively in health maintenance;
  - improving human resources for health delivery and management;
  - improving health financing, mobilization, allocation and utilization of resources; and
  - strengthening of stewardship and management within the health system.
- The Ministry of Health is planning and sponsoring a major national behaviour change communication programme which is expected to initiate healthy lifestyle in targeted population.The objective is to reduce preventable risk factors that may be increasing due to technological advances, affluence and ageing.
- Past activities to address environmental degradation have fallen short of what is required to maintain and improve environment in the wake of growing demands on the island's limited natural resources. The national environment policy commits more effective management of the environment within the framework of sustainable development in the country.

- There is comprehensive document on drug policy. Efforts are on to bring together scattered elements in one document through discussion with all stakeholders. A formal National Medicinal Drug Policy may be adopted soon by the government.
- The essential drugs list is being revised with more emphasis on educating health professionals and the public.

How is WHO collaborating with the country?

Policy development and planning

- WHO assisted the Ministry of Health in conducting a detailed assessment of the health sector and in the development of the Health Master Plan 2005-2015.

Health systems management

- Technical assistance was provided in the areas of health planning and management, development of health information system, decentralization, and health services delivery.
- WHO has been instrumental in successfully mobilizing external resources for the health sector.
- Support was provided for training on result-based management and planning, and on monitoring and evaluation with emphasis on provincial and district level capacity building.
- Technical and other support was provided to the North-East Provincial Council for the health sector after the LTTE ceasefire in 2002.

Promotion of healthy lifestyles and settings

- WHO has been able to respond quickly to a number of potential disasters and provide immediate humanitarian support to the affected population. Immediately following the tsunami disaster in December 2004, support was provided to the national and local health authorities for needs assessment, in essential medical supplies, strengthening the cold chain, and in ensuring mobility of health teams.
- Although WHO has not played a major role with NGOs the tsunami relief operations provided the opportunity to coordinate international and national NGO activities.

- Support was extended for the introduction of health promotion competencies in Sri Lanka related to the five strategies of health promotion enunciated in the Ottawa charter, and for mapping national capacity in health promotion.
- With technical assistance from WHO, the Ministry of Health has developed new mental health legislation and a new national mental health policy that may help to provide a comprehensive range of hospital and community services in all districts.
- With WHO's technical assistanceand financial support from Japan, Sri Lanka has greatly improved its blood transfusion system. Human resource development in blood transfusion services was supported with the establishment of in-country training programmes and by providing opportunities for international training in specialized areas.

Prevention and control of priority diseases

- Disease surveillance and laboratory diagnosis capabilities, particularly in the North-East were strengthened.
- For malaria and dengue, considerable material and training support was provided to ensure more effective vector control throughout the country.
- The piloting of new strategies for rabies control, the monitoring of leprosy elimination activities, and social mobilization for filaria control including development of a one-day treatment strategy were supported.

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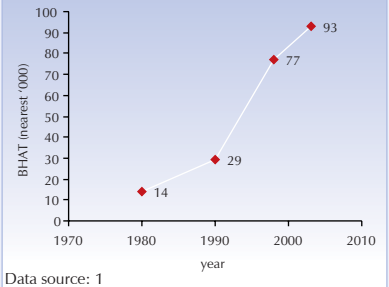
Thailand

Basic information	Latest available value	Year	Source
Total population (million)	62.8	2006	{23}
Area (sq.km.)	514,000		{1}
Density of population (per sq.km.)	122	2006	{23}
Administrative divisions	75 provinces (Chagwat) and 795 districts (Amphoe)		

Development	Latest available value	Year	Source
Gross national income (GNI) per capita (US$)	2750	2005	{4}
Highest in the world – Norway	59590	2005	{4}
Highest in the Region – Thailand	2750	2005	{4}
Population below poverty line – Intl.$1 per day (%)	3.5	2000	{1}
Lowest in the Region – Maldives	<1	2002	
Population below national poverty line (%)	10	2002	{5}
Lowest in the Region – Maldives	8	2004	
Adult literacy rate >15 years (%)	96	2001	{1}
Highest in the Region – DPR Korea	100	2003	
Enrolment ratio—primary (%)	86	2001-2002	{1}
Highest in the Region – DPR Korea	100	2003	
Human Development Index	0.784	2004	{6}
Highest in the Region – Thailand	0.784	2004	
Human Poverty Index (%)	9.3	2006	{6}
Lowest in the Region – Thailand	9.3	2006	
Gender-Related Development Index	0.781	2006	{6}
Highest in the Region – Thailand	0.781	2006	

GDP per capita



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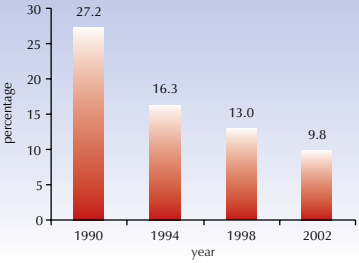
Percentage of population below national poverty line



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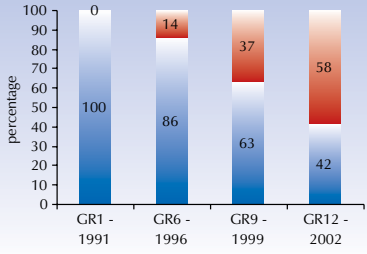
Percentage of retention and drop outs in school



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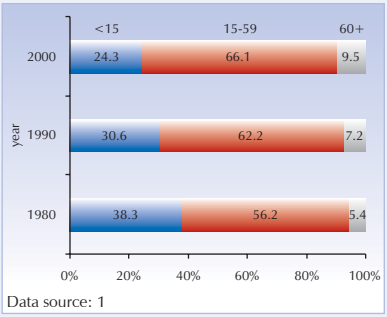
Salient basics

- The Thai economy was growing rapidly untill 1997 when an economic crisis erupted. The economy contracted during 1997 and 1998, and then recovered.
- Thailand is among the well-off countries in the Region with only 10% of the people below the national poverty line.
- The Education level is high and the Human Development Index is at 0.784.

Q1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population (million)	62.8	2006	{23}
Population growth rate per year (%)	0.8	2001	{1}
Urban population (%)	33	2005	{1}
Age-sex structure			
Sex ratio (F/1000M)	1027	2006	{23}
Children <15 years (%)	22	2006	{23}
Elderly ≥60 years (%)	11	2006	{23}
Highest in the world – Italy, Japan	26	2005	{7}
Highest in the Region – DPR Korea	12	2002	
Dependency ratio – (<15 and 65+ years) (%)	41	2006	{24}
Fertility			
Birth rate (per 1000 population)	12.7	2006	{23}
Lowest in the world – Germany, Ukraine	8.0	2004	{8}
Lowest in the Region – Thailand	12.7	2006	
Total fertility rate (TFR) (per woman)	1.6	2006	{23}
Lowest in the world – Ukraine	1.1	2004	{9}
Lowest in the Region – Thailand	1.6	2006	
Contraceptive prevalence (%)	74	2006	{23}
Gross mortality			
Crude death rate (per 1000 population)	8	2006	{23}
Lowest in the world – UAE	1.0	2004	{8}
Lowest in the Region – Maldives	3.0	2005	

Percentage of population in different age groups



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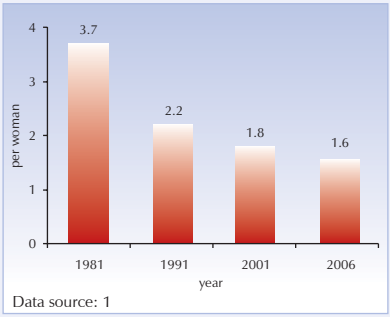
Total fertility rate



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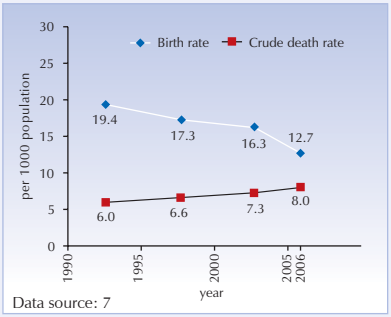
Crude death and birth rates



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Salient demographic features

- The population growth rate has declined steeply over the past 20 years.
- Contraceptive prevalence seems to have plateaued at around 75%.
- The country is in the phase of a demographic bonus with lowest dependency. People age of 60+ were 5.4% in 1980, 9.5% in 2000, and 11% in 2006.
- The net reproduction rate may be already less than 1, indicating that the population may stabilize in the near future.

Q 2 What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005	2015 (Target)
Poverty and hunger				
Population below minimum national food poverty line (%)	7	4	2	3
Under-weight (<-2SD) children (%)	19	9	9 (2003)	9
Child mortality				
Infant mortality rate (per 1000 live births)	49	24 (2001)	24 (2002)	16
Under-five mortality rate (per 1000 live births)	58	28 (2001)	28 (2002)	19
One year olds immunized against measles (%)	78	84	84 (2002)	>90
Maternal health				
Maternal mortality ratio (per 100,000 live births)	36	14	14 (2003)	9
Deliveries attended by health staff (%)	91	98 (2001)	N/A	94
HIV/Malaria/Tuberculosis				
HIV prevalence in 15-49 years (per 100,000 population)	N/A (1992)	N/A	1540 (2004)	
Malaria incidence (per 100,000 population at risk)	518	160	64 (2004)	
Tuberculosis prevalence – (per 100,000 population)	35 (1992)	52	48 (2001)	
Water and sanitation				
Population with access to improved water source (%)				
Combined	74	95	92	87
Rural	N/A	91	N/A	
Urban	N/A	97	N/A	
Population with access to improved sanitation (%)				
Combined	74	98	N/A	87
Rural	N/A	97	N/A	
Urban	N/A	100	N/A	

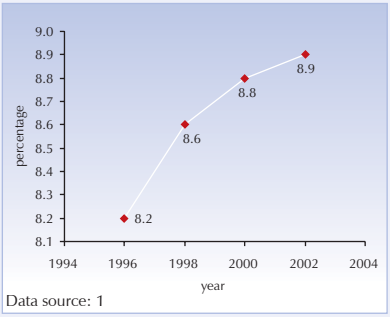
MDG progress

- Except for tuberculosis, all other health-related MDG targets have been achieved or are likely to be achieved.

Q3 What are the major health problems?

Indicators	Latest available value	Year	Source
In children under five years			
Low birth weight (%)	9	2002	{1}
Lowest in the Region – Indonesia	6	2002	
Stunted children (%)	16	1996-2004	{8}
Lowest in the world – Croatia	1	1998-2004	{8}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children (%)	9	2003	{1}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{8}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Diarrhoeas incidence (per 1000 children <5 years)	72	2003	{1}
Pneumonia incidence (per 1000 children <5years)	18	2003	{1}
Iodine deficiency disorder among primary school children (per 1000 children)	16	2002	{1}
Other diseases			
Anaemia in pregnant women (%)	12	2002	{1}
Tuberculosis incidence (per 100,000 population)	76	2003	{1}
Malaria incidence (per 100,000 population)	64	2003	{1}
Filariasis prevalence (per 100,000 population)	0.6	2003	{1}
HIV prevalence (per 100,000 population)	957	2003	{C}
Hypertension prevalence (per 100,000 population)	390	2003	{12}
Diabetes prevalence (per 100,000 population)	381	2003	{12}
Cancer prevalence (per 100,000 population)	156	2005	{12}
Leprosy incidence (per 100,000 population)	3	2003	{1}
Prevalence of anxiety disorders (per 100,000 population)	776	2001	{1}
Injuries (per 100,000 population)	111	2002	{1}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	8.4	2002	{13}
Female	10.2	2002	{13}
As % of expected life at birth (ELB) lost			
Male	12.7	2002	{13}
Female	14.1	2002	{13}

Percentage of low birth weight



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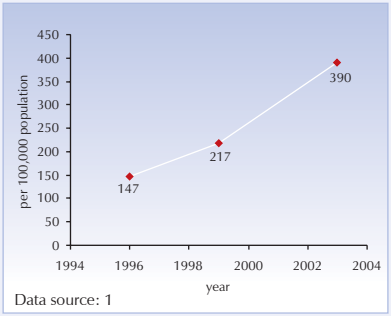
Prevalence of hypertension



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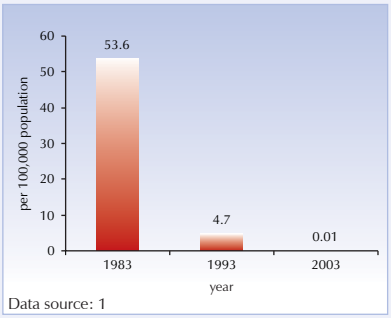
Incidence of neonatal tetanus



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Major health problems

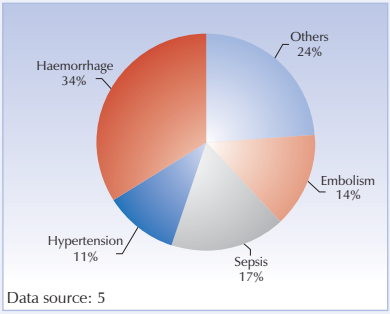
- Noncommunicable diseases such as diabetes and hypertension have more than doubled between 1996 and 2003.
- An increasing trend of over-weight among children indicates that obesity could become an over-riding public health problem.

4

What is the mortality profile?

Indicators	Latest available value	Year	Source
Mortality rates			
Neonatal mortality rate (NMR) (per 1000 live births)	10	2001	{12}
Lowest in the world – Singapore	1	2000	{9}
Lowest in the Region – Maldives	8	2005	
Infant mortality rate (IMR) (per 1000 live births)	24	2002	{1}
Lowest in the Region – Sri Lanka	11	2003	
Under-five mortality rate (U5MR) (per 1000 live births)	28	2002	{1}
Lowest in the world – Iceland, Singapore	3	2004	{8}
Lowest in the Region – Maldives, Srilanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	14	2003	{1}
Lowest in the Region – Thailand	14	2003	
Age at death			
Expectation of life at birth (ELB) (years)	69	2002	{1}
Highest in the world – Japan, Monaco	82	2004	{15}
Highest in the Region – Maldives, Sri Lanka	73	1996-2001	
Deaths under-five years (% of total deaths)	4	2002	{C}
Lowest in the Region – Thailand	4	2002	
Causes of death (percentage of total death)			
Three main causes of infant deaths (%)			
Birth asphyxia	22	1995-96	{5}
Prematurity	16	1995-96	{5}
Diseases of heart & blood	10	1995-96	{5}
Three major causes of deaths (per 100,000 population)			
AIDS	82	2003	{1}
Cancer	79	2003	{1}
Accidents	57	2003	{1}
Tuberculosis death rate (per 100,000 population)	11	2003	{1}
Cardiovascular diseases death rate (per 100,000 population)	28	2003	{1}
Mortality rates for major causes of deaths in elderly (per 1,00,000 elderly population)			
Cancer	400	2003	{1}
Heart diseases	177	2003	{1}
Kidney diseases	108	2003	{1}
Pneumonia	107	2003	{1}
Diabetes	67	2003	{1}
Cerebrovascular disease deaths (% of total deaths)	6	2002	{14}

Causes of maternal dealths 2002



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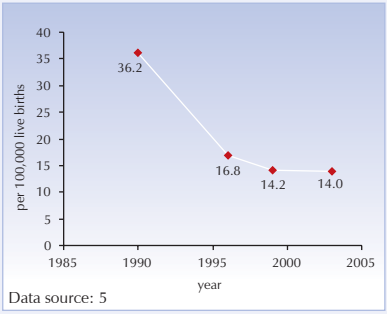
Maternal mortality ratio



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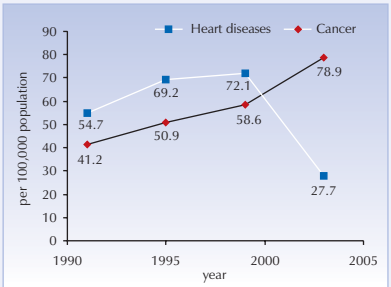
Death rate of heart diseases and cancer



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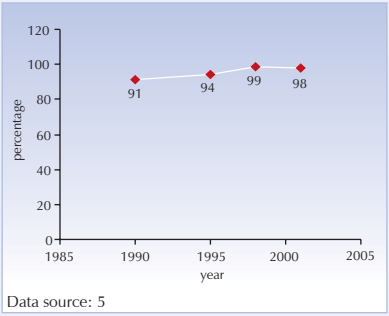
Mortality profile

- HIV/AIDS is a major killer of adults.
- The cancer death rate is steeply rising in the elderly population. The death rate due to heart diseases is declining after peaking in 1999.

Q5 What resources are available for the health sector?

Indicators	Latest available value	Year	Source
Expenditure on health			
Percent of GDP	3.5	2003	{CC}
Highest in the world – USA	15.2	2003	{15}
Highest in the Region – Timor-Leste	9.6	2003	
Per capita (US$)	76	2003	{15}
Per capita (Intl.$)	260	2003	{15}
Highest in the world – USA (Intl.$)	5711	2003	{15}
Highest in the Region – Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2410	2001-2003	{16}
Services			
Health centres (per 100,000 population outside municipal areas)	20.0	2003	{1}
Antenatal care coverage (%)	87	2003	{3}
Pregnant women immunized with TT (%)	75	2002	{1}
Deliveries by qualified attendant (%)	98	2001	{5}
Children immunized (%)			
BCG	99	2005	{25}
DPT-3	98	2005	{25}
Polio-3	98	2005	{25}
Measles	96	2005	{25}
Beds (per 10,000 population)	22	2002	{1}
Highest in the world – Monaco	196	1995	{9}
Highest in the Region – DPR Korea	132	2002	
Human resources			
Doctors of modern system (per 10,000 population)	3.0	2002	{1}
Highest in the world – Cuba	59	2002	{15}
Highest in the Region – DPR Korea	32	2003	
Nurses (per 10,000 population)	14.0	2002	{1}
Highest in the Region – DPR Korea	37	2003	{15}
Dentists (per 10,000 population)	1.7	2000	{15}
Pharmacists (per 10,000 population)	2.5	2000	{15}
Public and Environmental Health Workers (per 10,000 population)	0.4	2000	{15}
Community Health Workers (per 10,000 population)	0.6	2000	{15}
Other Health workers (per 10,000 population)	2.3	2003	{15}

Percentage of births attended



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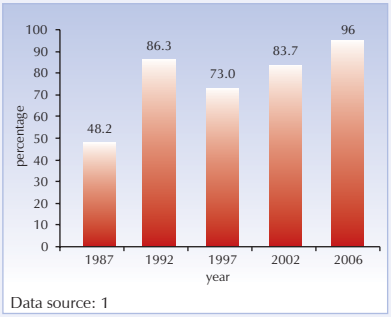
Percentage of measles coverage



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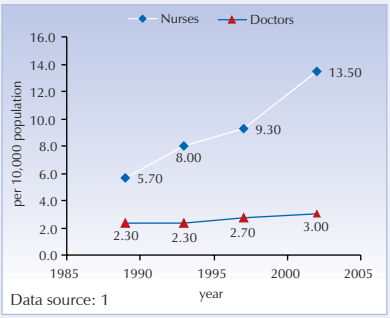
Human resources per 10,000 population



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Health resources

- The total health expenditure at 3.5% of GDP is relatively low although per capita expenditure of 260 Intl.$ is not low compared with other countries in the Region.
- Provision of services in terms of health centres, immunization coverage and beds is sufficient.
- Health centres are within easy reach of most people.

Q 6 What is the system of health governance?

Organization

The Ministry of Public Health is the principal agency responsible for promotion, support, control and conduction of all physical and mental health activities to ensure that the people live a healthy and long life. Besides Secretary's office, the Ministry has three clusters of departments.

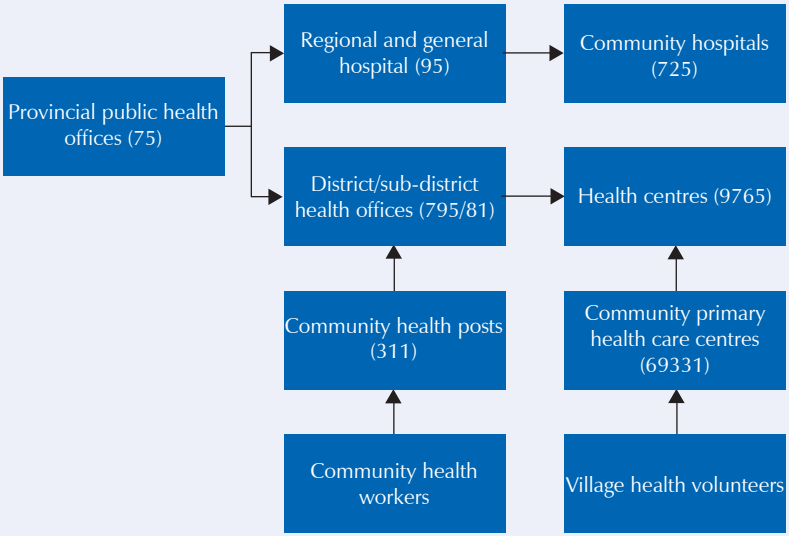
- Medical Services Development comprising Department of Medical Services, Department of Thai Traditional and Alternative Medicine, and Department of Mental Health.
- Public Health Development comprising Department of Disease Control and Department of Health.
- Public Health Services Support comprising Department of Health Service Support, Department of Medical Sciences, and Food and Drug Administration.

The Provincial Public Health Offices (75) are headed by a Provincial Chief Medical Officer. He or she manages one or two regional/general hospitals and several smaller hospitals at the district level, called Community Hospitals.

Health Centres provide integrated health services at the tambon (commune) level in designated rural areas, each covering a population of 1000 to 5000. Each Health Centre is generally staffed by community health officers (a male health worker, a midwife and a technical nurse).

Private sector

- In 2003, Thailand had 346 hospitals in the private sector with a total of nearly 35000 beds, and 14953 clinics without beds. Doctors in the private sector have increased their share from 8.3% in 1971 to 21% in 2002. However, dentists, pharmacists and nurses are relatively less in the private sector.



- There are total of 14984 pharmacies in the private sector. Nearly one-third of private facilities in the health sector are in the Bangkok Metropolitan Area.

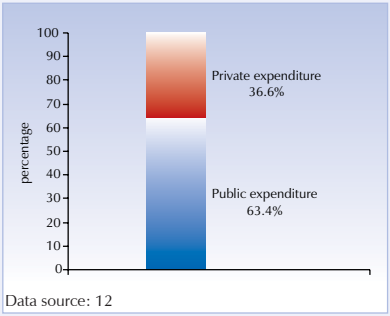
Traditional system

- In 2003, Thai traditional medicine services were available in 2311 health facilities, which represent nearly one-fifth of the health facilities nationwide.

Q7 Who pays for health care?

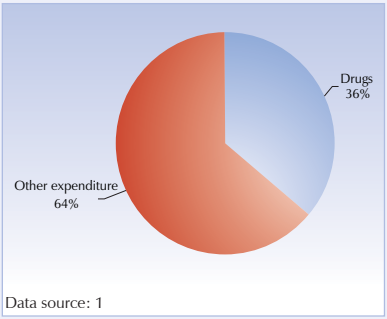
Indicators	Latest available value	Year	Source
Government expenditure on health			
Out of total health expenditure (%)	63.4	2003	{CC}
Per capita (US$)	48	2003	{15}
Per capita (Intl.$)	165	2003	{15}
Highest in the world – Monaco (Intl.$)	3403	2003	{15}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (%)	36.6	2003	{CC}
Per capita (US$)	28	2003	{C}
Per capita (Intl.$)	95	2003	{C}
Lowest in the Region – DPR Korea	0.4	2004	
Out-of-pocket expenditure (% of private expenditure on health)	73.9	2003	{CC}
Per capita (US$)	21	2003	{C}
Per capita (Intl.$)	70	2003	{C}
Lowest in the world – Tuvalu	13	2003	{15}
Lowest in the Region – Timor-Leste	26	2004	
Insurance coverage			
Social security expenditure on health out of general government expenditure on health (%)	32	2003	{15}

Health expenditure



Data source: 12

Expenditure on drugs out of total health expenditure 2002



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Health expenditure

- Public expenditure on health is more than 60% of the total expenditure on health.
- Ten percent of the population in municipal areas and 3.5% in non-municipal areas are not covered by any health insurance. More than 30% of general government expenditure on health is on social security.
- Despite high coverage by health insurance, out-of-pocket expenditure accounts for nearly three-fourths of the private expenditure.

8 What are the recent reforms and achievements of the health system?

Health sector reforms

- Reorientation of the mission and restructuring of the Ministry in 2002 resulted in its downsizing. Certain health facilities will become like state agencies with more flexibility in their operations.
- A plan has been prepared in cooperation with all concerned for decentralization of health administrative systems in the form of an Area Health Board. In this context, the Ministry has established 52 Provincial Public Health Committees to undertake responsibility of developing a system that caters to the actual health needs of the communities.
- Between 2002 and 2004, the government continued to support programmes for the poor and under-privileged but in the form of health insurance revolving fund and capitation payment, covering a population of 46 million who never had any insurance coverage.
- Problems such as pollution and HIV/AIDS have social overtones that the Ministry of Public Health alone was not able to solve. There are now nearly 500 NGOs registered with the Ministry, which are working in support of the public sector. These have become a powerful force in social mobilization, aiming to achieve the highest efficiency of programme operations.
- The Thai Health Promotion Foundation was established in 2001.
- Thailand aims to deliver health services oriented towards building health rather than treating ill-health. Among reforms are decentralization, hospital autonomy, health insurance, quality assurance and community participation, with special attention to hill tribes, internal migrants, undocumented aliens and the urban poor that have been neglected in the past.

- The Ministry of Public Health initiated the Healthy Thailand strategy as a guideline to reduce behavioural health risks and solve major health problems while pursuing the MDG targets. Five key areas of this strategy are: exercise, diet, emotional development, disease reduction and environment health.
- Modernizing Health Care System in Thailand is the most recent plan to enhance the development of e-health, and setting up of excellent medical services and health research centres.

Achievements

- The universal coverage of health care scheme now extends to all 75 districts, and covers nearly 75% of the population nationwide. Some other persons are covered by other health insurance schemes. Only 5% are now left with no insurance coverage.
- Health promotion programmes are mostly implemented by the public sector agencies and NGOs with a variety of approaches such as health behaviour modification. The major achievements of such programmes are (i) preventing youth from alcohol consuming and social measures for minimizing its negative impact, (ii) organization of "Empowerment for Health" events to encourage people to participate in promoting their own health; (iii) launching projects for awareness regarding exercise; (iv) promotion of healthy food consumption; and (v) no smoking campaigns due to which the smoking rate dropped from 30% in 1976 to 22% in 1993.
- For promotion of mental health, activities have been undertaken such as 'bonding relations within the family', development of childrens emotional quotient, community programmes for removing inhibitions for seeking mental health care, and establishment of a Mental Health Crisis Centre.
- Since 2003, the Ministry has implemented universal access to antiretroviral (ARV) drugs to all HIV/AIDS patients.
- Prevention and control measures for malaria and filaria, particularly in border areas, has resulted in a substantial decline in these two diseases. Polio has been eradicated and leprosy has reached the elimination level.

- The Ministry has launched campaigns to raise public awareness about prevention and control of cardiovascular diseases, particularly hypertension in normal and at-risk conditions, to reduce the risk. For cervical cancer, a large number of women of 35 years and above have been examined under a project launched for its prevention and control. For breast cancer, women are encouraged to do a self-breast examination every month.
- For Thai traditional medicine, 28 agencies have formed a network called Federation of Thai Traditional Medicine, which works for conservation and protection of Thai traditional medicine wisdom. A museum was established in 2003 to collect all knowledge and technology on this system. Experiments have been conducted on the anti-microbial and immunogenic properties of many medical herbs and extracts for their anti-HIV/AIDS properties.

Legislation

- The Thai Traditional Medicine Protection and Promotion Act 1999
- The Thai Health Promotion Foundation Act 2001 promotes and encourages health promotion in all age groups in the population in accordance with the national health policy. It seeks to create awareness of the risks of alcohol, tobacco, etc., conduct studies and research or encourage them, and develop the ability of the community to foster health promotion activities.
- The National Health Security Act 2002, laid the basis for a universal health care scheme, popularly known as 30-baht (US$0.86) scheme since that is the fee for each visit or admission to hospital. The Act allows merging of civil service and social security schemes into a single universal scheme.
- Under the Elderly People Act 2003, the National Commission on Elderly was established with the Prime Minister as the chair. The Act establishes a specific elderly fund to cover expenses for promotion and support of activities related to the elderly. It also stipulates the implementation of a monthly allowance scheme to destitute elderly throughout the country.

- A National Health System Reform Office has been established for formulating the process leading to the passage of a National Health Act, which will be regarded as the "health constitution" of the Thai people.
- A National Public Health Act has been drafted that stipulates a National Health Committee comprising representatives from the government, intellectuals and the public at large. This Act also stipulates a National Health Assembly that will provide the forum to discuss opinions and the felt-needs of the people.

9 What are the constraints and challenges of the health system?

Financial constraints

- Although health budget in 2004 was much higher than before but, in real terms, it was less than the 1997 budget. Thus, financial difficulties are inevitable, but they have been affected because of wide coverage by public health insurance.

Expertise and other physical constraints

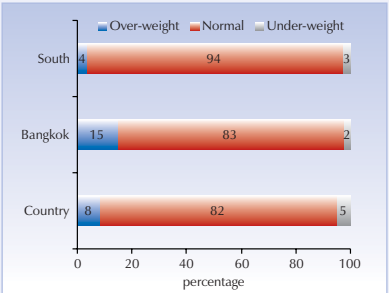
- While Thai capacity is well-developed, there are technical areas such as globalization, consumer protection and environmental health where additional human resources and institutional development are needed. It is also necessary to continuously upgrade knowledge to keep pace with global developments.
- The number of health personnel is not consistent with the increased workload. Health agencies now have to carry a greater burden of responsibility as new programmes and projects are launched.
- Many doctors resigned government jobs due to heavy workload and inadequate compensation. In addition, indirect loss occurs when duties not commensurate with qualification are assigned. In response to the increasing demand for human resources in both the public and private sectors, the government has approved a project to increase the production of doctors.

Social constraints

In 2002, the health spending burden of the poor was 1.6 times higher than of the rich, relative to their income. This inequality has declined from 6.4 in 1992, but is still present.

Indicators	Latest available value	Year	Source
Inequalities – Gender			
Expectation of life at birth F:M	1.1	2006	{23}
Female share in employment (services) (%)	35	2006	{6}
Seats held in parliament – F (%)	10.6	2005	{6}
Ratio of girls to boys in primary schools (%)	93	2000	{5}
Inequalities – Spatial			
Morbidity rate of leptospirosis (per 100,000 population)			
North	7	2003	{1}
Central	1	2003	{1}
Northeast	18	2003	{1}
South	2	2003	{1}
Population below poverty line			
Urban	6.7	2002	{1}
Rural	19.7	2002	{1}

Nutritional status of children 5-14 years 2003-04



Data source: 14

Females are at some disadvantage, and area-wise inequalities are observed. The population below the poverty line is three times more in rural areas than in urban areas. The Bangkok Metropolitan area has almost twice as much obesity in children as the average for the country. The North-eastern region has less than one-sixth of health personnel per thousand population compared with the Bangkok Metropolitan area.

Health sector constraints

- Management in public hospitals is highly centralized. Hospital performance assessment is hardly implemented except through the routine supervision and reporting system.

Challenges

Health services

- Malaria and tuberculosis have re-emerged after many years of showing decline. HIV/AIDS has declined but is still high in some risk groups such as 42% among intravenous drug users in 2002. These have become priority health problems requiring greater attention.
- Universal coverage of health care has been achieved within one year. Rapid implementation of this scheme has threatened the policy sustainability to some extent since the existing infrastructure has limited capacity to perform new roles and functions. In addition, there is the problem of under-funding and less-than-ideal quality of medical services. The challenge is to keep the system sustainable and to meet the people's expectations.
- Prevalence of hypertension is high, particularly in urban areas, but many individuals are not aware that this problem exists. Many have a high cholesterol level.

Lifestyle

- Smoking is highly prevalent – 44% of males were smoking in 2003. Smoking among females has considerably declined from 6% in 1976 to 3% in 2003 but smoking among males has shown only a marginal decline. Already, 6 deaths per hour occur due to smoking-related illnesses.
- Unsafe sex was the highest risk factor causing nearly 13% loss of disability adjusted life years (DALYs) in 1999.

- The rate of drug abuse escalated from 0.2% in 1985 to 1.5% in 1999 – a 7- fold increase.The number of students registered for drug dependence treatment has soared from 1289 in 1992 to 7569 in 2002, a 6-fold increase.
- Consumption of snacks is increasing. During 2000-01, 87% of 6-year old children entering the schooling system had decayed, missing or filled teeth.

Q10 What does the country hope to achieve in the near future in health?

- The 9th National Health Development Plan 2002-06 continues to place emphasis on a people-centred approach with the aim of improving public health and the overall health system. In addition, the government has placed emphasis on programmes such as food safety, exercise for health, and road safety management. The Health Plan has the following main targets:
  - Reduce incidence of low birthweight from 9% to7%; reduce infant mortality rate from 24 per 1000 live births to 15; reduce the malnutrition rate among children less than five years from 8.7% (2003) to 7%, and increase life expectancy at birth from 75 years (2000-05) in females to 77 years and from 68 years (2000-05) in males to 72 years.
  - Reduce deaths from accidents from 57 per 100,000 population (2003) to 50, from cancer from 79 per 100,000 population (2003) to 40. Targets for neonatal deaths and cardiovascular deaths have been already achieved.
  - Reduce acute diarrhoea incidence from 1719 per 100,000 population (2003) to 1000; reduce dengue haemorrhagic fever morbidity from 100 per 100,000 population (2003) to 20; reduce mental stress problems from nearly 60% to 50%, and reduce the suicide rate from 36 per 100,000 population (2001) to 33.5. Targets for tuberculosis and malaria have been already achieved.
  - In the area of health promotion, the targets are to increase the rate of healthy children from 72% (1999) to 80%, and those exercising regularly from 29% (age11+ years) to 60% and reduce the smoking rate among people aged 15 years or more.
- For health information system (HIS), new guidelines aim to develop electronic individual cards, which can be linked between

the central and local levels. The standardized system is expected to be linked to such a 'smart card' in the future. The system will also be able to measure programme achievement indicators.

- The Government has a policy to restructure the management system of all health facilities so that they are more independent and flexible yet remain under the government system. The details are being worked out.
- The electronic health information system would link the universal health care coverage scheme, the social security scheme and the civil servant benefit scheme. This will cover nearly 95% of the population. The system is expected to link personal medical records to financial management information system, help in developing a nationwide data warehouse, and provide an opportunity to adopt telemedicine technology including tele-consultation and appointments.
- Emerging diseases, which include infectious diseases, noncommunicable diseases, injuries and human toxic substances, would be effectively monitored under the national surveillance system. The national authority would provide technical support to the local governments, as well as set up a network with other countries for disease control and prevention.
- A national mechanism would be established for planning and regulating the production and service of human resources for health.
- A mechanism would be set up to support and regulate traditional and other alternative health services.
- Area Health Boards were proposed to combine different local health authorities to get the advantages of economy of scale, and allow better referral and sharing of service responsibility among various levels of health providers.
- Thailand hopes to become the Wellness Capital of Asia and the Medical Hub of Asia in view of the availability of a large number of spas, massage therapies, herbal products, and many hospitals that meet the ISO standards.

11 How is WHO collaborating with the country?

Policy development and planning

- In tune with the transition from a poor developing nation to a middle-income country, WHO programmes in Thailand are more focused on emerging health issues such as health system reform and the HIV/AIDS epidemic.
- Thailand houses considerable individual and institutional capacity in health-related areas. For this reason there has been considerable growth in the supportive functions of WHO such as study tours, fellowships, group educational activities, consulting, collaborating centres and contracting of research projects.
- WHO assists in providing a forum for discussion of policy implications of monitoring and assessments; encouraging evidence-based approaches; sharing of most recent developments from global initiatives/other country success stories, and providing a forum for presenting Thailand's experience to neighbouring countries.
- WHO Thailand represents WHO at the Economic and Social Commission for Asia and Pacific (ESCAP). WHO has forged a stronger alliance with this agency in a number of health and development areas, most notably in efforts to implement the recommendations of the Commission on Macroeconomics and Health issued in 2001.

Health system management

- Thailand has been actively involved, with WHO assistance, in many new regional and bilateral international health related collaborative efforts, e.g., the Intercountry Cooperation for

Health Development in the 21st Century initiative, the Mekong Basin health projects, the ASEAN subcommittee on health and nutrition, bilateral cooperation agreements with neighbouring countries, and south-south collaboration.

- To benefit and contribute most to global health-related collaboration and to cope with the increased level of international politics affecting health, Thailand sees an urgent need to strengthen the country's international health capacity, particularly in human resources. WHO is actively supporting this initiative.

Promotion of healthy lifestyle and settings

- WHO is devoting considerable resources outside the conventional health care paradigm such as in creating awareness and prevention of HIV/AIDS to people living with HIV/AIDS, access to basic health services through social security schemes, healthy cities approach for health promotion and environmental health as well as occupational health.
- Nongovernmental organizations (NGOs) have been very effective in tobbaco control activities and have been strong supporters of WHO's tobacoo-free initiatives.

Prevention and control of priority diseases

- WHO assists in advocacy for integrated policies and strategies for the national plan for control of communicable diseases, contextual analysis of national needs under decentralization, coordinated surveillance, exploring intersectoral networking, dialogue with neighbouring countries for bilateral and multi-country surveillance, developing national disease profiles, etc.
- In the area of noncommunicable diseases, WHO helps in assessment of effectiveness of health promotion activities, linking Thai activities to the global health promotion agenda, technical support for capacity building especially for mid-level staff, and linking research results to policy development.

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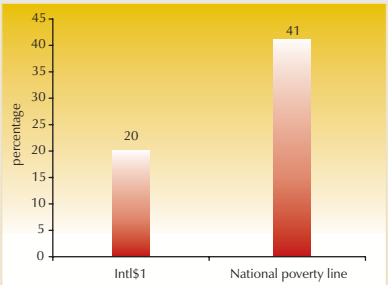
Timor-Leste

Basic information	Latest available value	Year	Source
Total population	1,015,187	2004	{CC}
Area (sq.km.)	14,610		{1}
Density of population (per sq.km.)	69	2004	{1}
Administrative divisions	13 districts and 67 sub-districts		

Development	Latest available value	Year	Source
Gross national income(GNI) per capita (US$)	729	2005	{3}
Highest in the world (GNI) – Norway	59590	2005	{3}
Highest in the Region – Thailand (GNI)	2750	2005	{3}
Population below poverty line – Intl.$1 per day (%)	20	2001	{4}
Lowest in the Region – Maldives	<1	2004	
Population below national poverty line (%)	41	2001	{4}
Lowest in the Region – Maldives	8	2004	
Adult literacy rate >15 years (%)	43	2001	{4}
Highest in the Region – DPR Korea	100	2003	
Net enrolment ratio—primary (%)	75	2004	{CC}
Highest in the Region – DPR Korea	100	2003	
Human Development Index	0.426	2004	{5}
Highest in the Region – Thailand	0.784	2004	
Human Poverty Index (%)	44.6	2004	{5}
Lowest in the Region – Thailand	9.3	2006	
Gender-Related Development Index	0.369	2004	{5}
Highest in the Region – Thailand	0.781	2006	

Percentage of population below poverty line



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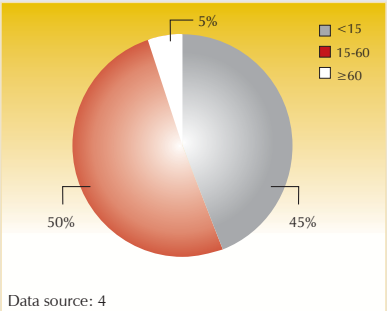
Salient basics

- Timor-Leste is situated on the eastern part of the island of Timor and achieved independence in 2002.
- It is among the poorest 10 countries. Coffee is the main cash crop.
- Literacy also is low, and the human development index is less than 0.5.

Q1 What are the basic demographic features?

Indicators	Latest available value	Year	Source
Population			
Total population	1,015,187	2004	{CC}
Population growth rate per year (%)	3.2	2004	{CC}
Urban population (%)	15	2002	{1}
Age-sex structure			
Sex ratio (F/1000M)	970	2004	{CC}
Children <15 years (%)	45	2004	{CC}
Elderly ≥60 years (%)	5.0	2005	{CC}
Highest in the world (60+ years) – Italy, Japan	26	2005	{7}
Highest in the Region – DPR Korea	12	2002	
Dependency ratio – (<15 and 65+ years) (%)	94	2004	{CC}
Fertility			
Birth rate (per 1000 population)	42.5	2004	{CC}
Lowest in the world – Germany, Ukraine	8.0	2004	{9}
Lowest in the Region – Thailand	12.7	2002	
Total fertility rate (TFR) (per woman)	7.0	2004	{CC}
Lowest in the world – Ukraine	1.1	2004	{10}
Lowest in the Region – Thailand	1.6	2000	
Contraceptive prevalence (%)	9.7	2004	{CC}
Gross mortality			
Crude death rate (per 1000 population)	15.1	2004	{CC}
Lowest in the world – UAE	1.0	2004	{9}
Lowest in the Region – Maldives	3.0	2005	

Age structure in 2004



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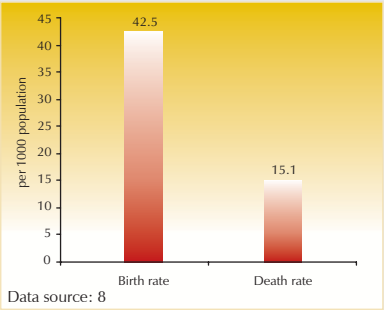
Birth rate and death rate in 2004



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Salient demographic features

- The total fertility rate is 7.0 per woman and contraceptive prevalence is 9.7%.
- The population is in the early phase of demographic transition as indicated by 45% of the population being less than 15 years old.

Q 2 What is the progress regarding some health-related MDGs?

Indicators	1990	2000	2005	2015 (Target)
Poverty and hunger				
Under-weight children (%)		45 (2001)	N/A	31
Child mortality				
Infant mortality rate (per 1000 live births)		88 (2001)	98 (2002)	53
Under-five mortality rate (per 1000 live births)		125 (2001)	130 (2002)	96
One-year-olds immunized against measles (%)		47 (2001)	42	100
Maternal health				
Maternal mortality ratio (per 100,000 live births)		N/A	420-800* (2002)	252
Deliveries attended by health staff (%)		24-38 (2001)	32 (2005)	60
HIV/malaria/tuberculosis				
HIV prevalence (per 100,000 population)		N/A	10-350	
Malaria prevalence (per 100,000 population at risk)		9000 (2001)	17143	4500
Tuberculosis prevalence (per 100,000 population)		N/A	692 (2004)	
Tuberculosis cases detected and cured under DOTS (%)		80 (2001)	85	90
Water and sanitation				
Population with access to improved water source (%)				
Combined		56 (2001)	N/A	78
Rural		51 (2001)	N/A	
Urban		72 (2001)	N/A	
Population with access to improved sanitation (%)				
Combined		19 (2001)	N/A	46
Rural		10 (2001)	30	
Urban		44 (2001)	65	

* As the estimate is not available, the range is used

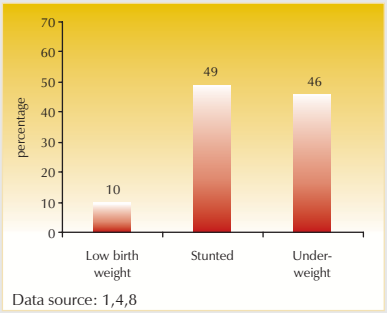
MDG progress

- The 2001 baseline is preliminary and the targets are pro-rata and indicative.
- Data are insufficient to assess the trend of progress.

Q 3 What are the major health problems?

Indicators	Latest available value	Year	Source
In children under-five years			
Low birth weight (%)	10	2002	{CC}
Lowest in the Region – Indonesia	6	2002	
Stunted children (6-60 months age) (%)	49	2003	{CC}
Lowest in the world – Croatia	1	1998-2004	{9}
Lowest in the Region – Sri Lanka	14	2000	
Under-weight children (%)	46	2003	{CC}
Lowest in the world – Chile, Croatia, Ukraine	1	1998-2004	{9}
Lowest in the Region – Thailand	9	2003	
Childhood diseases			
Diarrhoeas prevalence (per 1000 children <5 years)	168	2006	{CC}
Acute respiratory infections – reported cases incidence (per 1000 children <5 years)	140	2003	{CC}
Intestinal parasitic infections (per 1000 children <5 years)	800	2002	{1}
Other diseases			
Tuberculosis incidence (per 100,000 population)	556	2004	{19}
Malaria prevalence (per 100,000 population)	31,370	2006	{CC}
HIV prevalence (per 100,000 population)	10-350		{4}
Comprehensive indices			
Expectation of healthy years lost (years)			
Male	6.9	2002	{12}
Female	8.7	2002	{12}
As % of expected life at birth (ELB) lost			
Male	12.7	2002	{12}
Female	14.4	2002	{12}

Percentage of malnutrition in 2002-03



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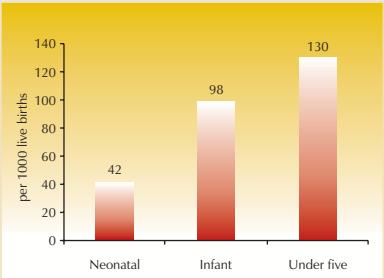
Major health problems

- WHO estimated that nearly 13% of equivalent-life years are lost due to ill-health in the country.
- Under-nutrition in children is very common. Results from the Household Survey show that four in five households do not have enough food for at least two months in a year.
- Malaria and tuberculosis are affecting a large segment ofthe population. Most common childhood illnesses are acute respiratory infections and diarrhoeal diseases. Intestinal parasitic infection is also very common.

Q 4 What is the mortality profile?

Indicators	Latest available value	Year	Source
Mortality rates			
Neonatal mortality rate (NMR) (per 1000 live births)	42	2003	{CC}
Lowest in the world – Singapore	1	2000	{10}
Lowest in the Region – Maldives	8	2005	
Infant mortality rate (IMR) (per 1000 live births)	98	2002	{CC}
Lowest in the Region – Sri Lanka	11	2003	
Under-five mortality rate (U5MR) (per 1000 live births)	130	2002	{CC}
Lowest in the world – Iceland, Singapore	3	2004	{9}
Lowest in the Region – Maldives, Srilanka	16	2005	
Maternal mortality ratio (per 100,000 live births)	420-800	2002	{1}
Lowest in the Region – Thailand	14	2003	
Age at death			
Expectation of life at birth (ELB) (years)	58	2004	{CC}
Highest in the world – Japan	82	2004	{13}
Highest in the Region – Maldives, Sri Lanka	73	1996-2001	
Deaths under-five years (% of of total deaths)	36	2004	{C}
Lowest in the Region – Thailand	4	2002	
Causes of death (percentage of total deaths)			
Three major causes of deaths (%)			
Tuberculosis	10	2002	{14}
Ischaemic heart disease	9	2002	{14}
Lower respiratory infection	9	2002	{14}
Cerebro-vascular disease deaths	5	2002	{14}
Diarrhoeal diseases deaths	2	2002	{14}
Tuberculosis death rate (per 100,00 population)	93	2002	{15}

Child mortality rates of 2002-03



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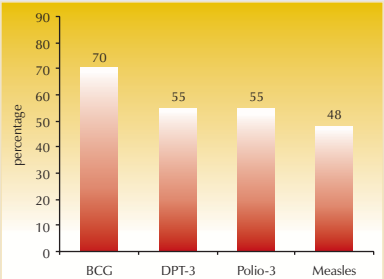
Mortality profile

- Both child mortality and maternal mortality are high.
- Expectation of life at birth at 58 years is the lowest in the Region.
- Communicable diseases account for nearly 60% of deaths, particularly in children.

5 What resources are available for the health sector?

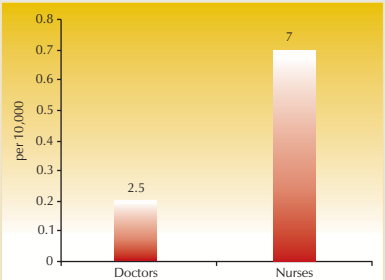
Indicators	Latest available value	Year	Source
Expenditure on health			
Percent of GDP	9.6	2003	{13}
Highest in the world – USA	15.2	2003	{13}
Highest in the Region – Timor-Leste	9.6	2003	
Per capita (US$)	39	2003	{13}
Per capita (Intl.$)	125	2003	{13}
Highest in the world – USA (Intl.$)	5711	2003	{13}
Highest in the Region – Maldives (Intl.$)	364	2003	
Food			
Average dietary energy consumption (kcal/day/person)	2790	2000-2002	{16}
Services			
Community health centres (per 100,000 population)	7.6	2002	{1}
Antenatal care coverage (ANC – at least one visit) (%)	61	1997-2005	{8}
Women that have been immunized with TT during pregnancy (%)	50	2005	{CC}
Deliveries by qualified attendant (%)	32	2005	{CC}
Children immunized (%)			
BCG	70	2005	{24}
DPT-3	55	2005	{24}
Polio-3	55	2005	{24}
Measles	48	2005	{24}
Human resources			
Doctors of modern system (per 10,000 population)	2.5	2005	{CC}
Highest in the world – Cuba	59	2002	{13}
Highest in the Region – DPR Korea	32	2003	
Nurses (per 10,000 population)	7.0	2002	{1}
Highest in the Region – DPR Korea	37	2003	
Midwives (per 10,000 population)	4.0	2004	{13}
Dentists (per 10,000 population)	0.5	2004	{13}
Pharmacists (per 10,000 population)	0.2	2004	{13}
Public and environmental health workers (per 10,000 population)	0.3	2004	{13}
Community health workers (per 10,000 population)	20.2	2004	{13}
Lab technicians (per 10,000 population)	0.4	2004	{13}
Other health workers (per 10,000 population)	0.2	2004	{13}

Immunization coverage in 2006



Data source: 3,6

Human resources in 2002



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Health resources

- Expenditure on health is a substantial part of GDP but since the GDP is low, the per capita expenditure is low.
- Health centres per 100,000 population are within the regional average. There is a shortage of health workers.
- Immunization coverage is not adequate.

Q 6 What is the system of health governance?

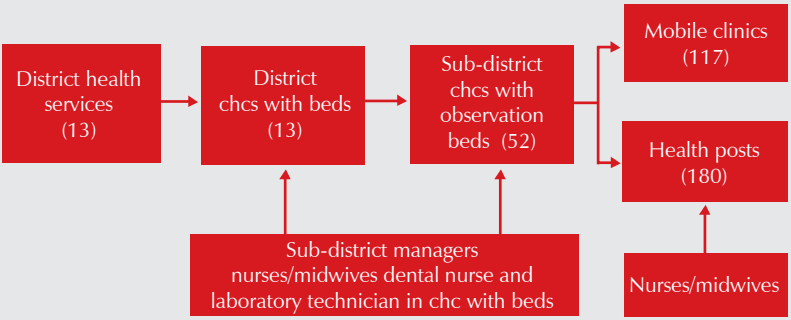
Organization

The Ministry of health has three national directorates reporting to the Permanent Secretary. These are:

- Division of Health Services Delivery
- Division of Health Policy and Planning
- Division of Administration, Financing and Logistic Services

Some central organizations such as the National Laboratory, Institute of Health Sciences, National and Referral Hospitals, and Centre For Drug Supply and Medical Equipment are functioning semi-autonomously but are reporting to the Ministry of Health.

District Health Services are comprised of District Health Centre (CHC), Sub-District Health Centres, Health Posts and Mobile Clinics. Leadership, management and support to health service delivery is provided through District Health Management Teams, with one Head of District Health services and 5-6 other management positions.



As of 2004, there are a total of 13 CHCs with beds in the country. There are six referral hospitals including one national hospital in Dili. Five of these CHCs have only observational beds. General beds are in the hospitals and some CHCs. They provide curative services in accordance with the Basic Services Package at PHC level and the Hospital Services Package at hospital level.

There is a CHC with observation beds at sub-district level. A district-wise count shows that there are a total of 52 such CHCs. Services at the village level are provided by Health Posts (180) and Mobile Clinics. Their areas of operation overlap. There is a sub-district manager at each CHC, supported by nurses and midwives. The services provided by the Health Post and Mobile Clinic include curative consultation, antenatal and postnatal care, immunization, growth monitoring, health education and health promotion activities.

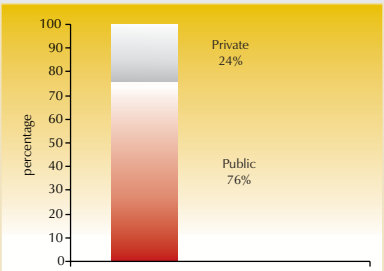
Private sector

Private practitioners, churches, Coffee Producer Cooperatives and other NGOs also contribute substantially to health services.

Q 7 Who pays for health care?

Indicators	Latest available value	Year	Source
Government expenditure on health			
Out of total health expenditure (%)	76	2003	{13}
Per capita (US$)	30	2003	{13}
Per capita (Intl.$)	95	2003	{13}
Highest in the world – Monaco (Intl.$)	3403	2003	{13}
Highest in the Region – Maldives (Intl.$)	324	2003	
Private expenditure on health			
Out of total health expenditure (%)	24	2003	{13}
Per capita (US$)	9	2003	{C}
Per capita (Intl.$)	30	2003	{C}
Lowest in the Region – DPR Korea	0.4	2004	
Out-of-pocket expenditure (% of private expenditure on health)	26	2003	{13}
Per capita (US$)	1	2005	{CC}
Per capita (Intl.$)	8	2003	{C}
Lowest in the world – Tuvalu	13	2003	{13}
Lowest in the Region – Timor-Leste	26	2003	

Health expenditure



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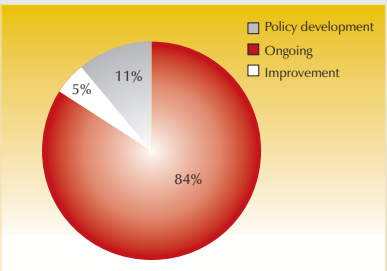
Planned expenditure in health sector 2002-03



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Health expenditure

- The government allocates at least 35% of its budget to education and health. Nearly 60% of health sector expenditure goes to basic health care

Q 8 What are the recent reforms and achievements of the health system?

Health sector reforms

- The progress in policy and process of health development in recent years has been remarkable. The Ministry of Health is widely acknowledged as one of the strongest ministries in the country. The Health Policy Framework was approved in 2002 and Timor-Leste has made tremendous progress in formulating policies and strategies for various activities. Among them are National Child and Adolescent Health Strategy, National Reproductive Health Strategy, National Maternal Nutrition Strategy, National Nutrition Policy, and Guidelines for Food Safety.
- An Integrated Disease Surveillance System (IDSS) has been set up with technical support from WHO. The aim is to collect, collate, analyse, interpret and disseminate the disease data to health managers. The Medical Geographical Information System (GIS) is proposed to be used for mapping the problems and targeting interventions. This system has been used for the planning and implementation of the National Leprosy Elimination, Lymphatic Filariasis Elimination, and Control of Intestinal Parasitic Infections programmes.
- A Health Sector Working Group promoting coordination between the Ministry of Health and development partners is functional, chaired by the Minister of Health. This group will include the donor community, UN agencies and NGOs working in the health sector.

Achievements

- The basic infrastructure and health facilities have been rehabilitated and reconstructed at the district and sub-district levels, which are vital for ensuring access to health care by the people. All hospitals are in the process of being rehabilitated and/or reconstructed and still following the policy that not more than 40% of health expenditure can go to the hospital sector.

- Policies and strategies for various activities are being framed. Staff is being trained. Thus, the whole health system is being set up quickly to take care of the health needs of the people.
- As a young country, Timor-Leste has made considerable progress in compiling information on a number of key indicators. Much of the data are generated through surveys conducted over a few months. Some data are generated through routine administrative channels.
- Achievements in terms of health indicators are not yet visible as efforts are focused on establishing the baseline. Improvements will be assessed in future.
- With the re-establishment and rehabilitation of the entire health infrastructure, there has been a steady improvement of key indicators, but this progress has somewhat slowed down. New initiatives with stronger emphasis on community involvement are now planned to further improve health services delivery.

Legislation

- Timor-Leste has made progress in framing a comprehensive set of health legislations. The Health System Law and the Organic Structure Law have been approved. Among others approved are: Decree for Private Practice, Pharmaceutical Law, Health Professional Law, Disease Surveillance Decree, and Health Sanitation Decree.

9 What are the constraints and challenges of the health system?

Financial constraints

- Timor-Leste is amongst the poorest nations in the world. Considerable progress has been made in a short period after independence. External assistance has been a major input so far, but with a gradual increase in oil and gas revenues, the Government has increased the budget allocation to the health and education sectors.
- Substantial resources have been invested, and more are needed to rebuild the entire health infrastructure, especially in remote areas.
- Substantial resources are also needed for training and human resource development. There is a scarcity of human resources for health including health managers, doctors, nurses and paramedical staff. This includes training, fellowships and strengthening of training institutes in the country.

Expertise and other physical constraints

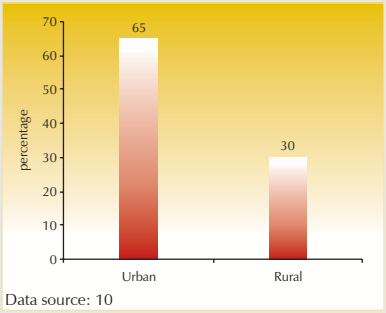
- Lack of human resources in the public health system and their limited technical capability is a major constraint in reducing the incidence of health problems and controlling communicable diseases. The intervention in all areas of public health need to focus on upgrading human resources.
- The country is dependent on expatriate physicians and surgeons to provide medical care, which may not be sustainable. It will be several years before there is an adequate supply of Timorese specialists.
- It is difficult to attract midwives to work in remote locations, with no communication.
- Shortage of basic drugs and adequate equipment is common in health facilities.

Social constraints

- The contraceptive prevalence is very low?less than 10% married women of age 15-49 years are using a modern contraceptive method.
- There is inadequate awareness of health problems, particularly among women, and a general lack of understanding of health benefits. Marriage and pregnancy occur early in life, and distribution of food and health care in the family favour boys. Gender issues are neglected.

Indicators	Latest available value	Year	Source
Inequalities–Gender			
Expectation of life at birth F:M	1.04	2003	{5}
Female share in employment (non-agricultural sector) (%)	35	2001	{4}
Seats held in parliament – F (%)	28.0	2001	{4}
Ratio of girls to boys in primary schools (%)	91	2001	{4}
Inequalities–Spatial			
Population with access to safe water			
Urban	72	2002	{10}
Rural	51	2002	{10}

Sanitation coverage in urban and rural area, 2002



Data source: 10

Health sector constraints

- The complete health infrastructure is being rebuilt. Buildings, equipment, staff and facilities are being rapidly put into place to provide the services.
- Poor and unequal access to health services, the absence of a regulatory framework, and an unequal referral system are some of the problems affecting health system performance.
- There is a need for further technical monitoring in health sector development such as for development and refining health sector strategies and policies, development of long-term budget requirements and capacity building of local staff.
- Drug legislation and policies are lacking and implementation of the existing regulations is poor. Pharmacists need to be trained.
- The capacity of laboratories is limited. Laboratories at district and peripheral levels carry out only malaria and tuberculosis microscopy. The Central Laboratory in Dili conducts only a limited range of tests.
- Vaccination activities at local level are undertaken on a weekly or monthly basis.
- The health service delivery capacity of the government is limited by human resource and technical skill constraints, as well as by more availability of adequate basic equipment and drugs. All these are in short supply.
- Information on some key indicators such as the population below the minimum level of dietary energy consumption and prevalence of tuberculosis is lacking.

Challenges

Health services

- Service delivery to a scattered population is causing extreme difficulties.
- Restoring water facilities is proving to be a big challenge in the absence of expertise.

- A detailed analysis of the factors that can accelerate progress is required. The action plan may require inter-sectoral coordination including help from civil society.
- A majority of the population has had little experience with modern water and sanitation practices, and do not understand the hazards of unsafe conditions. Addressing such problems requires a pervasive change in human behaviour. This will be an enormous challenge.

Control of communicable diseases

- Malaria is highly endemic in all districts, with the highest morbidity and mortality reported in children. Malaria showed a three-fold increase after 1999. Lymphatic filariasis is also highly endemic.

Health information

- There are significant discrepancies in the information on some indicators emerging from the surveys and those generated through the administrative channels. These need to be reconciled.

Q 10 What does the country hope to achieve in the near future in health?

- East Timor–2020: Our Nation, Our Future' summarizes the people's priorities and challenges. This vision encompasses peace, security, freedom, tolerance, equity, improved health and education, access to jobs and food security. For health, it says that people will be healthy, and live a long, productive life. The health vision is 'Healthy Timor-Leste people in a healthy Timor-Leste'.
- The five-year (2002-07) National Development Plan has improving the health as an overriding objective alongwith several other development objectives. For improving health, the plan emphasizes preventive and promotive health care, by adopting primary health care policies that enable increased accessibility and coverage; targets specific groups such as mothers and children for the greatest health impact; and aims to develop health staffing policies appropriate to the needs of the country.
- The National Development Plan also envisages adequate, safe and sustainable water supply and sanitation for villages through community-managed water supply and sanitation facilities. In Dili and other major urban centres, the aim is to recover full cost from the users of water supply.
- The Ministry of Health aims to provide quality health care by establishing and developing a cost-effective and needs-based health system which specifically addresses the health issues and problems of women, children and other vulnerable groups, particularly the poor, in a participatory manner.
- The Ministry of Health has drafted a national policy on immunization that aims to improve health promotion and education regarding the benefits of immunization and to improve the coverage in all districts.

- The national objectives for health include health promotion and education of pregnant women and family members; promotion of exclusive breast-feeding for six months and introduction of safe and nutritionally adequate complementary foods thereafter; improving ante-natal, delivery and newborn care by training medical staff; and establishing adequate facilities and promote appropriate family practices. The country is developing a national Safe Motherhood Strategy that aims to work with other partners to increase the proportion of births attended by trained personnel.
- The aim also is to develop a national child health policy, training for Integrated Management of Childhood Illnesses, implement the integrated child development programme, develop and implement community nutrition activities, and strengthen routine growth monitoring of children upto the age of five years.
- The tentative national targets are to reduce infant mortality by 30% from the baseline by 2010 and by 40% by 2015. For immunization, the target is to achieve and maintain 90% coverage by 2015. For maternal mortality, the target is to reduce it by 40% by 2010 and by more than 50% by 2015. The proportion of attended births are to be increased by 40% by 2015. The country hopes to realize most of the MDG targets.
- The Ministry of Health is preparing a National Health Strategic Plan 2007-2012, including a Medium Term Expenditure Framework. This is an additional step towards SWAP.

Q 11 How is WHO collaborating with the country?

Policy development and planning

- During the emergency period, WHO played a key role in coordinating health services provided by a large number of donors. WHO supported the initial development of the organization and staff of the Ministry of Health and it also implemented priority activities for rebuilding the health sector. This was particularly during the emergency and early rehabilitation phases, using funds allocated for the Ministry of Health from the Trust Fund for East Timor (TFET).
- The Ministry of Health was assisted in the development of annual workplans, mentoring of national staff, development of internal department policies, and a national health promotion strategy as well as regular development and delivery of health campaigns and messages.
- Coordination of work between health and other sectors such as water and sanitation in the development of facilities for personal and community hygiene and sanitation was supported.

  The Ministry of Health was assisted in preparation of the National Strategic Plan

Health system management

- WHO worked with the Ministry to augment the number of health professionals by developing local training programmes for nurses and paramedics, and through fellowships for training in institutions abroad. An advance of nursing practice course to strengthen the essential clinical skills of nurses, especially those working without doctors in the sub-district Community Health Centres has been developed.

- Assistance was provided in quality control of medicines purchased by the government. Kits were also provided for timely detection of water sources.
- The Ministry of health was supported in development and use of a management course for Community Health Centre managers.

Promotion of healthy lifestyles and settings

- The Ministry of Health developed a National Health Promotion Strategy with the assistance of WHO, and the involvement of other partners and stakeholders, through a series of workshops at the sub-district, district and national levels. The strategy outlines the ways to promote all aspects of health.
- WHO is actively working with an increasing number of local NGOs such as Cruz Vermelha De Timor-Leste (CVTL) and the National Red Cross Society for capacity building. Activities of CVTL include training in first-aid and disaster management as well as social mobilization.
- Extensive support was provided in addressing the risk factors and determinants of ill-health. Also the promotive and preventive activities pertaining to priority issues were strenghtened.
- Health communication activities as well as scientific meetings were conducted to address the issue of tobacco abuse. In addition, a mental health strategy was developed. Technical assistance was also provided for development of guidelines for food safety.
- The formulation of the National Child and Adolescent Health Strategy and the National Reproductive Health Strategy was supported. WHO participated in the consultation process for finalisation of national nutrition policy and assisted in the development of the National Maternal Nutrition Strategy.
- Assistance was provided for the development of a policy paper on road accidents injury prevention. The strategies, programmes and draft legislation for road accident injuries have been prepared.

Prevention and control of priority diseases

- Technical assistance was provided for control of communicable diseases and to develop a system of a nationwide weekly

epidemiological bulletin. Several investigations were conducted on outbreaks of various communicable diseases. WHO cooperated with NGOs in a national 'Roll Back Malaria Programme' which included distribution of insecticide-treated nets.

- Assistance was provided in the development of a proposal for combating malaria, and another proposal against tuberculosis. Both were submitted to the Global Fund Against HIV/AIDS, Tuberculosis and Malaria (GFATM). Both proposals were successful.
- WHO provided full financial and technical support for the implementation of the Integrated Management of Childhood Illnesses (IMCI). In addition to training government staff, in-roads have been made into the private sector as well. Training for the treatment of severe cases of malnutrition was provided to general staff.
- Training on the syndromic approach to sexually transmitted infections was developed and conducted for health workers in the government and nongovernmental health sectors. WHO also assisted in development of workplans to implement the national HIV/AIDS strategy adopted by the Ministry.
- A national survey was carried on leprosy in order to re-establish the National Leprosy Elimination Programme. WHO conducted a study to determine the prevalence of Japanese encephalitis and outlined major intervention strategies. During the worldwide outbreak of SARS, WHO was in the forefront for providing appropriate information and preparing infection control measures. It also assisted in the development of a local field manual on the management of all communicable diseases.
- Technical assistance was provided in strengthening Integrated Disease Surveillance System and in building the capacity of the Ministry to detect and respond to epidemics and pandemics, and in preparing an Avian Influenza Epidemic Preparedness Plan.
- Working closely with UNICEF and later the Ministry of Health, WHO supported immunization campaigns and routine immunization programmes.

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Abbreviations

AIDS	acquired immunodeficiency syndrome
AMOH	additional medical officer of health
ANC	antenatal care
ARI	acute respiratory infection
ARV	anti retro viral
ASHA	Accredited Social Health Activist
AYUSH	ayurveda, unani, siddha and homeopathy
BCG	bacillus calmette guerin
C	computed value
CC	country comments
CHC	community health centre
COPD	chronic obstructive pulmonary disease
CVTL	cruz vermelha de timor-leste
DALYs	disability adjusted life years
DFID	Department for International Development (UK)
DGFP	Director General Family Planning
DOTS	directly observed treatment short-course
DPDHS	Deputy Provincial Director of Health Services
DPR	Democratic People's Republic
DPT-3	three doses of diptheria, pertussis and tetanus vaccine
ELB	expectation of life at birth
EPI	expanded programme on immunization
ESCAP	Economic and Social Commission for Asia and Pacific
F	female
FAO	Food and Agriculture Organization
FCHV	female community health volunteer
FP	family planning

GAVI	Global Alliance for Vaccines and Immunization
GDP	gross domestic product
GFATM	Global Fund Against AIDS, Tuberculosis and Malaria
GIS	geographical information system
GNI	gross national income
HDI	human development index
HDR	human development report
HIS	health information system
HIV	human immunodeficiency virus
HMIS	health management information system
HNP	health, nutrition and population
HNPSP	Health, Nutrition and Population Sector Programme
HS-PROD	health sector policy reform option database
ICDS	integrated child development scheme
IDSP	integrated disease surveillance project
IDSS	integrated disease surveillance system
IEC	information, education and communication
ILO	International Labour Organization
IMCI	integrated management of childhood illnesses
IMR	infant mortality rate
INGO	international nongovernmental organization
Intl.$	international dollar
ISO	International Standard Organization
IT	information technology
KABP	knowledge, attitude, behaviour and practice
LBW	low birth weight
LTTE	liberation tigers of tamil eelam
M	male
MCH	maternal and child health

MDG	millennium development goals
MOH	Ministry of Health
MOH	medical officer of health
NA	not available
NCD	noncommunicable diseases
NGO	nongovernment organization
NMR	neonatal mortality rate
ORS	oral rehydration solution
PHC	primary health centre
PHC	primary health care
RHC	rural health centre
RNTCP	Revised National Tuberculosis Control Programme
SAARC	South Asian Association for Regional Cooperation
SARS	severe acute respiratory syndrome
SD	standard deviation
SEARO	Regional Office for South-East Asia
STD	sexually transmitted disease
TB	tuberculosis
TBA	trained birth attendant
TFET	Trust Fund for East Timor
TFR	total fertlity rate
TT	tetanus toxoid
U5MR	under-five mortality rate
UAE	United Arab Emirates
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNFPA	United Nations Population Fund
UNODC	United Nations Office on Drugs and Crime
USA	United States of America
WHO	World Health Organization

Definitions

Adult literacy rate (%): The percentage of persons aged 15 years and above who can read and write. The application of this definition is subject to qualifiers in each country and at each census. (UN, *1999 Demographic Yearbook*)

Antenatal care coverage (Percentage of pregnant women covered): The annual number of pregnant women attended by trained personnel per 100 live births in the same year. (WHO, *Evaluating the implementation of the strategy for health for all by the year 2000, Common Framework, Second Evaluation*)

Area: The total surface area, comprising land area and inland waters (assumed to consist of major rivers and lakes) and excluding only polar regions and uninhabited islands. (UN, *2000 Demographic Yearbook*)

Average dietary energy consumption per person: It refers to the amount of food, expressed in kilocalories (kcal) per day, available for each individual in the total population during the reference period. Caloric content is derived by applying the appropriate food composition factors to the quantities of the commodities. Per person supplies are derived from the total amount of food available for human consumption by dividing total calories by total population actually partaking of the food supplies during the reference period. (FAO, *Statistics Division 2006)*

Beds per 1000 population (Bed density): The ratio of the total number of (hospital) beds available in the country to the total population, expressed per 1000 population. (http://www.who.int/healthinfo/statistics/indhospitalbeds/en/index.html)

Birth rate (per 1000 population): The annual number of live births occurring per thousand mid-year population. (UN, *1993 Demographic Yearbook*)

Children (Infants) immunized with BCG (%): The percentage of infants immunized against tuberculosis (one dose) before reaching their first birthday. (WHO, *Implementation of Strategies for Health for All by the Year 2000, Third Monitoring of Progress, Common Framework*)

Children (Infants) immunized with DTP-3 (%): The percentage of infants immunized against diphtheria, tetanus, and whooping cough

(three doses according to the immunization scheme adopted in the country) before reaching their first birthday. (WHO, *Implementation of Strategies for Health for All by the Year 2000, Third Monitoring of Progress, Common Framework*)

Children (Infants) immunized with polio-3 (%): The percentage of infants immunized against poliomyelitis (three doses) before reaching their first birthday. (WHO, *Implementation of Strategies for Health for All by the Year 2000, Third Monitoring of Progress, Common Framework*)

Contraceptive prevalence (Percentage of contraceptive users): The number of women of child-bearing age (15-49 or 15-44 years) using any method of contraception per 100 women of child-bearing age. (WHO, *Evaluating the implementation of the strategy for health for all by the year 2000, Common Framework, Second Evaluation*)

Crude death rate (per 1000 population): The annual number of deaths occurring per thousand mid-year population. (UN, *2000 Demographic Yearbook*)

Deliveries by qualified attendant (skilled health personnel): The number of deliveries attended by trained health personnel per 100 deliveries. (WHO)

Density of population (per sq km): The number of persons in the total population for a given year per square kilometer of total surface area. (UN, *2000 Demographic Yearbook*)

Dependency ratio: The ratio of persons in the "dependent" ages (under 15 years plus 65 years or older) to those in the "economically productive" ages (15-64 years). This ratio is usually referred to as the total dependency ratio, while the first component of the numerator (children under age 15) is called child or young dependency ratio, and the second component (those aged 65 and over), old-age or old dependency ratio. (UN, *World Population Policies Vol .III 1990*). This book uses 60 years instead of 65 years in accordance with the pattern in this Region.

Doctors per 1000 population: The ratio of total number of doctors working in the country to the total population, expressed per 1000 population. (WHO, *World Health Statistics 2005* for Physician's density)

DPT-3: Three completed doses of vaccine against diphtheria, pertussis (whooping cough) and tetanus.

Elder: A person aged 60 years or more. (WHO, *Health Statistics Annual 1987*)

Expectation of life at birth (Life expectancy at birth): The number of years newborn children would live if subject to the mortality risks prevailing for a cross-section of the population at the time of their birth. (UNICEF, *The State of the World's Children 1997*)

Expectation of healthy years lost: The expected equivalent number of years of full health lost (in life time) through living in health states other than full health. (WHO, *World Health Report 2004*)

Expenditure on health (as % of GDP): The ratio of total expenditure on health from all sources to the gross domestic product of the country, expressed in percentage.

Expenditure on health per capita (international dollars): The average amount in international dollars spent per person on health in the country.

Gender-related development index (GDI): An adjustment of the human development index (HDI) for gender equity in life expectancy, educational attainment and income. (UNDP, *Human Development Report 2003*)

General government expenditure on health: It is estimated as the sum of outlays by government entities to purchase health care services and goods: notably by ministries of health and social security agencies. (WHO, *World Health Report 2006*)

Gross national income (GNI) per capita (US $): Formerly Gross National Product or GNP, the broadest measure of national income, measures total value added from domestic and foreign sources claimed by residents. GNI comprises Gross Domestic Product (GDP) plus net receipts of primary income from foreign sources. Data are converted from national currency to current US Dollars using the World Bank Atlas Method. This involves using a 3-year average of exchange rates. (World Bank, *World Development Report 2002*)

Health workers per 1000 population: The ratio of total number of health workers such as (as per definition of the country) in the country to the total population, expressed per 1000 population.

Human development index (HDI): Composite of three indicators which reflect important dimensions of human development: longevity as measured by life expectancy at birth; educational attainment as measured by a combination of adult literacy (two-thirds weight) and combined primary, secondary and tertiary enrolment ratios (one-third weight); and standard of living as measured by real GDP per capita (in purchasing power parity dollars). (UNDP, *Human Development Report 2003*)

Human poverty index (HPI-1) for developing countries: A composite index measuring deprivations in the three basic dimensions captured in the human development index—a long and healthy life, knowledge and a decent standard of living. (UNDP, *Human Development Report 2004*)

Incidence: The number of instances of illness commencing, or of persons falling ill, during a given period in a specified population. More generally, the number of new events, e.g., new cases of a disease in a defined population, within a specified period of time. The term incidence is sometimes used to denote "incidence rate". Incidence rate is the rate at which new events occur in a population. The numerator is the number of new events that occur in a defined period; the denominator is the population at risk of experiencing the event during this period, sometimes expressed as person-time. The incidence rate most often used in public health practice is calculated by the formula

$$\frac{\text{Number of new events in specific period}}{\text{Number of persons exposed to risk during this period}} \times 10^n$$

(John M. Last, International Epidemiological Association, *A Dictionary of Epidemiology*, Third Edition)

Infant mortality rate (IMR): The number of deaths under one year of age per 1,000 live births. (WHO, *International Statistical Classification of Diseases and Related Health Problems - Tenth Revision)*

Intl.$ (Purchasing power parity) (PPP$): The purchasing power of a country's currency, the number of units of that currency required to purchase the same representative basket of goods and services (or a similar basket of goods and services) that a US dollar (the reference currency) would buy in the United States. (UNDP, *Human Development Report 1997*)

Literacy rate 15-24 years (Youth literacy rate): Percentage of population aged 15-24 years who can both read and write with understanding a short simple statement on everyday life. (UN, *MDG*)

Low birth weight: Birth weight less than 2500 grams (up to and including 2499 grams). (WHO, *International Statistical Classification of Diseases and Related Health Problems - Ninth Revision*)

Malaria death rate per 100,000 in all age groups: People of all age groups, who died due to malaria in a given year per 100,000 population (WHO).

Malaria prevalence rate per 100,000 population: Proportion of notified or reported cases of malaria per 100,000 population in a given year (WHO).

Maternal mortality ratio: Annual number of maternal deaths per 100,000 live-births. A maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes. (WHO, *ICD-10*)

Neonatal mortality rate: Number of deaths during the first 28 days of life per 1,000 live births in a given year or period. *(http://www.who.int/healthinfo/statistics/indneonatalmortality/en/)*

Net enrolment ratio: The number of students enrolled in a level of education who are of official school age for that level, as a percentage of the population of official school age for that level. (UNDP, *Human Development Report 2004*)

Nurses per 1000 population: The ratio of total number of nurses working in the country to the total population, expressed per 1000 population. (WHO, *World Health Statistics 2005* for Nurse density)

One-year-old immunized against measles (Infants immunized with measles vaccine) (%): The percentage of infants fully immunized against measles (one dose) before reaching their first birthday. (WHO, *Implementation of Strategies for Health for All by the Year 2000, Third Monitoring of Progress, Common Framework*)

Out-of-pocket expenditure (spending): The direct outlays of households, including gratuities and in-kind payments made to health practitioners and to suppliers of pharmaceuticals, therapeutic appliances and other goods and services, whose primary intent is to contribute to the restoration or the enhancement of the health status of individuals or population groups. (WHO, *World Health Report 2006*)

Polio-3: Three completed doses of oral poliomyelitis vaccine.

Population below minimum level of dietary energy consumption: Since there is no specific data available, proxy indicator "**Proportion of population undernourished**" is used. It is the proportion of persons whose food intake falls below the minimum requirement or food intake that is insufficient to meet dietary energy requirements continuously. (FAO)

Population below national poverty line (National poverty rate): The percentage of the population living below the national poverty line**.** *(*World Bank, *World Development Report 2006*)

Population below poverty line ($1 a day): The percentage of the population living on less than $1.08 a day at 1993 international prices. (World Bank, *World Development Report 2006, p.286)*

Population growth rate per year (%): This is computed by taking into account the crude birth rate, the crude death rate, and the net international migration rate of a country for a given year. (Rates have been computed as average annual rates of population growth over periods of five years.) It is an algebraic sum of the natural growth rate (crude birth rate minus crude death rate) and the net international migration rate, expressed as a percentage. (UN, *World Population Prospects, The 2000 Revision*)

Population with access to improved (adequate) sanitation (%): The percentage of the population with adequate excreta-disposal facilities

that can effectively prevent human, animal and insect contact with excreta. (WHO, *World Health Report 1996*)

Population with access to improved (safe) water (%): The percentage of the population with safe drinking-water available in the home or with reasonable access to treated surface waters and untreated but uncontaminated water such as that from protected boreholes, springs and sanitary wells. (WHO, *World Health Report 1996*)

Poverty: The inability to attain a minimum standard of living. The World Bank uses a poverty line of consumption less than US$1.00 a day (at constant 1985 prices) per person (World Bank 1993). UNICEF defines the absolute poverty level as the income level below which a minimum nutritionally adequate diet plus essential non-food requirements is not affordable. (UNICEF 1995).

Prevalence: The number of events, e.g., instances of a given disease or other condition, in a given population at a designated time; sometimes used to mean "prevalence rate". When used without qualification, the term usually refers to the situation at a specified point in time (point prevalence). Prevalence rate (ratio) is the total number of all individuals who have an attribute or disease at a particular time (or during a particular period) divided by the population at risk of having the attribute or disease at this point in time or midway through the period. (John M. Last, International Epidemiological Association, *A Dictionary of Epidemiology*, Third Edition)

Private expenditure on health: It includes total outlays on health by private entities: notably commercial insurance, non-profit institutions, households acting as complementary funders to the previously cited institutions or disbursing unilaterally on health commodities. The revenue base of these entities may comprise multiple sources, including external funds. (WHO, *World Health Report 2006*)

Public share to total health expenditure (%): The percentage of government expenditure on health to the total health expenditure.

Seats in parliament held by women (% of total): The percentage of seats held by women in a lower house or an upper house or senate, where relevant. (UNDP, *Human Development Report 2006*) to the total seats.

Sex ratio: The number of females in the population for every 100 males.

Social security expenditure on health: Includes outlays for purchases of health goods and services by schemes that are mandatory and controlled by government. Such social security schemes that apply to selected groups of the population such as public sector employees only are also included. (WHO, *Whosis/HealthFinancing*)

Stunted (Under-height for age) children under age five years: Includes moderate and severe stunting, defined as more than two standard deviations below the median height for age of the reference population. *(*UNDP, *Human Development Report 2004*)

Total fertility rate (TFR): The number of children that would be born per woman if she were to live to the end of her child-bearing years and bear children at each age in accordance with prevailing age-specific fertility rates. (UNICEF, *The State of the World's Children 1996*)

Total health expenditure: It has been defined as the sum of general government expenditure on health (commonly called public expenditure on health), and private expenditure on health. (WHO, *World Health Report 2006*)

Total population: The mid-year estimate of the total population of a country or area as prepared by the Population Division of the United Nations based on their methodology for estimations and projections to provide a consistent series of demographic parameters for every country of the world. (UN, *World Population Prospects, The 1994 Revision*)

Tuberculosis death rate per 100,000: Proportion of people of all age-groups, who died due to tuberculosis in a given year. (WHO)

Tuberculosis prevalence rate per 100,000: Proportion of tuberculosis cases of all age-groups per 100,000 population in a given year (WHO)

Under-five mortality rate (U5MR): The annual number of deaths of children under five years of age per 1000 live births. (WHO, *World Health Report 1996*)

Under-weight children (under-five years of age): Proportion of children of under-five years with low weight-for-age as measured by percentage of children in moderate and severe malnutrition – those falling below

80% of the median weight for reference value or below 2 standard deviations of national or international reference populations, such as growth charts of the US National Center for Health Statistics. (UNICEF)

Urban population: The number of persons residing in urban localities. The definition of urban locality varies from country to country, and the definitions used by Member States of the South East Asia Region are as follows:

Bangladesh: Places having a municipality (pourashava), a town committee (shahar committee) or a cantonment board.

India: Towns (places with municipal corporation, municipal area committee, town committee, notified area committee or cantonment board); also, all places having 5000 or more inhabitants, a density of not less than 1000 persons per square mile or 390 per square kilometer, pronounced urban characteristics and at least three-fourths of the adult male population employed in pursuits other than agriculture.

Indonesia: Municipalities, regency capitals and other places with urban characteristics.

Maldives: Male', the capital.

Nepal: Localities of 9000 or more inhabitants.

Sri Lanka: Municipalities, urban councils and towns.

Thailand: Municipal areas.

For *Bhutan*, *DPR Korea*, and *Myanmar*, no definition of "urban" is available. (UN, *Demographic Yearbook, 1988 and 1993*)

The health status of the population in Member countries of WHO's South-East Asia Region and the stage of health system development varies from country to country. This book provides, in a user-friendly way, the essential features of health and health systems in the Member countries of the Region. Each chapter shows key indicators of each country, comparing some of them to global and regional figures. The book also summarizes the main features of the countries' health system development. It is an information document providing at a glance, the health profile of the countries for those interested in health developments in the South-East Asia Region.

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