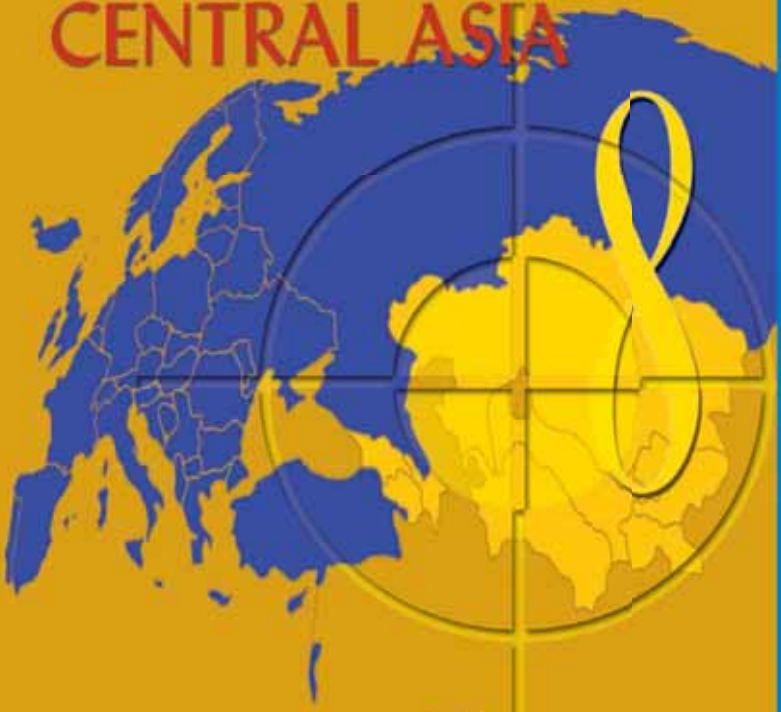
10 HEALTH QUESTIONS ABOUT THE CAUCASUS AND CENTRAL ASIA



EUROPE

Armenia

Azerbaijan

Georgia

Kazakhstan

Kyrgyzstan

Tajikistan

Turkmenistan

Uzbekistan

WORLD HEALTH ORGANIZATION
EUROPE

10 health questions about the Caucasus and central Asia

By: Elke Jakubowski and Albena Arnaudova

Keywords

VITAL STATISTICS
DELIVERY OF HEALTH CARE
HEALTH STATUS INDICATORS
PUBLIC HEALTH ADMINISTRATION
FINANCING, HEALTH
COMPARATIVE STUDY
ARMENIA
AZERBAIJAN
GEORGIA
KAZAKHSTAN
KYRGYZSTAN
TAJIKISTAN
TURKMENISTAN
UZBEKISTAN
ASIA, CENTRAL

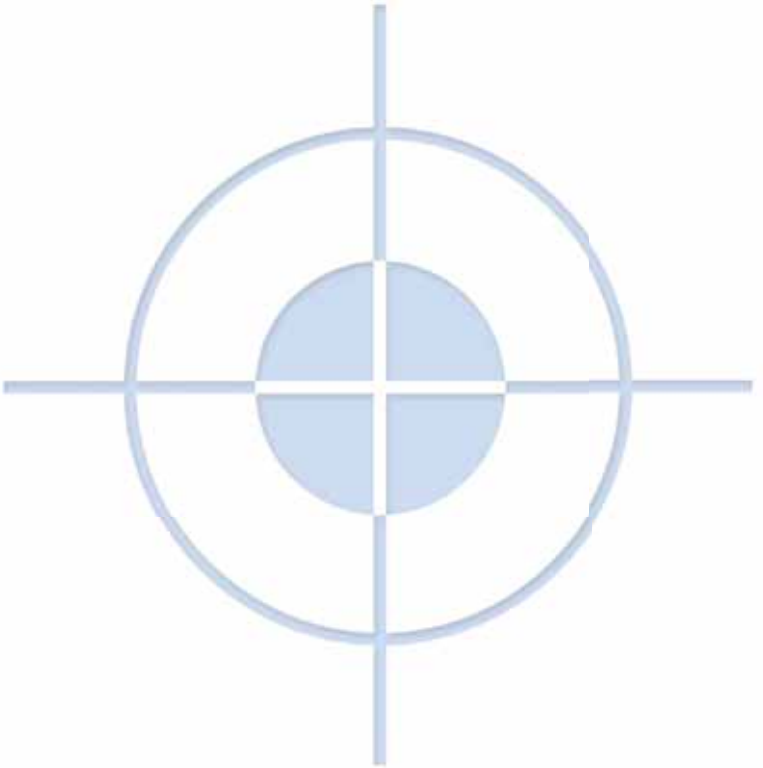
ISBN 978 92 890 4169 0

Address requests about publications of the WHO Regional Office for Europe to:

Publications
WHO Regional Office for Europe
Scherfigsvej 8
DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office web site (http://www.euro.who.int/pubrequest).

CONTENTS

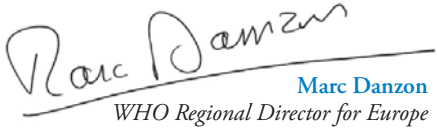


FOREWORD

This series presents the WHO European Member States in groups according to how they relate to the European Union (EU). The first book was on the 10 countries that joined the EU on 1 May 2004. Two years later, "10 health questions about the new EU neighbours" presented the 12 countries that became the geographical neighbours (those with a common border) of the EU after the 2004 enlargement. That second book included only three of the countries covered by the European Neighbourhood Policy of the EU. The Caucasus republics remained outside the picture as well as the five central Asian republics, with which the EU develops relations through its Development Cooperation Instrument.

This new book, the third in the series, aims to complete the overview of how different groups of WHO European Member States compare with the countries in the EU. The eight countries presented here are one group among all the 53 WHO European Member States. We work with them all, and we have great knowledge of their health situation and the issues of concern. Across the Region, health gaps have been deepening. Our mission is to share the evidence we have – putting national data and knowledge in the broader European context.

This book compares national data from each of the countries with the average data for three groups – their own, the 15 countries that were members of the EU before 1 May 2004 and the 27 current EU Member States. Comparisons as a way of presenting facts are a compelling source of information to be used for action. I believe this way of presenting knowledge can be useful for policy-makers and stakeholders, within countries and internationally. It may support those whose mission is to act on health disparities, with the goal of alleviating the striking differences in health status among citizens across the WHO European Region.



Marc Danzon
WHO Regional Director for Europe

ACRONYMS

AIDS	acquired immunodeficiency syndrome
BMI	body mass index
CIS	Commonwealth of Independent States
CIS8	Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan
DALY	disability-adjusted life-year
DFID	United Kingdom Department for International Development
DTP3	three doses of diphtheria toxoid, tetanus toxoid and pertussis vaccine
EBRD	European Bank for Reconstruction and Development
EU	European Union
EU15	the 15 countries in the European Union before May 2004
EU27	all 27 countries in the European Union
FAO	Food and Agriculture Organization of the United Nations
GDP	gross domestic product
GP	general practitioner
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (owned by the Government of Germany)
HALE	health-adjusted life expectancy
HIV	human immunodeficiency virus
IMF	International Monetary Fund
IOM	International Organization for Migration
JICA	Japan International Cooperation Agency
NA	not available
OSCE	Organization for Security and Co-operation in Europe
SIDA	Swedish International Development Cooperation Agency
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme

UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNHCR	Office of the United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WHO	World Health Organization
WTO	World Trade Organization

TECHNICAL NOTES

The data in this publication were compiled from a wide range of sources. Health data vary from one source to another, and, due to different methodological approaches, are not always fully compatible. As one of the key aims of the publication is to draw the health picture of each of the eight countries compared with other countries in the WHO European Region, priority was given to figures that lend themselves to reliable and meaningful comparisons. Data on certain indicators may therefore not reflect the latest available national statistics because earlier years were chosen to allow the linking of national and international data. Even then, comparisons were not always possible, since the national health information systems and their coverage, completeness and quality may vary substantially.

Throughout the publication, three abbreviations are used for certain groupings of countries. For the European Union (EU), the EU27 is used for the 27 countries that have been members since 1 May 2007. EU15 refers to the 15 EU countries before 1 May 2004. The CIS8 countries in this publication comprise Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. In this publication, they are grouped exclusively for comparing them to the reference groups EU15 and EU27.

The source numbers at the end of each section denote items in the numbered list of references.

Health and system data from WHO and other international sources and national reports vary substantially. National data are not always systematically available, and where they are available they are often unreliable. The lack of quality in available data compromises an objective presentation of the health status and the health system profile.

Most of the data refer to 2003–2006 and originate from the European Health for All database, July 2008, of the WHO Regional Office for Europe. Data stem from 2006 unless stated otherwise.

The WHO estimates on causes of death and probability of dying account for underreporting and misclassification of national data and therefore differ from countries' data.

The Regional Office uses different mortality and morbidity data to achieve reliable and comparable estimates of the burden of disease and healthy life expectancy for WHO Member States.

Health-adjusted life expectancy (HALE) and disability-adjusted life-years (DALYs) are summary measures of population health that combine information on mortality and nonfatal health outcomes to represent population health in a single number. They complement mortality indicators by estimating the relative contributions of different causes to the overall loss of health in populations.

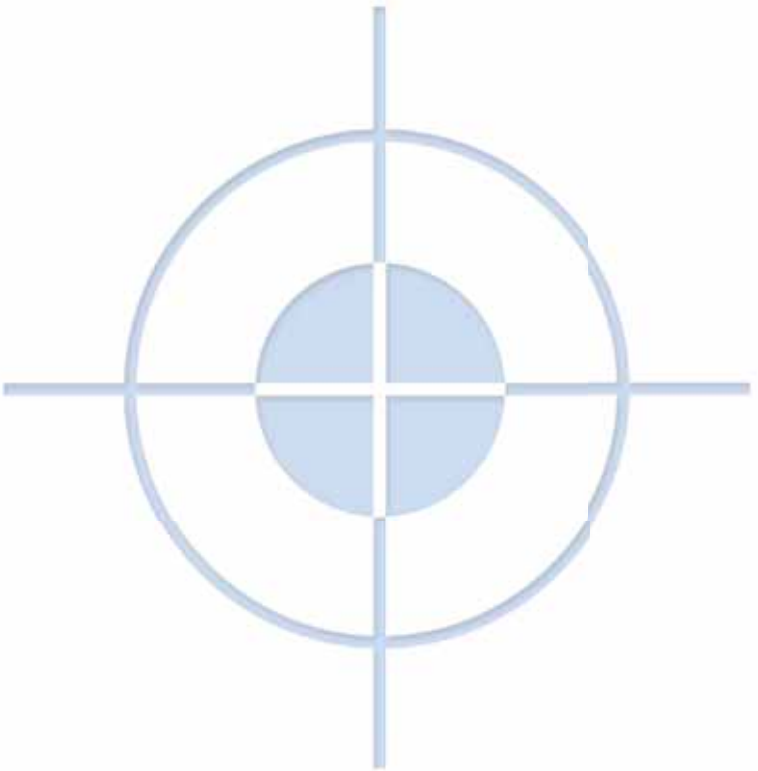
DALYs are based on cause-of-death information for each WHO region and on regional assessments of the epidemiology of major disabling conditions. DALYs are the estimates for 2002 calculated by WHO for *The world health report 2004*. Further methodological details on the global burden of disease are available at: http://www.who.int/healthinfo/bod/en/index.html. The country group averages are population-weighted and calculated by the WHO Regional Office for Europe.

National estimates of HALE are based on the life tables for each country, surveys of a sample representative of the population assessing physical and cognitive disability and general health status and on detailed information on the epidemiology of major disabling conditions in each country.

The health expenditure indicators are based on WHO National Account Data from 2007 (http://www.who.int/nha/country/en/index.html). These figures are updated estimates. Foreign aid to health budgets is normally included in the figure for public expenditure for health as a percentage of the total expenditure for health.

For immunization, DTP3 is used as an indicator of vaccination coverage.

Statistics on occupational diseases and accidents are based on national legislation, which varies by country.



ACKNOWLEDGEMENTS

This book is a product of a collective contribution from a range of partners and colleagues with different forms of expertise.

Particular appreciation is due to Mika Gissler, from the Information Division at the National Research and Development Centre for Welfare and Health (STAKES), Finland, and for Claudio Politi, from the WHO Regional Office for Europe, for providing data. The work of the text editor, David Breuer, was also indispensable.

Within the WHO Regional Office for Europe, many experts contributed to developing these health profiles, providing comments and reviews based on their knowledge of particular countries. Their intensive and in-depth contributions have made the book what it is now. Special gratitude to:

- staff of the WHO country offices and WHO Regional Office for Europe experts working in countries: Elizabeth Danielyan, Jenni Kehler and Jens Wilkens (Armenia), Kamran Garakhanov and Jenni Kehler (Azerbaijan), Gabit Ismailov (Kazakhstan), Antonio Duran and Rusudan Klimiashvili (Georgia), Joe Kutzin and Oscon Moldokulov (Kyrgyzstan), Santino Severoni (Tajikistan), Bahtygul Karriyeva (Turkmenistan) and Zakir Khodjaev and Michel Tailhades (Uzbekistan);
- technical experts of the WHO Regional Office for Europe: Enrique Loyola on the burden of disease estimates, Joe Kutzin and Jens Wilkens on health financing, Martina Pellny on primary care, Galina Perfilieva on human resources for health and Nina Sautenkova on pharmaceutical policies;
- Fatima Ludin provided administrative support.

Elke Jakubowski and Albena Arnaudova

ARMENIA

Ð²Ú²êî²ÜÆ Ð²Üð²äºîàôÂÚàôÜ

AREA (km²)

29 800

About the same as Belgium

EU27: 4.3 million, EU15: 3.2 million, CIS8: 4.2 million

POPULATION (2007)

3.0 million

Twice the population of Estonia, 0.6% of the EU27 population and 4% of the CIS8 population

EU27: 490 million, EU15: 387 million, CIS8: 75 million

EU27: current members of the EU. EU15: members of the EU

THE PEOPLE	Armenian 98%, Yezidi (Kurdish) 1.5%, Russian 0.5%
LANGUAGE	Armenian 98%, Yezidi (Kurdish) 1.5%, Russian 0.5%
FORM OF GOVERNMENT	Republic
RELIGIONS	Armenian Apostolic Church 95%, other Christian 0.5%, Yezidi 1.5%, other 3.0%
INDEPENDENCE	1991
GDP PER CAPITA (2008)	US$ 3990 11% of the EU27 average and 112% of the CIS8 average ***EU27: US$ 36 000, EU15: US$ 51 000, CIS8: US$ 3570*** US$ 6370 in purchasing power parity ***EU27: US$ 30 275, EU15: 38 600, CIS8: US$ 5950***
REGIONS	11 oblasts
CURRENCY	Dram 1 Dram = US$ 0.00268 US$ 1 = 372 Dram (2009)
HUMAN DEVELOPMENT INDEX (2008)	0.775
UNEMPLOYMENT RATE (2008)	7.1% ***EU27: 8.5%, EU15: 6.3%, CIS8: 6.5%***
MEMBER OF	IMF, OSCE, United Nations, WHO, World Bank, WTO (observer)

before 1 May 2004. CIS8: the 8 countries covered in this book. *Sources:* 1–5, 27.

HEALTH

²èàÔæàôÂÚàôÜ

THE 10 HEALTH QUESTIONS

What are the demographic essentials for Armenians?

POPULATION PROFILE (2005)

Sex ratio 0.89 males per female

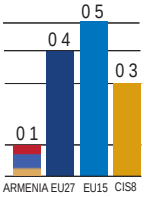
Urban 64% *EU27: 74%, EU15: 77%, CIS8: 64%*

Age structure 0–14 years 21%
EU27: 16%, EU15: 16%, CIS8: 29%

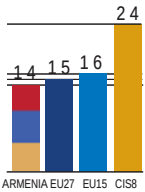
≥65 years 11%
EU27: 17%, EU15: 17%, CIS8: 7%

Dependency ratio 51% *EU27: 49%, EU15: 50%, CIS8: 58%*

POPULATION DYNAMICS (2006)



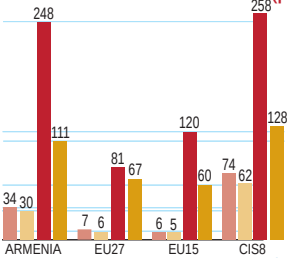
Annual growth rate (%)



Fertility rate (children born per woman)

Birth rate (live births per 1000 population)

PROBABILITY OF DYING (per 100 000 population, 2004)



0–4 years old, males

0–4 years old, females

15–60 years old, males

15–60 years old, females

EU27: current members of the EU. EU15: members of the EU

LIFE EXPECTANCY AT BIRTH (years)

Total population	68	*EU27: 78, EU15: 79, CIS8: 68*
Males	65	*EU27: 75, EU15: 76, CIS8: 64*
Females	72	*EU27: 81, EU15: 82, CIS8: 72*

HEALTHY LIFE EXPECTANCY (2002)

	Healthy life expectancy (years)					Total life expectancy lost (%)	
	At birth			At age 60 years			
	Total	Males	Females	Males	Females	Males	Females
Armenia	61	59	63	12	13	11	14
EU27	69	67	71	15	18	9	11
EU15	71	69	73	15	18	9	11
CIS8	58	56	60	10	13	12	14

Points to remember *demographic trends*

- The population is declining due to the consequences of the devastating earthquake in 1988 and massive emigration of up to 1 million people since independence.
- A large Armenian diaspora of about 5 million people lives in other CIS countries, the United States, France and the Middle East.
- In the 10 years following independence, the birth and fertility rates fell by about 60%.

Sources: 1–8.

What do the Armenians suffer from?

CARDIOVASCULAR DISEASES

- The leading cause of death: 53% of the total deaths (2003).
- Within this group, the major killers are as follows (2003).
  - Diseases of the circulatory system: 627 deaths per 100 000. ***EU27: 273, EU15: 214, CIS8: 684***

before 1 May 2004. CIS8: the 8 countries covered in this book.

– Ischaemic heart diseases: 387 deaths per 100 000, causing 13% of the disease burden.

– Cerebrovascular diseases: 277 deaths per 100 000, causing 7% of the disease burden and 16% of all deaths.
– High blood pressure causes an estimated 8% of deaths among men and 9% of deaths among women.

CANCER (MALIGNANT NEOPLASMS)

- Cancer causes 159 deaths per 100 000 population (2003). ***EU27: 180, EU15: 170, CIS8: 110***
- There are 222 new cases of cancer per 100 000 per year (2006). ***EU27: 460, EU15: 475, CIS8: 110***
- New cases per 100 000 per year (2003): cervical cancer: 7 (***CIS8: 10***); breast cancer: 30 (***CIS8: 16***); and lung cancer (2006): 38 (***EU27: 54, EU15: 54, CIS8: 13***).

RESPIRATORY DISEASES

- Chronic obstructive pulmonary disease causes 3% of all deaths and 2% of the disease burden.

DIABETES

- Prevalence of diabetes (2006): 1.2%.
- Diabetes causes 4% of the disease burden and 61 deaths per 100 000 (2002). ***EU27: 14, EU15: 14, CIS8: 25***

MENTAL HEALTH

Per 100 000 population per year (2006):

- New cases of mental disorders: 78. ***CIS8: 100***
- Suicide or death from self-inflicted injuries: 2. ***EU27: 11, EU15: 10, CIS8: 8***
- New cases of alcoholic psychosis: 2. ***CIS8: 43***

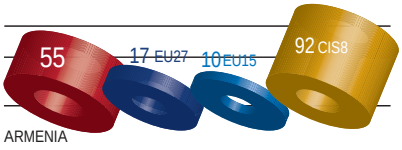
EU27: current members of the EU. EU15: members of the EU

UNINTENTIONAL INJURIES

- They cause 36 deaths per 100 000 per year (2003). ***EU27: 42, EU15: 36, CIS8: 61***
- Injuries from road crashes are responsible for 6 deaths per 100 000 per year (2003). ***EU27: 9, EU15: 8, CIS8: 9***

INFECTIOUS AND PARASITIC DISEASES

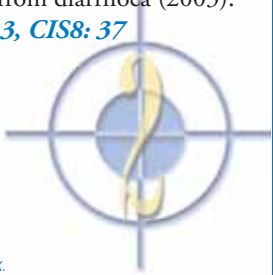
- Infectious diseases cause less than 1% of all deaths (2003).
- Tuberculosis is a substantial problem: 55 new cases per 100 000 per year (2006).



- New cases of HIV infection (2006): 2 per 100 000. ***EU27: 6, EU15: 6, CIS8: 5***
- Sexually transmitted infections (per 100 000 per year, 2007):
  - New cases of syphilis: 5. ***EU27: 4, EU15 (2004): 3, CIS8 (last available year): 14***
  - New cases of gonococcal infection: 24. ***EU27: 8, EU15 (2006): 9, CIS8 (last available year): 21***

CHILD AND ADOLESCENT HEALTH

- Infant mortality has declined more quickly than in other countries in this region but is still high, with 12 deaths per 1000 live births (2003). ***EU27: 5, EU15: 4, CIS8: 19***
- DTP3 immunization coverage (2006): 90%. ***EU27: 95%, EU15: 95%, CIS8: 94%***
- Death rate of children 0–5 years old from diarrhoea (2003): 9 per 100 000. ***EU27: 0.6, EU15: 0.3, CIS8: 37***



before 1 May 2004. CIS8: the 8 countries covered in this book.

TOP 10 CAUSES OF DEATH IN ARMENIA (2003)

Cause	Total deaths (%)
1. Ischaemic heart disease	33
2. Cerebrovascular disease	16
3. Diabetes mellitus	6
4. Tracheal, bronchial and lung cancer	4
5. Chronic obstructive pulmonary disease	3
6. Inflammatory heart diseases	2
7. Hypertensive heart disease	2
8. Breast cancer	2
9. Stomach cancer	2
10. Cirrhosis of the liver	2

DISEASE BURDEN IN ARMENIA, CIS8 AND THE EU (2002)

Cause	Share of disease burden (%)			
	Armenia	CIS8	EU27	EU15
Cardiovascular diseases	18	22	14	12
Neuropsychiatric disorders	17	16	30	32
Unintentional injuries	7	8	8	7
Infectious and parasitic diseases	5	7	2	2
Perinatal conditions	7	5	NA	NA
Digestive diseases	4	6	5	4
Musculoskeletal diseases	3	NA	4	NA
Congenital abnormalities	5	NA	NA	NA
Cancer (malignant neoplasms)	10	6	13	13
Sensory organ disorders	6	4	4	4
Total noncommunicable diseases	87	82	87	84
Total communicable diseases	5	7	2	2
Total injuries	8	11	11	10

NA: not available.

EU27: current members of the EU. EU15: members of the EU

Points to remember

health status

- Armenia's mortality patterns are more similar to the EU countries than to some other CIS countries except for mortality from respiratory and cardiovascular diseases.
- Mortality due to external causes is lower than in some other CIS countries.
- Infant mortality is substantially higher in rural areas than in urban areas.
- Tuberculosis infections have quadrupled since independence.
- The official HIV infection rate in Armenia is still considered low compared with that in neighbouring countries, although the number of people living with HIV is probably underreported.

Sources: 1, 5, 9, 10.

Where do the risks lie?

SMOKING

- Adult smoking prevalence: 27% of the population are regular smokers (2006).

EU27: 28, EU15: 28, CIS8: 22

- Armenia has one of the highest proportions of smokers in the WHO European Region among men: 57% are regular smokers (3% of women) (2006).
- Smoking accounts for 12% of the disease burden and 653 deaths per 100 000 (2003).

ALCOHOL CONSUMPTION

- Total alcohol consumption (2003): 1.1 litres per person per year. ***EU27: 9.0, EU15: 9.4, CIS8: 1.5***
- Alcohol is a major risk factor among men, causing 5% of the overall disease burden and 8% among men (2003).

before 1 May 2004. CIS8: the 8 countries covered in this book.

- Alcohol-related causes (2003): 59 deaths per 100 000. ***EU27: 67, EU15: 58, CIS8: 124***

ILLEGAL DRUG USE

- Cannabis is the most frequently used illicit drug: 3% of the population 15–65 years old (2006).
- Prevalence of opiate abuse (2005): 0.3% (15–65 years old).
- First admissions to drug treatment centres (2006): 3 per 100 000 per year. ***EU27: 48, CIS8: 40***

OBESITY

- Prevalence (2006): 12% of men and nearly 20% of women.
- High body mass index is associated with 18% of all deaths and 10% of the disease burden (2002).
- Physical inactivity is associated with 9% of deaths and 4% of the disease burden (2002).

FOODBORNE INFECTIONS

- Salmonellosis (2006): 9 cases reported per 100 000.

OCCUPATIONAL HEALTH

- Injured in work-related accidents (2006): 3 per 100 000 per year. ***EU27 (2006): 905, EU15 (2005): 1054, CIS8 (last available): 9***
- Deaths in work-related accidents in 2005: 0.5 per 100 000 per year. ***EU27 (2006): 1.2, EU15 (2005): 1.1, CIS8 (last available): 1.4***

AIR QUALITY

- SO_2 emissions (1999): 0.26 kg per person. ***EU27: 21, EU15: 14, CIS8: 7***

Sources: 1, 6, 10, 11.

EU27: current members of the EU. EU15: members of the EU

Who is who in the Armenian public health sector?

PUBLIC ADMINISTRATION

Ministry of Health

INSTITUTIONS UNDER THE HEALTH MINISTRY

State Hygiene and Sanitary-Epidemiological Inspectorate

Drug and Technology Scientific Expertise Centre

National Institute of Health

State Health Agency, with a central office in Yerevan and 10 regional branches

PARLIAMENT

Standing Committee on Health

PROFESSIONAL ASSOCIATIONS

More than 40 professional associations, including the Armenian Medical Association, the Armenian Dental Association and the Armenian Nurses' Association

Armenian Public Health Alliance

ACADEMIC INSTITUTIONS

Yerevan State Medical University

NONGOVERNMENTAL ORGANIZATIONS

Armenian Red Cross Society

Oxfam

Adventist Development and Relief Agency

Médecins Sans Frontières

Save the Children

Open Society Institute

before 1 May 2004. CIS8: the 8 countries covered in this book.

REGIONAL ADMINISTRATION

Eleven regional governments and their health departments

How are services provided?

PUBLIC HEALTH

The State Hygiene and Sanitary-Epidemiological Inspectorate provides public health services and consists of a head office in the Ministry of Health, 7 operational offices in Yerevan and 10 regional offices. In addition, 14 independent laboratories provide testing, expertise and public protection and a number of mobile laboratories. Core public health programmes include epidemiological surveillance, a programme to prevent HIV transmission and an immunization programme (managed by the Ministry of Health and implemented in primary care). Health education has not yet been developed, but activities such as information and awareness campaigns, organized by government and nongovernmental organizations, are becoming more common.

PRIMARY CARE

Primary care services differ in rural and urban areas. The country has inherited the system from before independence, when primary care was underdeveloped and investment was focused on secondary and specialized inpatient care rather than outpatient services. However, there has been a substantial shift towards primary care since independence. The ownership and management of primary care facilities has been devolved from the central to local governments in recent years.

EU27: current members of the EU. EU15: members of the EU

Feldsher-midwifery posts are the first point of consultation for people in rural areas, providing very basic curative antenatal and postnatal care and immunization. They also give health advice and referrals and are supervised by nearby polyclinics and ambulatory facilities. To access more advanced primary care services, people have to travel to villages and towns with ambulatories and polyclinics. Polyclinics provide most primary care in cities. People are free to choose their primary care provider.

Specialization in primary care was introduced in 1993. Family medicine, in which health professionals are trained and retrained to provide a more holistic approach to care for all members of the family, is becoming a more common feature of the primary care system.

SECONDARY AND TERTIARY CARE

Numerous facilities provide secondary care, including freestanding hospitals at the district and regional levels, hospitals with associated polyclinics, health centres primarily designed for outpatient care with about 20 beds for inpatient care, maternity homes and specialized dispensaries.

Highly specialized tertiary services are mainly concentrated in Yerevan in institutions equipped with sophisticated equipment.

PUBLIC/PRIVATE MIX

Private providers have gradually entered Armenia's health care system because of changes in the legislative framework and an extensive sale of government facilities to entrepreneurial individuals, groups and companies. More than 200 formerly state-owned health facilities, mostly pharmacies and dental units, have been privatized. As a result, almost all pharmacies and most dental services and medical equipment support are now private. About six hospitals (9% of all hospital beds) in Yerevan providing secondary and tertiary care have also been privatized.

before 1 May 2004. CIS8: the 8 countries covered in this book.

Physicians in private practice are still relatively rare and mostly confined to some specialists in gynaecology and obstetrics and psychiatrists.

Points to remember *service provision*

- Feldsher-midwifery posts have deteriorated since independence, although they are still an important point of access to care for people living in remote areas.
- During the past decade, an imbalance of geographical access to services developed between rural areas and urban areas.
- Utilization of primary care services has traditionally been low. Health services utilization has further dropped since independence to a level much below that of the EU, more for primary care than for hospital services.
- Access remains a concern, especially among vulnerable groups.
- Coordination between the different levels of care remains a major challenge.
- According to patient surveys, private service providers are associated with reduced access to services and concerns about quality and safety.

What resources are available?

HUMAN RESOURCES FOR HEALTH

The number of physicians has decreased since independence, mostly due to migration, and the number is comparable to those in most EU countries. The decrease is also due to reduced admission to medical school. A specific feature is the large number of specialists, a high proportion (almost 50%) of physicians working in hospitals. However, the

EU27: current members of the EU. EU15: members of the EU

number of health professionals trained and retrained as family medicine practitioners has increased in the past decade as basic and postgraduate training programmes in family care were introduced. The increased emphasis on primary care led to some unemployment among specialists. The number of nurses has decreased since independence to a level that is now substantially below the levels in the CIS and EU. In addition, most nurses are poorly trained and skilled. The number of dentists has remained nearly unchanged since independence, whereas pharmacists seem to have declined substantially. Low levels of prestige and remuneration comprise a particular problem for all health professionals.

HEALTH PROFESSIONALS (per 100 000, 2006)

Physicians	346	*EU27: 315, EU15: 332, CIS8: 315*
Dentists	39	*EU27: 62, EU15: 66, CIS8: 25*
Nurses	418	*EU27: 742, EU15: 794, CIS8: 585*
Pharmacists	5	*EU27: 72, EU15: 81, CIS8: 19*
GPs	58	

HOSPITALS (2006)

Hospitals per 100 000 inhabitants: 4
EU27: 3, EU15: 3, CIS8: 5

Hospital beds per 100 000 inhabitants: 443
EU27: 576, EU15: 564, CIS8: 559

Inpatient admissions per 100 inhabitants: 8
EU27: 18, EU15: 17, CIS8: 11

Average length of stay (days): 9
EU27: 9, EU15: 10, CIS8: 11

PHARMACEUTICALS

Six companies in Armenia manufacture pharmaceuticals domestically. Domestic production satisfies about 4–6% of the country's drug requirements.

before 1 May 2004. CIS8: the 8 countries covered in this book.

The government centrally procures drugs for the treatment of specific diseases such as tuberculosis and diabetes and distributes pharmaceuticals donated through humanitarian assistance. The rest of the pharmaceutical sector is privatized. An essential medicines list is in place, but in practice there has been difficulty in implementing the concept of essential drugs. In reality, people still need to pay most of the costs of drugs out of pocket. Some family practices have started to apply treatment guidelines for rational drug prescription, but further enforcement is needed. The government regulates the registration, production, procurement, supply and sales of pharmaceuticals and takes charge of licensing pharmaceuticals but, overall, regulation is not strong. To strengthen the regulatory framework, a new law on medicines based on WHO recommendations is being developed. The governmental Drug and Technology Scientific Expertise Centre – modelled on the United States Food and Drug Administration – is a dominant player in evaluating and registering pharmaceuticals and medical devices.

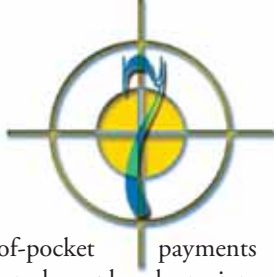
Points to remember *resources for health*

- The number of hospital beds has nearly halved since the country's independence. Bed capacity reduction through mergers and closures has been limited to rural areas, whereas cities still have excess capacity. A further decrease of capacity by 25% is anticipated by creating the hospital network, which effectively merged 44 hospitals into 10 hospital networks in 2004.
- Armenia was one of the first countries in the former USSR to provide specialist training in primary care and establish university chairs and a training centre for family medicine.
- Inappropriate drug use is linked to the lack of appropriate and affordable drugs, in both inpatient and outpatient care.

Source: 1

EU27: current members of the EU. EU15: members of the EU

Who pays for what?



Health expenditure is covered by a combination of the state budget, international donations and direct out-of-pocket payments by the population. International donations have played a major role since the earthquake in 1988; however, they comprise less than 14% of health care expenditure today. The health budget is derived from taxes collected at the national and community (*hamaynkner*) level and the social insurance fund. State funding covers 40% of health care expenditure according to WHO national health accounts. Plans are to substantially increase the public share of spending by 2015. Out-of-pocket payments comprise more than half of total health care expenditure. A few of the 20 private insurance companies offer voluntary health insurance. There are some community-based insurance initiatives supported by international nongovernmental organizations, aiming to improve access to primary care services in villages and covering 80 000 people in 2006.

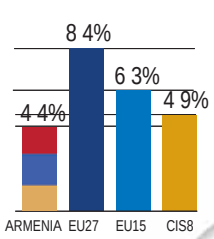
The state budget coverage of services is linked to a basic benefit package, defining the types of services that are free of user charges and specifying the population groups exempted from any official user charges, such as people with disability, children younger than seven years, other dependants and people in military service. The range of services under the basic benefit package includes inpatient care such as emergency care; intensive care; obstetric and gynaecological services; health services for certain vulnerable groups; dialysis; health care for selected conditions including tuberculosis and sexually transmitted infections; ambulatory outpatient care (such as primary care; dispensary care; and pre, peri- and postnatal care) and sanitary and epidemiological services. Nevertheless, the basic benefit package covers much less in reality than is legally provided for. Co-payment is required for selected inpatient services under the

before 1 May 2004. CIS8: the 8 countries covered in this book.

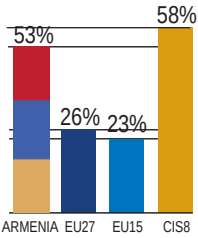
basic benefit package and for outpatient drugs in Yerevan. The level of user charges for "paid services" beyond the basic benefit package is not strictly regulated.

The State Health Agency receives budgetary resources from the Ministry of Finance and allocates budgets to primary care providers on a per capita basis by type of care and beneficiaries. Hospitals are paid monthly on a case basis per discharged inpatient and per attended outpatient.

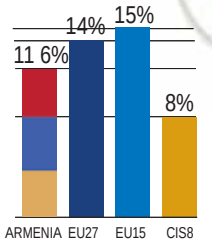
THE ECONOMIC PICTURE (2008)



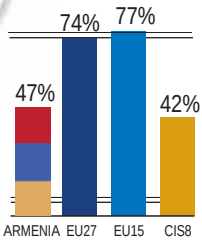
Total expenditure on health (% of GDP)



Private expenditure on health (% of total expenditure on health)



General government expenditure on health (% of total government expenditure)



General government expenditure on health (% of total health expenditure)

Private households' out-of-pocket expenditure on health 91
(% of total private health spending, 2007)

Population below poverty line 51%

EU27: current members of the EU. EU15: members of the EU

Points to remember *health financing*

- About 30% of the population had less than US$ 2 per day in income in 2006.
- State funding covers about 40% of total health care expenses, whereas formal and informal out-of-pocket payments comprise an estimated 53% of total health care expenditure.
- In 2005, pharmaceutical per capita spending (public and private) was about US$ 17 per person per year, substantially lower than spending in most EU countries.
- Drugs on the essential drug list are often not affordable to the people who need them.

Sources: 1, 2, 12–14, 28.

How have the Armenians reformed their health care system?

Health care reforms in Armenia started comparatively early following independence. Reforms have focused on devolving health services management from the national to subnational levels and privatizing health care provision; funding reforms; reducing hospital bed capacity; and strengthening primary care.

- 1993: Public health care facilities were given more independence in generating incomes parallel to state funding.
- 1993: Specialist training in primary care, university chairs and a training centre for family medicine were established.
- 1993: Private medical practice by licensed doctors was allowed.

before 1 May 2004. CIS8: the 8 countries covered in this book.

- 1993: Responsibility over managing hospital and primary care was devolved from the national level to regions and communities.
- 1993: Vulnerable population groups that can receive care free of user charges were defined.
- 1997–1998: Official user charges and a basic benefit package comprising a list of publicly funded services were introduced.
- 1998: The State Health Agency was established as a purchaser of publicly financed health services.
- 2004: A gradual increase in public funding for the health care system was decided.
- 2004: Voluntary health insurance was allowed.

Médecins Sans Frontières, the Open Society Institute, UNAIDS, UNDP, UNFPA, UNICEF, USAID, WHO and the World Bank are providing technical and financial support for health reforms in Armenia.

Points to remember

health reforms

- Armenia has increased its emphasis on prevention, family care and community participation.
- The decentralization of management of health services has posed challenges resulting from the functional disintegration of the system.
- Further improvement of funding is seen as key to reforming the system.
- Except for family care, reforms have not been reflected in changes in the educational and training schemes of people working in the health care system.

Sources: 1, 2, 12.

EU27: current members of the EU. EU15: members of the EU

What is one of the things the Armenians have learned by doing?

BETTER TRAINING AND INFRASTRUCTURE – BETTER ACCESS TO CARE

With the support of the World Bank, Armenia introduced a project on health funding and primary health care development (1998–2003) in selected primary care facilities, mostly in rural communities. The aim was to improve the training and retraining of primary care staff; to introduce quality improvement systems such as medical practice guidelines; and to improve the infrastructure and equipment. In 2003, the project intervention areas covered about 19% of the population. An evaluation noted that 10% more Armenians used the available services when experiencing health problems. Another positive result was the reduction in the number of referrals and self-referrals for specialist and hospital care. There was evidence for improved diagnostic performance in primary care. In addition, people seeking care in communities served by a retrained family physician were only half as likely to pay for consultations as those in other communities. Finally, the total out-of-pocket payments for treatment in a family medicine setting were about 10% lower than in other primary care settings.

before 1 May 2004. CIS8: the 8 countries covered in this book.

What has the Regional Office been doing in Armenia?

The WHO Country Office for Armenia opened in Yerevan in 1992. In 2006–2007, the Regional Office supported the country in:

- child and adolescent health;
- addressing the burden of noncommunicable diseases;
- strengthening health information systems;
- strengthening surveillance and control of communicable diseases; and
- improving capacity in emergency preparedness and response.

In 2008–2009, the Regional Office is providing support for:

- strengthening the health system;
- improving maternal and child health outcomes; and
- enhancing surveillance and response to communicable diseases.

EU27: current members of the EU. EU15: members of the EU

OTHER SOURCES OF INFORMATION ON ARMENIA

Global Fund to Fight AIDS, Tuberculosis and Malaria (country web site) http://www.theglobalfund.org/programs/countrysite.aspx?countryid=ARM

Government of Armenia http://www.gov.am/enversion/index.html

Ministry of Health http://www.moh.am

Open Society Institute Assistance Foundation – Armenia http://www.soros.org/about/foundations/armenia

OSCE Project Coordinator in Yerevan http://www.osce.org/yerevan

UNAIDS (country web site) http://www.unaids.org/en/CountryResponses/Countries/armenia.asp

UNICEF (country web site) http://www.unicef.org/armenia/health.html

UNDP (country web site) http://www.undp.am

WHO (country web site) http://www.who.int/countries/arm/en

World Bank Mission in Armenia http://www.worldbank.org.am

before 1 May 2004. CIS8: the 8 countries covered in this book.

AZERBAIJAN

AZƏRBAYCAN

AREA (km²)	86 600 Slightly larger than Austria ***EU27: 4.3 million, EU15: 3.2 million, CIS8: 4.2 million***
POPULATION (2007)	8.5 million About the same as Sweden, 1.7% of the EU27 population and 11% of the CIS8 ***EU27: 490 million, EU15: 387 million, CIS8: 75 million***
THE PEOPLE	Azeri 91%, Dagestani 2%, Russian 2%, Armenian 2%, other 3%

EU27: current members of the EU. EU15: members of the EU

LANGUAGE	Azerbaijani 89%, Russian 3%, Armenian 2%, other 6%
FORM OF GOVERNMENT	Republic
RELIGIONS	Muslim 93%, Russian Orthodox 2.5%, Armenian Orthodox 2%, other 2.5%
INDEPENDENCE	1991
GDP PER CAPITA (2008)	US$ 4720 13% of the EU27 average and 132% of the CIS8 average ***EU27: US$ 36 000, EU15: US$ 51 000, CIS8: US$ 3570*** US$ 11310 in purchasing power parity ***EU27: US$ 30 275, EU15: 38 600, CIS8: US$ 5950***
REGIONS	66 rayons (districts), of which 7 are in the autonomous Republic of Nakhichevan; 11 cities (more than 50 000 population)
CURRENCY	**New** Manat 1 New Manat = US$ 1.25 (2009) US$ 1 = 0.803 New Manat
HUMAN DEVELOPMENT INDEX (2008)	0.746
UNEMPLOYMENT RATE (2008)	0.8% ***EU27: 8.5%, EU15: 6.3%, CIS8: 6.5%***
MEMBER OF	IMF, OSCE, United Nations, WHO, World Bank, WTO (observer)

before 1 May 2004. CIS8: the 8 countries covered in this book. *Sources:* 1–5, 27.

HEALTH
SƏHIYYƏ

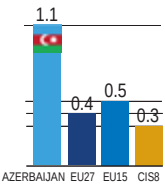
THE 10 HEALTH QUESTIONS

What are the demographic essentials for Azerbaijanis?

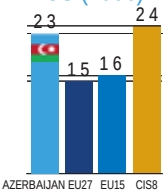
POPULATION PROFILE (2005)

Sex ratio	0.97 males per female	
Urban	51%	*EU27: 74%, EU15: 77%, CIS8: 64%*
Age structure	0–14 years 25%	*EU27: 16%, EU15: 16%, CIS8: 29%*
	≥65 years 7%	*EU27: 17%, EU15: 17%, CIS8: 7%*
Dependency ratio	51%	*EU27: 49%, EU15: 50%, CIS8: 58%*

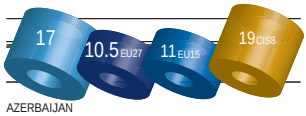
POPULATION DYNAMICS (2006)



Annual growth rate (%)

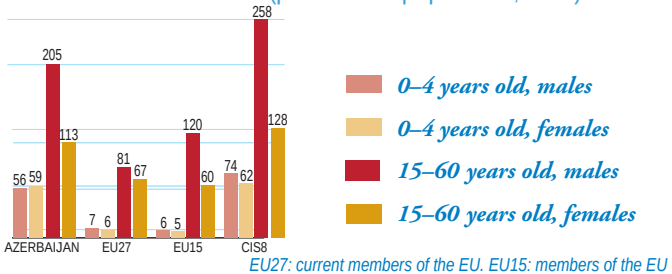


Fertility rate (children born per woman)



Birth rate (live births per 1000 population)

PROBABILITY OF DYING (per 100 000 population, 2004)



EU27: current members of the EU. EU15: members of the EU

LIFE EXPECTANCY AT BIRTH (years)

Total population	65	(72 years for 2004 in the WHO European Health for All database)
		EU27: 78, EU15: 79, CIS8: 68
Males	63	*EU27: 75, EU15: 76, CIS8: 64*
Females	68	*EU27: 81, EU15: 82, CIS8: 72*

HEALTHY LIFE EXPECTANCY (2002)

	Healthy life expectancy (years)					Total life expectancy lost (%)	
	At birth			At age 60 years			
	Total	Males	Females	Males	Females	Males	Females
Azerbaijan	57	56	59	11	12	11	15
EU27	69	67	71	15	18	9	11
EU15	71	69	73	15	18	9	11
CIS8	58	56	60	10	13	12	14

Points to remember *demographic trends*

- Life expectancy dropped dramatically after independence but has been increasing in recent years.
- During the conflict over Nagorno-Karabakh, there were about 1 million refugees and internally displaced people in Azerbaijan.
- Refugees and internally displaced people comprise about 13% of the population today.
- Azerbaijan has a very young population.
- The birth and fertility rates have dropped in the past years but are still high compared with EU countries.

Sources: 1, 2, 6, 7, 15.

What do the Azerbaijanis suffer from?

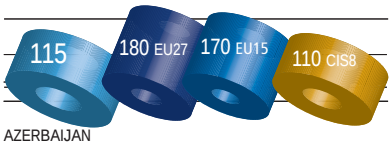
CARDIOVASCULAR DISEASES (2004)

- The leading cause of death: 47% of the total deaths.
- Within this group, the major killers are as follows.

before 1 May 2004. CIS8: the 8 countries covered in this book.

– Diseases of the circulatory system: 634 deaths per 100 000. ***EU27: 273, EU15: 214, CIS8: 684***
– Ischaemic heart diseases: 273 deaths per 100 000, causing 12% of the disease burden.
EU27: 103, EU15: 82, CIS8: 350
– Cerebrovascular diseases: 123 deaths per 100 000, causing 4% of the disease burden and 34% of all deaths.
– High blood pressure causes an estimated 6% of deaths among men and 7% of deaths among women.

CANCER (MALIGNANT NEOPLASMS) (2004)



- Cancer causes 115 deaths per 100 000 population.
- There are 80 new cases of cancer per 100 000 per year.
EU27: 460, EU15: 475, CIS8: 110
- New cases per 100 000 per year: cervical cancer: 3.7 (***CIS8: 10***); breast cancer: 14 (***CIS8: 16***); and lung cancer (2006): 10 (***EU27: 54, EU15: 54, CIS8: 13***).

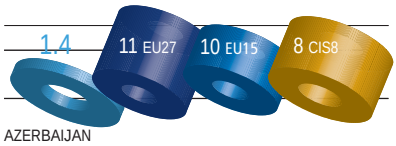
DIABETES

- The prevalence of diabetes is 0.8% (2004).
- Diabetes causes 2% of the disease burden (2002) and 26 deaths per 100 000 (5% of all deaths) (2004).
EU27: 14, EU15: 14, CIS8: 25

MENTAL HEALTH

Per 100 000 population per year (2006):

- New cases of mental disorders: 71. ***CIS8: 100***
- Suicide or death from self-inflicted injuries: 1.4.
- New cases of psychosis: 0.2. ***CIS8: 43***



EU27: current members of the EU. EU15: members of the EU

UNINTENTIONAL INJURIES

- They cause 26 deaths per 100 000 per year (2004). ***EU27: 42, EU15: 36, CIS8: 61***
- Injuries from road crashes were responsible for 6 deaths per 100 000 in 2000. ***EU27: 9, EU15: 8, CIS8: 9***
- In 2007, 78% of deaths from road crashes were among males and 22% among females.

INFECTIOUS AND PARASITIC DISEASES

- Infectious diseases cause less than 2% of all deaths (2003).
- Tuberculosis infection is a substantial problem: 67 new cases per 100 000 per year (2006). ***EU27: 17, EU15: 10, CIS8: 92***
- New cases of HIV infection (2006): 3 per 100 000. ***EU27: 6, EU15: 6, CIS8: 5***
- Sexually transmitted infections (2007):
  - New cases of syphilis: 5 per 100 000. ***EU27 (2007): 4, EU15 (2004): 3, CIS8 (last available year): 14***
  - New cases of gonococcal infection: 20 per 100 000. ***EU27 (2007): 8, EU15 (2006): 9, CIS8 (last available year): 21***

CHILD AND ADOLESCENT HEALTH

- Infant mortality is high compared with EU levels: 12 deaths per 1000 live births (2007).

- DTP3 immunization coverage (2006): 95%. ***EU27: 95%, EU15: 95%, CIS8: 94%***
- The death rate of children 0–5 years old from diarrhoea is extremely high: 22 per 100 000 (2004). ***EU27: 0.6, EU15: 0.3, CIS8: 37***

before 1 May 2004. CIS8: the 8 countries covered in this book.

TOP 10 CAUSES OF DEATH IN AZERBAIJAN (2003)

Cause	Total deaths (%)
1. Ischaemic heart disease	37
2. Cerebrovascular disease	34
3. Tracheal, bronchial and lung cancer	8
4. Inflammatory heart diseases	8
5. Diabetes mellitus	5
6. Chronic obstructive pulmonary disease	4
7. Colon and rectum cancer	4
8. Breast cancer	3
9. Cirrhosis of the liver	3
10. Genitourinary system diseases	3

DISEASE BURDEN IN AZERBAIJAN, CIS8 AND THE EU (2002)

Cause	Share of disease burden (%)			
	A erbaijan	CIS8	EU27	EU15
Cardiovascular diseases	20	22	14	12
Neuropsychiatric disorders	16	16	30	32
Unintentional injuries	4	8	8	7
Infectious and parasitic diseases	8	7	2	2
Perinatal conditions	5	5	NA	NA
Digestive diseases	5	6	5	4
Respiratory infections	11	NA	4	NA
Respiratory diseases	5	NA	NA	NA
Cancer (malignant neoplasms)	7	6	13	13
Sensory organ disorders	5	4	4	4
Total noncommunicable diseases	79	82	87	84
Total communicable diseases	8	7	2	2
Total injuries	13	11	11	10

NA: not available.

EU27: current members of the EU. EU15: members of the EU

Points to remember

health status

- Azerbaijan faces a double burden of diseases related to poverty such as infectious diseases and those related to industrialization such as cardiovascular diseases.
- The number of deaths among children has been halved in the past two decades.
- Chronic liver diseases and cirrhosis are prominent causes of untimely early deaths among men.
- Cardiovascular diseases represent the biggest population health problem.
- Deaths related to diabetes have tripled in the past two decades and are among the highest in the WHO European Region.
- Deaths due to external causes and diseases of the respiratory system have declined notably since independence.

Sources: 1, 2, 5, 8, 9, 16.

Where do the risks lie?

SMOKING

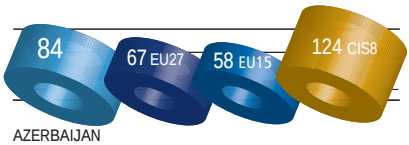
- The adult smoking prevalence was higher than the CIS8 average in 1997, with 27% of the population regular smokers, also reflecting the effects of targeted marketing by tobacco companies.
  EU27: 28%, EU15: 28%, CIS8: 22%
- Smoking was associated with at least 12% of the disease burden and 639 deaths per 100 000 in 2000.
  EU27: 240, EU15: 200, CIS8: 622

ALCOHOL CONSUMPTION

- Official statistics report total alcohol consumption at 3.1 litres per capita (2003). ***EU27: 9.0, EU15: 9.4, CIS8: 1.5***
- Alcohol is a major risk factor among men, causing 5% of the overall disease burden and 6% among men (2003).

before 1 May 2004. CIS8: the 8 countries covered in this book.

- Alcohol-related causes (2000): 84 deaths per 100 000.



ILLE AL RU USE

- Cannabis is the most frequently used illicit drug: 3.5% of the population 15–65 years old (2004).
- Prevalence of opiate abuse (2000): 0.2% (15–65 years old).
- First admissions to drug treatment centres (2006): 5 per 100 000 per year. ***EU27: 48, CIS8: 40***
- Azerbaijan is a transit country for opiates bound for the Russian Federation.

BESI

- Prevalence (2006): 15% of men and 25% of women.
- High body mass index is associated with 16% of all deaths and 8% of the disease burden (2002).
- Physical inactivity is associated with 8% of deaths and 3% of the disease burden (2002).

B RNE IN EC I NS

- Salmonellosis: 5 cases reported per 100 000 (2003). ***EU27: 35, EU15: 27, CIS8: 7***

CCU A I NAL EAL

- Injured in work-related accidents (2006): 3 per 100 000 per year. ***EU27 (2006): 905, EU15 (2005): 1054, CIS8 (last available): 9***
- Deaths in work-related accidents (2006): 1.0 per 100 000 per year. ***EU27 (2006): 1.2, EU15 (2005): 1.1, CIS8 (last available): 1.4***

AIR UALI

- SO_2 emissions were very high in 1997: 22.5 kg per capita. ***EU27: 21, EU15: 14, CIS8: 7***

Sources: 1, 10, 11, 17.

EU27: current members of the EU. EU15: members of the EU

Who is who in the Azerbaijani public health sector?

PUBLIC ADMINISTRATION

Department of Science, Culture, National Education and Social Problems of the Cabinet of Ministers, which influences health policy development and fiscal decisions

Ministry of Health

INSTITUTIONS UNDER THE HEALTH MINISTRY

State hospitals

Specialized research institutes for health

Sanitary-epidemiological surveillance system, including the Republican Centre for Hygiene and Epidemiology, the Republican Anti-plague Station and the Republican Sanitary-Quarantine Service

PARLIAMENT

Unicameral National Assembly (Milli Mejlis)

Social Commission

ACADEMIC MEDICAL INSTITUTIONS

Azerbaijan Medical University and the Postgraduate Medical Training Institute

NONGOVERNMENTAL ORGANIZATIONS

Nongovernmental and multilateral organizations play a role in providing health care in areas with large numbers of internally displaced people and refugees and provide input into policy development. This role has decreased in recent years.

before 1 May 2004. CIS8: the 8 countries covered in this book.

LOCAL ADMINISTRATION

There is no regional (or oblast) tier. Health care is administered at the district (rayon) and city levels.

How are services provided?

The country has inherited an extensive system of health care facilities from the Soviet era, ranging from small feldsher-led health posts, ambulatories and polyclinics, specialized dispensaries and smaller rural hospitals to large hospitals in cities. Care provision differs in rural and urban areas and investment has been focused on secondary and specialized inpatient care rather than outpatient services.

PUBLIC HEALTH

Azerbaijan has about 80 hygienic stations in the country, roughly one per district, which are supervised by the Ministry of Health. They maintain laboratories to detect and analyse infectious agents and environmental hazards and are involved in monitoring and organizing vaccination services. Many of these stations have outdated and poorly maintained equipment. Health promotion and family planning are the responsibility of the Ministry of Health but can be improved only by increased awareness and training of professionals.

PRIMARY CARE

People in rural areas consult feldsher posts as the first point of health care contact. Feldsher posts provide very basic treatment and immunization, and many people are referred to ambulatory facilities and rural hospitals. Central district or municipal hospitals and polyclinics provide primary care services in rural districts and

EU27: current members of the EU. EU15: members of the EU

cities. People can freely choose the provider from which they seek services. Family medicine has not yet been developed further. Specialists still provide many primary care services.

SECONDARY AND TERTIARY CARE

Specialized ambulatory services provide secondary care: for instance, in polyclinics; rural ambulatories; dispensaries for the treatment of specific diseases such as tuberculosis, skin diseases and sexually transmitted diseases; and hospitals providing basic secondary inpatient care. Tertiary care providers are organized at the national level and are mainly located in Baku.

PUBLIC/PRIVATE MIX

A small proportion of the hospitals and health posts are privately owned; the state owns most facilities. In 2003, the government privatized some 350 facilities, mostly small dental practices. Since 2006, stricter regulation has resulted in the closure of some of these private facilities. Currently, several large private health care companies are operating in the country, offering a wide range of private inpatient and outpatient diagnostic and treatment services. Most of the pharmacies have become private.

Points to remember *service provision*

- The key problems in primary care are related to the quality and continuity of care; although the overall number of facilities is high, people living in the mountains have serious difficulty in accessing services.
- Azerbaijan has many hospital beds and long lengths of stay. The bed occupancy rates in hospitals have fallen dramatically since independence, to below 20% in some cases.
- The hospital admission rate remains comparatively low, with about 6 admissions per 100 population in 2006 versus 20 in the CIS (2006) and 18 in the EU (2005).
- Continuity of care remains a key problem, as people access numerous services directly at the specialist level and primary care is underdeveloped.

before 1 May 2004. CIS8: the 8 countries covered in this book.

What resources are available?

HUMAN RESOURCES FOR HEALTH

The Ministry of Health is the main employer for health professionals. The number of physicians has remained relatively constant, but nurses and support staff are declining. Most health professionals are concentrated in cities, and insufficient numbers of health professionals work in small villages and the mountains. Azerbaijan is one of the few countries in the WHO European Region that has not yet established family medicine as a clinical specialty. There are many fewer general practitioners than specialists. The incomes of state health professionals are still low compared with other economic sectors in Azerbaijan.

HEALTH PROFESSIONALS (per 100 000, 2006)

Physicians	363	*EU27: 315,*	*EU15: 332,*	*CIS8: 315*
Dentists	29	*EU27: 62,*	*EU15: 66,*	*CIS8: 25*
Nurses	726	*EU27: 742,*	*EU15: 794,*	*CIS8: 585*
Pharmacists	13	*EU27: 72,*	*EU15: 81,*	*CIS8: 19*
GPs	18	*EU27: 98,*	*EU15: 103,*	*CIS8: 31*

HOSPITALS (2006)

Hospitals per 100 000 inhabitants: 9
EU27: 3, EU15: 3, CIS8: 5

Hospital beds per 100 000 inhabitants: 809

Inpatient admissions per 100 inhabitants: 6
EU27: 18, EU15: 17, CIS8: 11

Average length of stay (days): 15
EU27: 9, EU15: 10, CIS8: 11

EU27: current members of the EU. EU15: members of the EU

PHARMACEUTICALS

Pharmaceutical production is private. The Ministry regulates production, import and supply, but the share of informal unregulated sales of products is high. More than half the imported drugs do not undergo customs and inspection. About 10% of the government health budget is allocated to drugs, meeting less than 10% of the demand. Thus, people mainly have to purchase drugs out of pocket.

Points to remember *resources for health*

- Many of the private care facilities have poor equipment and maintenance. More than half do not have access to safe piped water and continuous power supply.
- A regulated market for generic drugs has not yet been developed.
- In 2003, the average monthly salary of a health professional (US$ 78) was only one third the average income.

Source: 1

Who pays for what?

The main source of government funding for health care is income, value-added, excise and other taxes. General government funding covers about 30% of health care expenditure. An estimated 69% is covered through formal and informal co-payments, voluntary contributions such as by national and international organizations and, to a very limited extent, private health insurance. Voluntary health insurance covers less than 1% of the population.

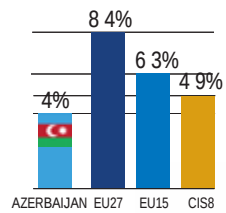
The Ministry of Health administers about 25% of public funding, mainly for the payment of health service providers at the republican level, including republican hospitals and

before 1 May 2004. CIS8: the 8 countries covered in this book.

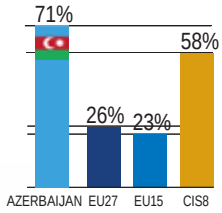
polyclinics, hygienic stations, research and the administration of the Ministry. The Ministry of Finance allocates about 70% to the district administrations and, from them, to the district health administrations. This covers health services provided at the district level: specialized hospitals, dispensaries, rural hospitals, polyclinics and primary care.

Formal user fees were introduced in 1998. Certain population groups such as children and people with certain diseases (such as tuberculosis or diabetes) and some services (such as maternal services and vaccinations) were officially exempted from co-payments. In 2008, however, a presidential decree declared that the health care services included in the basic benefit package will be provided to everyone free of user charges.

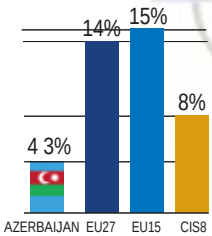
THE ECONOMIC PICTURE (2008)



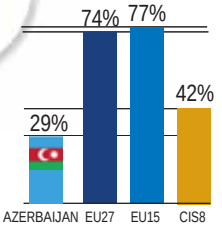
Total expenditure on health (% of GDP)



Private expenditure on health (% of total expenditure on health)



General government expenditure on health (% of total government expenditure)



General government expenditure on health (% of total health expenditure)

EU27: current members of the EU. EU15: members of the EU

Hospitals are paid based on line items, such as staff, pharmaceuticals, equipment, maintenance and infrastructure.

Private households' out-of-pocket expenditure on health 87 (% of total private health spending, 2007)

Population below poverty line 50%

Points to remember *health financing*

- The government budget for health increased from 162 million manats in 2006 to 331 million manats in 2008.
- The annual government per capita spending for health care is US$ 77 (2006).
- Azerbaijan allocates less than 5 % of total government spending to health versus a CIS average of about 8%.
- Informal user charges for health services, drugs and supplies remain common despite the introduction of official charges.
- Imbalances in the money allocated by the Ministry of Finance between districts persist, based on the use of historical norms such as the number and size of hospitals in a location or district rather than people's needs and service utilization.

Sources: 1, 2, 11, 28.

How have the Azerbaijanis reformed their health care system?

Health care reforms in Azerbaijan were initiated in 1993, and numerous laws have been adopted either through the Mejlis or via presidential decree, but not all legislation has been implemented. The legal changes implemented include the following.

before 1 May 2004. CIS8: the 8 countries covered in this book.

- 1994: Official user charges for health services provided in specialized institutions were introduced.
- 1997: The right of free choice of physician was introduced. Private pharmacies and private medical practice were legalized.
- 1998: Informal user charges were formalized. A state commission to advise on health reforms was established by presidential decree.
- 2001–2004: A health reform project devoted to primary care was implemented in five pilot districts, funded by the World Bank.
- 2003: The monthly salaries of state-funded employees in the health sector were increased by 50%.
- 2006: The Ministry of Health, with support from the government and international organizations (UNICEF, the USAID, WHO and the World Bank) launched the second Health Sector Reform Project (2006–2012) under a World Bank loan agreement in 2006. The Project provides an opportunity to pilot new principles in organizing and financing health services in five districts.
- 2008: A revised concept for health care reform has been prepared for approval outlining reform directions for the different parts of the health system. In January, the President approved a concept for reforming the health funding system and introducing mandatory health insurance in Azerbaijan. It involves implementing a purchaser–provider split, reducing fragmentation in funding and piloting new provider payment schemes. A respective action plan was approved on 11 August 2008. In the end of January, the Minister of Health signed a National Reproductive Health Strategy 2005–2015, including a detailed plan of actions.

EU27: current members of the EU. EU15: members of the EU

Points to remember

health reforms

- Although health reforms have focused on smaller changes in the initial years of independence, the pace and intensity of reforms in recent years has increased substantially.
- Most donors support reforms in primary care; UNICEF, USAID, WHO and the World Bank are among the most active organizations.
- The largest internationally supported project in the health care sector is the Health Sector Reform Project of the Ministry of Health (2006–2012). The total project amount is US$ 78.25 million, including a World Bank loan of US$ 50 million and the Government's share of US$ 28.25 million.

Sources: 1, 2, 12.

What is one of the things the Azerbaijanis have learned by doing?

IMPROVED ACCESS TO DRUGS – SOLIDARITY ITH POOR PEOPLE

One of the ongoing challenges has been to assure access to affordable high-quality drugs. To address the difficulties, UNICEF and some nongovernmental organizations piloted community revolving drug funds in selected districts of Azerbaijan among populations of refugees and internally displaced people. The community was thereby asked to establish lists of households in need that had difficulty in affording drugs, and these were exempted from paying for drugs. Instead, community funds, derived though cross-subsidies and community contributions, would cover such expenses. The experiment showed that these community funds are feasible and sustainable.

before 1 May 2004. CIS8: the 8 countries covered in this book.

What has the Regional Office been doing in Azerbaijan?

The WHO Country Office in Azerbaijan opened in Baku in 1992. In 2006–2007, the Regional Office supported the country in:

- primary health care;
- health funding reform;
- pharmaceutical policy;
- human resources for health;
- public health and emergency services; and
- health information and communicable diseases surveillance.

In 2008–2009, the Regional Office is providing support for:

- supporting health sector reforms and stewardship capacity;
- scaling up progress towards the Millennium Development Goals by improving maternal and child health care and immunization;
- strengthening communicable disease surveillance and preparedness for emergencies; and
- preventing and controlling noncommunicable diseases.

EU27: current members of the EU. EU15: members of the EU

OTHER SOURCES OF INFORMATION ON AZERBAIJAN

Global Fund to Fight AIDS, Tuberculosis and Malaria (country web site) http://www.theglobalfund.org/programs/countrysite aspx?countryid=AZE

Ministry of Health http://www.mednet.az

Open Society Institute Assistance Foundation – Azerbaijan http://www.soros.org/about/foundations/azerbaijan

OSCE in Baku http://www.osce.org/baku

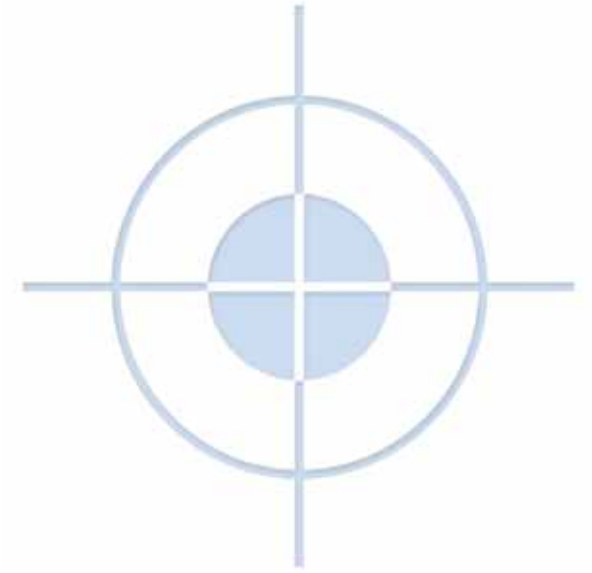
UNAIDS (country web site) http://www.unaids.org/en/CountryResponses/Countries/azerbaijan.asp

UNICEF (country web site) http://www.unicef.org/infobycountry/azerbaijan.html

UNDP (country web site) http://www.un-az.org/undp

WHO (country web site) http://www.who.int/countries/aze/en

World Bank's Mission in Azerbaijan http://www.worldbank.org.az



before 1 May 2004. CIS8: the 8 countries covered in this book.

GEORGIA

saqa r Tve l o

AREA (km²)	69 700 Half the size of Greece ***EU27: 4.3 million, EU15: 3.2 million, CIS8: 4.2 million***
POPULATION (2007)	4.4 million A little lower than Denmark, 1% of the EU27 population and 6% of the CIS8 population ***EU27: 490 million, EU15: 387 million, CIS8: 75 million***
THE PEOPLE	Georgian 84%, Azerbaijani 6.5%, Armenian 6%, Russian 1.5%, other 2.5%

EU27: current members of the EU. EU15: members of the EU

LANGUAGE	The official languages of Georgia are Georgian and Abkhaz within the autonomous region of Abkhazia.
FORM OF GOVERNMENT	Presidential Republic
RELIGIONS	Georgian Orthodox Christian 84%, Muslim 10%, Armenian Apostolic Church 4%, Catholic 1%
INDEPENDENCE	1991
GDP PER CAPITA (2008)	US$ 2730 7.6% of the EU27 average and 76% of the CIS8 average ***EU27: US$ 36 000, EU15: US$ 51 000, CIS8: US$ 3570*** US$ 4930 in purchasing power parity ***EU27: US$ 30 275, EU15: 38 600, CIS8: US$ 5950***
REGIONS	Nine regions, two autonomous remains republics (Abkhazia and Ajara)
CURRENCY	Lari 1 Lari = US$ 0.6 (in 2009) US$ 1 = 1.675 Lari
HUMAN DEVELOPMENT INDEX (2008)	0.754
UNEMPLOYMENT RATE (2008)	13,6% ***EU27: 8.5%, EU15: 6.3%, CIS8: 6.5%***
MEMBER OF	IMF, OSCE, United Nations, WHO, World Bank, WTO

before 1 May 2004. CIS8: the 8 countries covered in this book. Sources: 1–5, 27.

HEALTH
janmrTeloba

THE 10 HEALTH QUESTIONS

What are the demographic essentials for Georgians?

POPULATION PROFILE

Sex ratio (2005) 0.91 males per female

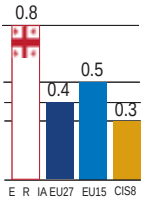
Urban (2004) 52% *EU27: 74%, EU15: 77%, CIS8: 64%*

Age structure (2005) 0–14 years 19% *EU27: 16%, EU15: 16%, CIS8: 29%*

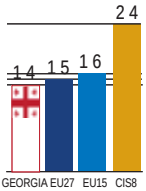
≥65 years 14% *EU27: 17%, EU15: 17%, CIS8: 7%*

Dependency ratio (2004) 58% *EU27: 49%, EU15: 50%, CIS8: 58%*

POPULATION DYNAMICS



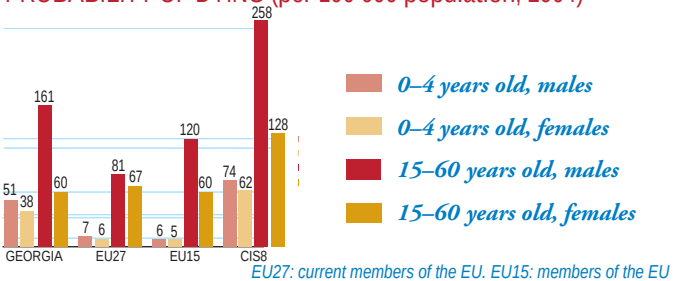
Annual growth rate (%)



Fertility rate (children born per woman)

Birth rate (live births per 1000 population)

PROBABILITY OF DYING (per 100 000 population, 2004)



EU27: current members of the EU. EU15: members of the EU

LIFE EXPECTANCY AT BIRTH (years, 2004)

Total population	73	*EU27: 78, EU15: 79, CIS8: 68*
Males	70	*EU27: 75, EU15: 76, CIS8: 64*
Females	77	*EU27: 81, EU15: 82, CIS8: 72*

HEALTHY LIFE EXPECTANCY (2002)

	Healthy life expectancy (years)					Total life expectancy lost (%)	
	At birth			At age 60 years			
	Total	Males	Females	Males	Females	Males	Females
Georgia	64	62	67	13	15	9	11
EU27	69	67	71	15	18	9	11
EU15	71	69	73	15	18	9	11
CIS8	58	56	60	10	13	12	14

Points to remember *demographic trends*

During the past decade

- The birth rate has more than hal ed.
- Population gro th has declined substantially and the population decreased by 25% in the past 15 years, mainly caused by emigration.
- Life expectancy has impro ed to a le el close to that of the EU.
- The age structure has shifted to ards a higher percentage of older people.
- Georgia has 300 000 internally displaced people.

Sources: 1, 6, 7.

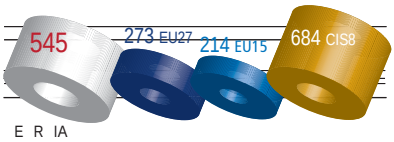
What do the Georgians suffer from?

CARDIOVASCULAR DISEASES

- The leading cause of death: 67% of the total deaths (2003).
- Within this group, the major killers in 2001 were as follows.

before 1 May 2004. CIS8: the 8 countries covered in this book.

– Diseases of the circulatory system: 545 deaths per 100 000.



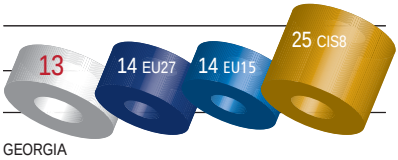
– Ischaemic heart diseases: 273 deaths per 100 000 in 2004, causing 18% of the disease burden and 33% of all deaths.
EU27: 103, EU15: 82, CIS8: 350
– Cerebrovascular diseases: 184 deaths per 100 000 (2001), causing 14% of the disease burden and 16% of all deaths.
– High blood pressure causes an estimated 24% of deaths among men and 22% of deaths among women.

CANCER (MALIGNANT NEOPLASMS)

- Cancer causes 86 deaths per 100 000 population (2001). ***EU27: 180, EU15: 170, CIS8: 110***
- There are 141 new cases of cancer per 100 000 per year (2006). ***EU27: 460, EU15: 475, CIS8: 110***
- New cases per 100 000 per year (2001): cervical cancer: 5.3 (***CIS8: 10***); breast cancer: 20 (***CIS8: 16***); and lung cancer (2006): 17 (***EU27: 54, EU15: 54, CIS8: 13***).

DIABETES

- The prevalence of diabetes is 1.3% (2006).
- Diabetes causes 2% of the disease burden and 13 deaths per 100 000 (4% of all deaths) (2001).



MENTAL HEALTH

- New cases of mental disorders (2006): 154 per 100 000 population per year. ***CIS8: 100***
- Suicide or death from self-inflicted injuries (2001): 2 per 100 000 population per year. ***EU27: 11, EU15: 10, CIS8: 8***

EU27: current members of the EU. EU15: members of the EU

- Prevalence of mental disorders (2006): 2%.
- New cases of alcoholic psychosis (2002): 1 per 100 000 population per year ***CIS8: 43***

UNINTENTIONAL INJURIES

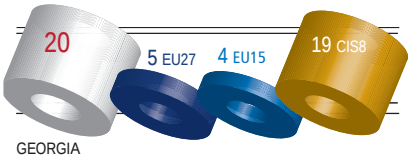
- They cause 27 deaths per 100 000 per year (2001).
- Injuries from road crashes are responsible for 4 deaths per 100 000 (2001). ***EU27: 9, EU15: 8, CIS8: 9***.

INFECTIOUS AND PARASITIC DISEASES

- Infectious diseases cause about 1% of all deaths (2003).
- Tuberculosis infections are among the highest in the WHO European Region: 104 new cases per 100 000 per year (2006). ***EU27: 17, EU15: 10, CIS8: 92***
- New cases of HIV infection (2006): 6 per 100 000. ***EU27: 6, EU15: 6, CIS8: 5***
- Sexually transmitted infections are more widespread than in the EU:
  - New cases of syphilis (2007): 8 per 100 000 per year. ***EU27 (2007): 4, EU15 (2004): 3, CIS8 (last available year): 14***
  - New cases of gonococcal infection (2007): 12 per 100 000 per year. ***EU27 (2007): 8, EU15 (2006): 9, CIS8 (last available year): 21***

CHILD AND ADOLESCENT HEALTH

- Infant mortality is more than four times higher than in the EU, with 20 deaths per 1000 live births (2005).



before 1 May 2004. CIS8: the 8 countries covered in this book.

- DTP3 immunization coverage (2006): 87% and has declined. ***EU27: 95%, EU15: 95%, CIS8: 94%***
- Death rate of children 0–4 years old from diarrhoea (2001): 3.5 per 100 000. ***EU27: 0.6, EU15: 0.3, CIS8: 37***

TOP 10 CAUSES OF DEATH IN GEORGIA (2003)

Cause	Total deaths (%)
1. Ischaemic heart disease	33
2. Cerebro ascular disease	16
3. Cirrhosis of the li er	6
4. Diabetes mellitus	4
5. Tracheal, bronchial and lung cancer	3
6. Perinatal conditions	2
7. Breast cancer	2
8. Lo er respiratory infections	2
9. Stomach cancer	2
10. Tuberculosis	2

DISEASE BURDEN IN GEORGIA, CIS8 AND THE EU (2002)

Cause	Share of disease burden (%)			
	Georgia	CIS8	EU27	EU15
Cardio ascular diseases	28	22	14	12
Neuropsychiatric disorders	22	16	30	32
Unintentional injuries	5	8	8	7
Infectious and parasitic diseases	5	7	2	2
Perinatal conditions	8	5	NA	NA
Digesti e diseases	3	6	5	4
Respiratory infections	3	6	NA	NA
Musculos eletal diseases	5	NA	4	NA
Cancer (malignant neoplasms)	3	6	13	13
Sensory organ disorders	4	4	4	4
Total noncommunicable diseases	89	82	87	84
Total communicable diseases	5	7	2	2
Total injuries	6	11	11	10

NA not a ailable.

EU27: current members of the EU. EU15: members of the EU

Points to remember

health status

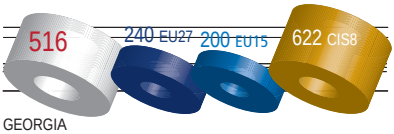
- The numbers of child deaths differ notably bet een rural and urban areas.
- Registered deaths from cardio ascular diseases, cancer and accidents ha e increased in the past decade.
- The country needs to return to a lo er tuberculosis infection rate from one that is still one of the highest in Europe, although the rate has decreased since independence.
- HI and other sexually transmitted infections are increasing, especially among middle aged people.

Sources: 1, 2, 5, 8, 9.

Where do the risks lie?

SMOKING

- Many Georgians smoke: 28% of the whole population are regular smokers, including 53% of men older than 15 years of age (2001), with tobacco consumption increasing.
- Smoking contributes to at least 9% of the disease burden and 516 deaths per 100 000 (2001).



ALCOHOL CONSUMPTION

- Reported annual consumption of pure alcohol per person (2003): 1.3 litres. ***EU27: 9.0, EU15: 9.4, CIS8: 1.5***
- Alcohol is a major risk factor, causing 6% of the overall disease burden (2003).
- Alcohol-related causes (2001): 52 deaths per 100 000. ***EU27: 67, EU15: 58, CIS8: 124***

before 1 May 2004. CIS8: the 8 countries covered in this book.

ILLE AL RU USE

- Illegal drug use causes 4% of the disease burden (2003).
- The number of injecting drug users is increasing among young people.
- First admissions to drug treatment centres (2004): 6 per 100 000 per year. ***EU27: 48, CIS8: 40***
- Georgia is a transit country for drug trafficking.

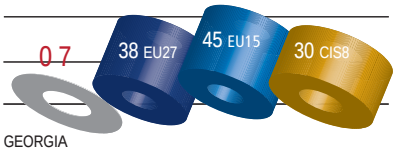
BESI

- Prevalence (2006): 5% of men and 15% of women are obese.
- High body mass index is associated with 17% of all deaths and 12% of the disease burden (2002).
- Physical inactivity is associated with 11% of deaths and 6% of the disease burden (2002).

B RNE IN EC I NS

- Salmonellosis (2006): 5 cases reported per 100 000. ***EU27: 35, EU15: 27, CIS8: 7***

CCU A I NAL EAL



- New cases of occupational diseases (2001): 0.7 reported per 100 000.
- Injured in work-related accidents (1991): 24 per 100 000 per year.
- Deaths in work-related accidents (1991): 1.5 per 100 000 per year.

Sources: 1, 10, 11, 17.

EU27: current members of the EU. EU15: members of the EU

Who is who in the Georgian public health sector?

PUBLIC ADMINISTRATION

Government Commission on Health and Social Reform Issues
Ministry of Labour, Health and Social Affairs

INSTITUTIONS UNDER THE HEALTH MINISTRY

State Agency for Social Assistance
Health and Social Programmes Agency
Health and Social Project Implementation Centre
Medical Activity Regulation Agency
National Center for Disease Control and Public Health

PARLIAMENT

Single-chamber Parliament

ACADEMIC MEDICAL INSTITUTIONS

Medical schools (universities)
Medical research institutes

PROFESSIONAL ASSOCIATIONS

Georgian Medical Association
Georgian Nursing Association
Georgian Family Medicine Association
Georgian Health Law and Bioethics Society, which focuses on patients' rights
Several speciality-related associations: Georgian Association of Cardiologists, Georgian Association of Surgeons, Association of Georgian Oncologists, Association of

before 1 May 2004. CIS8: the 8 countries covered in this book.

Georgian Paediatricians, Georgian Association of Allergy and Clinical Immunology etc.

NONGOVERNMENTAL ORGANIZATIONS

Curatio International Foundation, Bemoni Foundation, Tanadgoma Foundation

Organizations representing the interests of patients with special needs such as the Children's Nervous System Disease Rehabilitation Organization, Children's Diabetic Association and a group providing support to haemophiliacs

REGIONAL AND LOCAL ADMINISTRATION

Municipal health administrations

How are services provided?

Similar to many other countries in this region, the system has traditionally emphasized hospital care in terms of financial, human and capital resources. Improvement is expected with the launch of a new primary care strategy, the pilots of family medicine models and a reorientation of human resources policies towards better-quality primary care.

PUBLIC HEALTH

The Ministry of Labour, Health and Social Affairs oversees communicable diseases surveillance, prevention and immunization coverage. The National Centre for Disease Control and Medical Statistics determines the list of diseases to be notified. Public health centres, at the regional and district levels, are responsible for various public health measures such as implementing surveillance,

EU27: current members of the EU. EU15: members of the EU

notifying diseases and immunizations. The prevention of some diseases, such as occupational diseases, genetic disorders, certain communicable and noncommunicable diseases, and health promotion for selective conditions and population groups fall under the state programmes and are funded through the national budget in full or in part.

PRIMARY CARE

In rural areas, independent outpatient practices (including ambulatories) provide primary care. They employ about 5 staff members and cater for 1000 people. Polyclinics provide primary care in cities with up to 60 staff, covering about 10 000 people. Polyclinics may be stand-alone facilities or associated with the outpatient departments of hospitals. There are also dispensaries providing primary care services to people with specific diseases and population groups such as children and women of reproductive age. The number of medical posts and midwifery posts has declined, and they are mostly located in rural areas. Primary care services are poorly utilized, as many patients bypass them and directly access specialized outpatient and hospital care. As a result, the referral system does not work properly and primary care facilities do not deliver well: many see very few patients each day. Their equipment is usually outdated, and many providers rely on donor assistance in pharmaceutical supply.

Strongly supported by international donor organizations, especially the EU, DFID, USAID and the World Bank, family medicine has been progressively introduced in training and service provision during the past 10 years.

SECONDARY AND TERTIARY CARE

Specialized care is provided in municipal hospitals, specialized hospitals, research institutes and dispensaries. Municipal hospitals provide inpatient and outpatient care and the most basic specialist services, including emergency services. Each

before 1 May 2004. CIS8: the 8 countries covered in this book.

municipality has at least one hospital. Georgia has many specialized hospitals, which are mainly located in Tbilisi. Research institutions provide more complex mostly diagnostic services, such as radiology. Dispensaries specialize in treating people with specific conditions, such as tuberculosis or drug addiction. Bed capacity has been reduced drastically in the past two decades, and many people are deterred from seeking hospital care owing to high co-payments. Similar to primary care, many hospitals suffer from outdated and poorly maintained equipment and substantial underinvestment.

PUBLIC/PRIVATE MIX

The private sector is strongly involved in providing services. There are several hundred registered private pharmacies and some unregistered and illegal pharmacies. Nearly all dentistry practices are private. Many polyclinics and most hospitals have been privatized, and those remaining in public ownership have been transformed into joint-stock companies and corporations with limited liability.

Points to remember *service provision*

- Some ministries (Defence, Internal Affairs and ustice) other than the Ministry of Labour, Health and Social Affairs operate their o n health ser ices.
- The distribution of ser ice pro ision aries considerably throughout the country, ith Tbilisi and other cities being better supplied than rural areas.
- Many primary care facilities are poorly utilized, as there is no effecti e gate eeping and referral system.
- Appropriate use of hospital beds remains a problem – internally displaced people ithout homes are often ept in hospitals and also many people cannot afford hospital ser ices.

EU27: current members of the EU. EU15: members of the EU

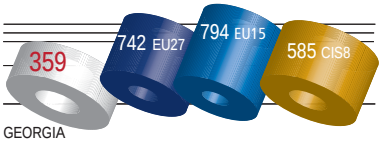
What resources are available?

HUMAN RESOURCES FOR HEALTH

Georgia has more doctors per capita than most other countries in the WHO European Region. The official incomes of doctors are very low. As a result, productivity is low and informal payments by patients are rising. Many doctors only see a few patients a day. Medical training has declined with the opening of about 50 new medical schools in the early 1990s. Many of these new schools provided education without standardization and with questionable quality, and the number of graduates from these schools was extremely low. Most are now closed. Georgia has fewer nurses than the EU, and there are substantial shortages of well-qualified nurses, particularly in rural areas. Nurses' training is not always sufficient, and they therefore often work as assistants to physicians. Both primary medical and nursing care have been strengthened recently through the introduction of family medicine training and a revised target coverage of one GP and one nurse per 25 000 population.

HEALTH PROFESSIONALS (per 100 000, 2006)

Physicians	468	*EU27: 315, EU15: 332, CIS8: 315*
Dentists	29	*EU27: 62, EU15: 66, CIS8: 25*
Nurses	359	



Pharmacists	6	*EU27: 72, EU15: 81, CIS8: 19*
GPs	23	*EU27: 98, EU15: 103, CIS8: 31*

before 1 May 2004. CIS8: the 8 countries covered in this book.

HOSPITALS (2006)

Hospitals per 100 000 inhabitants: 6
EU27: 3, EU15: 3, CIS8: 5

Hospital beds per 100 000 inhabitants: 374
EU27: 576, EU15: 564, CIS8: 559

Inpatient admissions per 100 inhabitants: 6
EU27: 18, EU15: 17, CIS8: 11

Average length of stay (days): 7
EU27: 9, EU15: 10, CIS8: 11

PHARMACEUTICALS

Patients purchase most drugs directly from pharmacies. State health programmes cover very few drugs, and ensuring that people adhere to prescriptions is difficult. There are substantial concerns about quality assurance of drugs, since an estimated 5–10% of drugs are illegally imported. Only about 5–7% of drugs are produced in Georgia; most are imported. There are about 12 wholesale pharmaceutical companies.

The role of the government is limited to accreditation and monitoring. Georgia has an essential drug list and national drug formulary.

Points to remember *resources for health*

- Georgia was one of the first countries to recognize family medicine as a specialty.
- Many hospital and primary care facilities are poorly e uipped, po ered and maintained o ing to a lac of public funding and in estment.
- There is still scope for further rationalization of hospital capacity.

Source: 1

EU27: current members of the EU. EU15: members of the EU

Who pays for what?

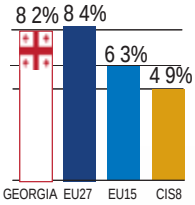
The main source of funding is through out-of-pocket payments, which cover about 70% of health expenditure. They take the form of formal co-payments by patients, formal payments to health facilities and informal payments to health care providers. About 20% of expenditure is covered by central governmental funds derived through various forms of taxation such as value-added taxes, excise taxes and income taxes. Donor funding through grants and loans contributes about 5% to health care funding and about 2% is covered through voluntary health insurance. Municipal and regional funding amounts to about 2%. A growing number of private insurance companies provide private health insurance (7 in 2007).

The basic benefit package defines which services for which population groups are subject to public funding. In practice, people are often informally charged for services within the basic benefit package.

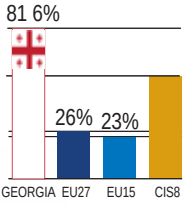
Primary care providers are paid based on a global budget adjusted to the geographical location; those working in rural areas receive higher official payments. Bonus payments apply for immunization. Family medicine teams are paid by a combination of budgets and capitation. Most hospitals receive case payments. Doctors working at hospitals receive fee-for-service payments, and doctors working at polyclinics are paid on a fee-for-service and capitation basis.

Health care providers determine the costs for the health care services beyond the state-funded programmes. These prices are largely unregulated and differ from provider to provider.

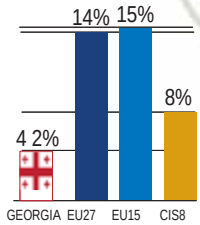
before 1 May 2004. CIS8: the 8 countries covered in this book.



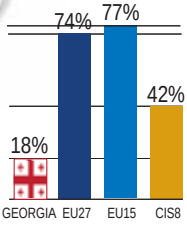
Total expenditure on health (% of GDP)



Private expenditure on health (% of total expenditure on health)



General government expenditure on health (% of total government expenditure)



General government expenditure on health (% of total health expenditure)

Private households' out-of-pocket expenditure on health 87
(% of total private health spending, 2007)

Population below poverty line 23%

EU27: current members of the EU. EU15: members of the EU

Points to remember *health financing*

- Health is not a funding priority the share of public spending on health as a share of a ailable public resources is lo .
- Georgia has one of the highest shares of out of poc et funding for health care in the WHO European Region.
- Go ernment funding for health care as a share of national income still falls significantly behind EU levels in terms of per capita public health expenditure only about US$ 48 per person per year.
- Patients re uire solid understanding of hich ser ices are free of charge, hich re uire co payment and hich need to be fully paid out of poc et.
- Formal and informal co payments for drugs and ser ices, at all le els, ma e care unaffordable to up to 30% of the population a single hospital stay may consume the monthly salary of a poor person.
- Illness of a family member is a prominent cause of family impo erishment in Georgia.

Source: 1, 2, 12, 18, 28.

How have the Georgians reformed their health care system?

The Georgian health system has undergone substantial changes since independence, and reforms accelerated from 1993 onwards with the assistance of international organizations, in particular the World Bank. In health care funding, reform steps included introducing a compulsory health insurance system in accordance with the development of a basic benefit package; privatizing health service provision and the pharmaceutical sector; introducing new provider payment schemes; and introducing formal user charges. In health administration, reforms included reorganizing administration at the central, regional and municipal levels and reducing hospital bed capacity. Primary care is a

before 1 May 2004. CIS8: the 8 countries covered in this book.

major focus of past and current health reforms, and several initiatives target the shifting of resources from hospital services to primary care. The primary care services provided free of charge were reviewed, and standards for primary care services and equipment were introduced. However, one of the major barriers for implementing sustainable health reform remains substantial governmental underinvestment in the health sector and heavy reliance on donor assistance. The following is a selected list of some specific reform measures.

- 1995: A compulsory health insurance system was introduced; an essential drug list was adopted; user charges and co-payments to drugs were formalized.
- 1996: The production and distribution of drugs were privatized.
- 1997: Private voluntary health insurance was introduced.
- 1999: A licensing exam for health care specialists was introduced. The Ministry of Health merged with the Ministry of Social Affairs.
- 1999–2000: A national health strategy and implementation plan was elaborated.
- 2000: Georgia adopted patients' rights legislation. A primary care strategy was adopted.
- 2003: Family medicine models were introduced in four pilot regions with the assistance of the EU, the United Kingdom Department for International Development and the World Bank.
- 2004: The state mandatory health insurance system was abolished.
- 2007: A new hospital plan was developed and by 2009 nearly 80% of the hospitals were privatized. A compulsory health insurance (State Medical Assistance Programme) for people below the poverty line was developed and implemented through private insurance companies; about 900 000 people are enrolled in this scheme (April 2009). By April 2009, 1.5 million people are covered by pre-paid financing schemes.

EU27: current members of the EU. EU15: members of the EU

International donor support to health reforms in Georgia has played a major role. The EU, the IMF, USAID and the World Bank provide about 70% of the total development assistance in health. Other major donors are DFID; GTZ; the Global Fund to Fight AIDS, Tuberculosis and Malaria; JICA; SIDA; UNFPA; UNICEF and WHO. Georgia has piloted some mechanisms to better coordinate donor activities.

Points to remember

health reforms

- Health reforms ha e been determined by substantial political and economic changes in the past 20 years.
- Funding reforms ha e focused on introducing and abolishing health insurance, limiting state funded ser ices and di ersifying forms of taxation for health care funding.
- Reforms of the health care deli ery system ha e included pri atizing health care pro iders, strengthening primary care and reducing hospital capacity.

Sources: 1, 2, 12, 18.

What is one of the things the Georgians have learned by doing?

IMPROVED COORDINATION BRINGS HEALTH GAINS

Technical and financial support to the Georgian health system has been substantial since independence, starting with humanitarian assistance, with a focus on covering recurrent operational costs of health services and drugs and shifting towards support to health sector reforms in the past decade. Harmonizing different donor approaches and interests with national reform objectives has been a challenge both for donors and for the country itself. To respond to that need,

before 1 May 2004. CIS8: the 8 countries covered in this book.

a coordination mechanism was introduced focusing on health problems and involving substantial interministerial collaboration. USAID, UNICEF, WHO and several ministries introduced such coordination mechanisms for cooperation on the various communicable diseases. Cooperation in primary care is managed by the primary care coordination board and management committee led by the Health and Social Project Implementation Centre with a World Bank loan of US$ 20 million and additional funding support from DFID and the EU.

What has the Regional Office been doing in Georgia?

A WHO Country Office in Georgia was established in Tbilisi in 1993. In 2006–2007, the Regional Office supported the country in:

- strengthening the health system in health funding, primary care, hospital management, pharmaceutical policy and human resource planning;
- strengthening capacity for preparedness and response to health emergencies;
- preventing noncommunicable diseases;
- bolstering maternal and child health care services; and
- promoting environmental health safety.

In 2008–2009, the Regional Office is providing support for:

- the capacity of the Ministry of Labour, Health and Social Affairs to address health funding and human resources reforms, national drug policy, social determinants of health, health emergencies and maternal and child health;

EU27: current members of the EU. EU15: members of the EU

- communicable disease surveillance and access to prevention and care; and
- policies and strategies on noncommunicable diseases.

OTHER SOURCES OF INFORMATION ON GEORGIA

Global Fund to Fight AIDS, Tuberculosis and Malaria (country web site) http://www.theglobalfund.org/programs/countrysite.aspx?countryid=GEO

Government of Georgia http://www.government.gov.ge/eng

Ministry of Labour, Health and Social Affairs http://www.moh.gov.ge

National Center for Disease Control and Public Health www.ncdc.ge

Open Society Georgia Foundation
http://www.soros.org/about/foundations/georgia

OSCE Mission to Georgia http://www.osce.org/georgia

State Medical Insurance Company
http://www.insurance.caucasus.net/index.htm

Statistics Georgia http://www.statistics.ge

UNAIDS (country web site)
http://www.unaids.org/en/CountryResponses/Countries/georgia.asp

UNICEF (country web site)
http://www.unicef.org/infobycountry/georgia.html

UNDP (country web site) http://undp.org.ge/new/index.php

WHO (country web site) http://www.who.int/countries/geo/en

World Bank's Mission in Georgia http://www.worldbank.org.ge

before 1 May 2004. CIS8: the 8 countries covered in this book.

KAZAKHSTAN

ҚАЗАҚСТАН

AREA (km²)	2.7 million Ninth largest country in the world, 7.5 times larger than Germany and nearly two thirds of the CIS8 area ***EU27: 4.3 million, EU15: 3.2 million, CIS8: 4.2 million***
POPULATION (2007)	15 million Slightly less than the Netherlands, 3% of the EU27 population and 20% of the CIS8 population ***EU27: 490 million, EU15: 387 million, CIS8: 75 million***
THE PEOPLE	Kazakh 53%, Russian 30%, Ukrainian 4%, Uzbek 4%, German 2%, Tatar 2%, Uygur 2%, other 3%

EU27: current members of the EU. EU15: members of the EU

LANGUAGE	Kazakh (state language) 64%; 95% of the population speaks Russian
FORM OF GOVERNMENT	Republic
RELIGIONS	Muslim 47%, Russian Orthodox 44%, Protestant 2%, other 7%
INDEPENDENCE	1991
GDP PER CAPITA (2008)	US$ 12 850 36% of the EU27 average and 360% of the CIS8 average ***EU27: US$ 36 000, EU15: US$ 51 000, CIS8: US$ 3570*** US$ 11 100 in purchasing power parity ***EU27: US$ 30 275, EU15: 38 600, CIS8: US$ 5950***
REGIONS AND DISTRICTS	Kazakhstan has 14 oblasts. Rayons form the next level of administration, similar to districts.
CURRENCY	Tenge 1 Tenge = US$ 0.00652 US$ 1 = 153 Tenge (2009)
HUMAN DEVELOPMENT INDEX (2008)	0.794
UNEMPLOYMENT RATE (2008)	6.6% ***EU27: 8.5%, EU15: 6.3%, CIS8: 6.5%***
MEMBER OF	IMF, OSCE, United Nations, WHO, World Bank

before 1 May 2004. CIS8: the 8 countries covered in this book. *Sources:* 1–5, 27.

HEALTH
ДЕНСАУЛЫҚ

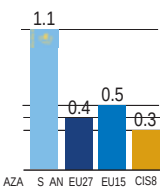
THE 10 HEALTH QUESTIONS

What are the demographic essentials for Kazakhs?

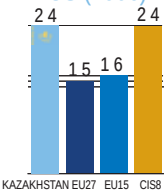
POPULATION PROFILE (2006)

Sex ratio	0.93 males per female	
Urban	57%	*EU27: 74%, EU15: 77%, CIS8: 64%*
Age structure	0–14 years 24%	*EU27: 16%, EU15: 16%, CIS8: 29%*
	≥65 years 8%	*EU27: 17%, EU15: 17%, CIS8: 7%*
Dependency ratio	47%	*EU27: 49%, EU15: 50%, CIS8: 58%*

POPULATION DYNAMICS (2006)



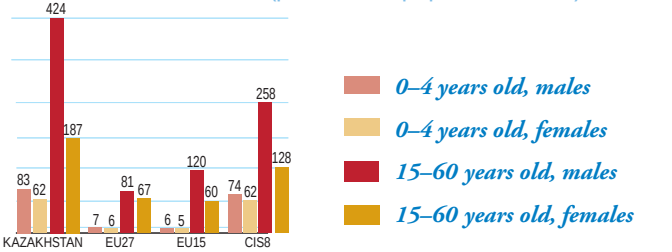
Annual growth rate (%)



Fertility rate (children born per woman)

Birth rate (live births per 1000 population)

PROBABILITY OF DYING (per 100 000 population, 2004)



EU27: current members of the EU. EU15: members of the EU

LIFE EXPECTANCY AT BIRTH (years, 2004)

Total population	61	*EU27: 78, EU15: 79, CIS8: 68*
Males	56	*EU27: 75, EU15: 76, CIS8: 64*
Females	67	*EU27: 81, EU15: 82, CIS8: 72*

HEALTHY LIFE EXPECTANCY (2002)

	Healthy life expectancy (years)					Total life expectancy lost (%)	
	At birth			At age 60 years			
	Total	Males	Females	Males	Females	Males	Females
aza hstan	55	53	59	10	13	10	14
EU27	69	67	71	15	18	9	11
EU15	71	69	73	15	18	9	11
CIS8	58	56	60	10	13	12	14

Points to remember *demographic trends*

During the past decade

- The population has declined due to substantial emigration follo ing independence.
- aza hstan has one of the largest gender gaps in life expectancy bet een males and females in the orld.
- The fertility rate is high, leading to the young population structure.
- Life expectancy differs dramatically bet een regions ithin the country.

Sources: 1–7, 17.

What do the Kazakhs suffer from?

CARDIOVASCULAR DISEASES (2004)

- The leading cause of death: 46% of the total deaths (2003).
- Within this group, the major killers are as follows (2006).

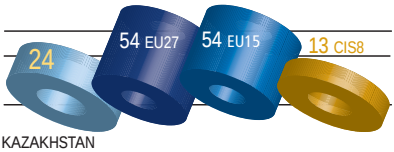
before 1 May 2004. CIS8: the 8 countries covered in this book.

– Diseases of the circulatory system: 829 deaths per 100 000.

– Ischaemic heart disease: 371 deaths per 100 000, causing 11% of the disease burden and 28% of deaths. ***EU27: 103, EU15: 82, CIS8: 350***
– Cerebrovascular diseases: 204 deaths per 100 000, causing 7% of the disease burden and 15% of all deaths.
– High blood pressure causes an estimated 12% of deaths among men and 13% of deaths among women.

CANCER (MALIGNANT NEOPLASMS) (2006)

- Cancer causes 167 deaths per 100 000 population. ***EU27: 180, EU15: 170, CIS8: 110***
- There are 187 new cases of cancer per 100 000 per year, 40% of the rate of cancer in the EU27. ***EU27: 460, EU15: 475, CIS8: 110***
- New cases per 100 000 per year: cervical cancer: 16 (***CIS8: 10***); breast cancer: 38 (***CIS8: 16***); and lung cancer: 24.



RESPIRATORY DISEASES

- Chronic obstructive pulmonary disease causes 3% of all deaths and 3% of the disease burden (2002).

DIABETES

- The prevalence of diabetes is 0.9% and is increasing (2006).
- Diabetes is responsible for 11 deaths per 100 000 (2006). ***EU27: 14, EU15: 14, CIS8: 25***

EU27: current members of the EU. EU15: members of the EU

MENTAL HEALTH

Per 100 000 population per year (2006):

- New cases of mental disorders: 144. ***CIS8: 100***
- Suicide or death from self-inflicted injuries: 27. ***EU27: 11, EU15: 10, CIS8: 8***
- New cases of alcoholic psychosis: 328. ***CIS8: 43***

UNINTENTIONAL INJURIES

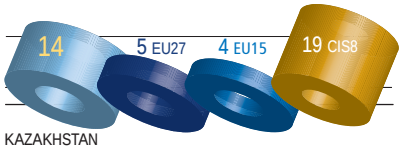
- They cause 162 deaths per 100 000 per year (2006). ***EU27: 42, EU15: 36, CIS8: 61***
- Injuries from road crashes are responsible for 12 deaths per 100 000 (2003). ***EU27: 9, EU15: 8, CIS8: 9***

INFECTIOUS AND PARASITIC DISEASES

- Infectious diseases cause about 2% of all deaths (2003).
- Tuberculosis infections are very frequent: 155 new cases per 100 000 per year (2006). ***EU27: 17, EU15: 10, CIS8: 92***
- New cases of HIV infection: 11 per 100 000 per year (2006). ***EU27: 6, EU15: 6, CIS8: 5***
- Sexually transmitted infections are among the highest in the WHO European Region.
  - New cases of syphilis (2007): 48 per 100 000. ***EU27 (2007): 4, EU15 (2004): 3, CIS8 (last available year): 14***
  - New cases of gonococcal infection (2007): 50 per 100 000. ***EU27 (2007): 8, EU15 (2006): 9, CIS8 (last available year): 21***

CHILD AND ADOLESCENT HEALTH

- There are 14 infant deaths per 1000 live births (2006) (based on a national definition of live births).



before 1 May 2004. CIS8: the 8 countries covered in this book.

- DTP3 immunization coverage (2006): 100%. ***EU27: 95%, EU15: 95%, CIS8: 94%***
- Death rate of children 0–5 years old from diarrhoea (2006): 6 per 100 000. ***EU27: 0.6, EU15: 0.3, CIS8: 37***

TOP 10 CAUSES OF DEATH IN KAZAKHSTAN (2003)

Cause	Total deaths (%)
1. Ischaemic heart disease	28
2. Cerebro ascular disease	15
3. Poisoning	5
4. Self-inflicted injuries	3
5. Hypertensi e heart disease	3
6. Chronic obstructi e pulmonary disease	3
7. Tuberculosis	3
8. Tracheal, bronchial and lung cancer	2
9. Lo er respiratory infections	2
10. Cirrhosis of the li er	2

DISEASE BURDEN IN KAZAKHSTAN, THE CIS8 AND THE EU (2002)

Cause	Share of disease burden (%)			
	Ka akhstan	CIS8	EU27	EU15
Cardio ascular diseases	22	22	14	12
Neuropsychiatric disorders	14	16	30	32
Unintentional injuries	13	8	8	7
Infectious and parasitic diseases	5	7	2	2
Perinatal conditions	4	5	NA	NA
Digesti e diseases	5	6	5	4
Respiratory infections	4	6	NA	NA
Respiratory diseases	4	4	6	7
Cancer (malignant neoplasms)	7	6	13	13
Intentional injuries	7	NA	3	NA
Total noncommunicable diseases	76	82	87	84
Total communicable diseases	5	7	2	2
Total injuries	19	11	11	10

NA not a ailable.

EU27: current members of the EU. EU15: members of the EU

Points to remember

health status

- Unintentional injuries account for the highest burden of disease among males.
- The number of deaths due to respiratory diseases, infections and external causes is particularly high.
- Cardio ascular mortality is increasing.
- Mortality among infants and adolescents is significantly higher than in neighbouring countries.
- The increase in mortality from digesti e diseases is alarming, especially for diseases related to alcohol such as chronic li er disease and cirrhosis.
- Tuberculosis has tripled since independence, and aza hstan is experiencing an emerging HI epidemic.

Sources: 1, 2, 5, 8, 9.

Where do the risks lie?

SMOKING

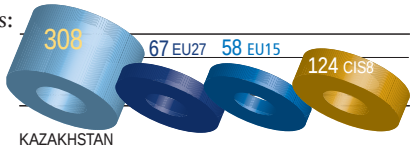
- The adult smoking prevalence is high: 23% of the population are regular smokers (2004).
  EU27: 28, EU15: 28, CIS8: 22
- Kazakhstan has one of the highest proportions of men smoking in the WHO European Region: 41% (9% among women) (2004).
- Smoking accounts for 13% of the disease burden and 806 deaths per 100 000 (2003).
  EU27: 240, EU15: 200, CIS8: 622

ALCOHOL CONSUMPTION (2003)

- Total recorded alcohol consumption is 2.2 litres per person per year. ***EU27: 9.0, EU15: 9.4, CIS8: 1.5***
- Alcohol is a major risk factor among men, causing 19% of the disease burden.

before 1 May 2004. CIS8: the 8 countries covered in this book.

- Alcohol-related causes: 308 deaths per 100 000.



ILLEGAL DRUG USE

- Illegal drug use causes 1% of the disease burden (2003).
- Cannabis is the most frequently used illicit drug: 4% of the population 15–65 years old (2000).
- Prevalence of opiate abuse (2006): 1% (15–65 years old).
- First admissions to drug treatment centres (2006): 214 per 100 000 per year. ***EU27: 48, CIS8: 40***

OBESITY

- Prevalence (2006): 8% of men and 11% of women.
- High body mass index is associated with 11% of all deaths and accounts for an estimated 5% of the disease burden (2002).
- Physical inactivity is associated with 12% of deaths and 7% of the disease burden (2002).

FOODBORNE INFECTIONS

- Salmonellosis (2003): 17 cases reported per 100 000. ***EU27: 35, EU15: 27, CIS8: 7***

OCCUPATIONAL HEALTH

- New cases of occupation-related disease (2006): 3 per 100 000 per year. ***EU27 (2005): 38, EU15 (1999): 45, CIS8 (last available): 30***
- Injured in work-related accidents (2006): 21 per 100 000 per year. ***EU27 (2006): 905, EU15 (2005): 1054, CIS8 (last available): 9***
- Deaths in work-related accidents (2006): 2.7 per 100 000 per year. ***EU27 (2006): 1.2, EU15 (2005): 1.1, CIS8 (last available): 1.4***

Sources: 1, 10, 11.

EU27: current members of the EU. EU15: members of the EU

Who is who in the Kazakh public health sector?

PUBLIC ADMINISTRATION

Ministry of Health

INSTITUTIONS UNDER THE HEALTH MINISTRY

Committee on Health Services Quality Control
Committee on Pharmaceutical Control
Committee on Sanitary-Epidemiological Surveillance
Republican hospitals and research centres
National Centre for Healthy Lifestyles
Medical universities (in collaboration with the Ministry of Education and Science)

PARLIAMENT

The Parliament is made up of an upper chamber (Senate) and a lower chamber (Majilis)
Committees on social and cultural development of the Senate and the Majilis
Social Council of the government

PROFESSIONAL ASSOCIATIONS

Association of Family Physicians
Several associations of physicians have limited influence and regulatory role

ACADEMIC INSTITUTIONS

Medical schools
41 nursing colleges
A postgraduate medical school
Kazakhstan School of Public Health

before 1 May 2004. CIS8: the 8 countries covered in this book.

NONGOVERNMENTAL ORGANIZATIONS

Patients' organizations such as the Diabetes Association of the Republic of Kazakhstan and others

REGIONAL ADMINISTRATION

14 health departments at the oblast level with some increasing autonomy in managing health services and Almaty and Astana city departments

Rayons are responsible for running basic secondary and most primary care services

How are services provided?

The organization of health care differs between rural and urban areas. This delivery system is in the process of being reorganized.

PUBLIC HEALTH

In Kazakhstan, various agencies perform public health functions, including the sanitary-epidemiological service, HIV/AIDS centres, the National Centre for Healthy Lifestyles, primary health care providers, nongovernmental organizations and international agencies. Kazakhstan has national programmes to combat tuberculosis and HIV and maintains an extensive network of diabetes centres.

PRIMARY CARE

Stand-alone or hospital-associated polyclinics provide primary care services in cities, with 10–20 staff each, offering a variety of diagnostic and therapeutic services (but also secondary care). Polyclinics are still very specialized in certain population groups (adult, children and women of reproductive age) but are

EU27: current members of the EU. EU15: members of the EU

encouraged to offer services across population groups. Many of them also specialize in skills (internal medicine, paediatric care and gynaecology).

Feldsher-obstetrical points in rural areas provide basic treatment, prevention and ante- and postnatal care. Primary care is also available in family practice clinics, small rural hospitals and central rayon hospitals. Feldsher-midwifery posts are being restructured to become new medical posts – larger and encompassing a wider range of services.

SECONDARY AND TERTIARY CARE

Polyclinics provide secondary care, mainly in the public sector, and offer primary care as well. Small rural hospitals offer basic emergency, secondary and maternity care, but many have been closed due to their poor conditions. Central rayon hospitals offer a range of specialist services and have between 100 and 300 beds. Oblast or city hospitals have up to 600 beds and more sophisticated technological equipment. National (republican) specialist institutes, hospitals and research hospitals offer training and tertiary care.

PUBLIC/PRIVATE MIX

Most dental care and 96% of the pharmacies in hospitals have become private, profit-making entities, whereas the state continues to own hospitals, sanatoria and large polyclinics. However, although still small in share, the number of private hospitals almost doubled between 1999 and 2004, and the number of private operation facilities almost tripled. In 2005, 14% of all physicians worked in the private sector. A growing number of semi-private health facilities ("state enterprises") remain in public ownership but have some autonomy in managing their own funds and charge fees for certain services.

before 1 May 2004. CIS8: the 8 countries covered in this book.

Points to remember *service provision*

- Access to ser ices in rural areas is at a critical stage due to a shortage of facilities and qualified staff and poor public and private transport. Rele ant and uality ser ices are also constrained by shortages of drugs and medical e uipment, poor sanitary and hygienic conditions, the poor state of capital maintenance due to a shortage of funds and other factors.
- A tendency persists that the patients are being referred to high le els.
- There ha e been se eral initiati es to reform primary care, but these need to be maintained consistently to achieve significant change of scale.
- National health policies ha e currently focused on impro ing inpatient and outpatient ser ice pro ision, aiming at standardization and uality control.
- Coordination between the different levels of care is insufficient, as patients access e ery le el ithout rigorous referral practice.
- The modernization of emergency ser ices remains a challenge.

What resources are available?

HUMAN RESOURCES FOR HEALTH

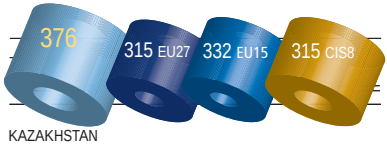
Kazakhstan faces serious problems in meeting the demand for qualified human resources. The numbers of health professionals have dropped substantially, due to fewer new graduates, the ageing of health professionals, emigration and labour drain to other sectors of the economy or abroad. The problems are profound in primary care and especially in rural sites, which only have about 25–50% of the staff of urban facilities. Some specialties such as specialists in management are absent nearly everywhere. Major progress was the

EU27: current members of the EU. EU15: members of the EU

establishment of the Kazakhstan School of Public Health in 1997, which offers postgraduate training in public health.

HEALTH PROFESSIONALS (per 100 000, 2006)

Physicians 376



Dentists	37	*EU27: 62, EU15: 66, CIS8: 25*
Nurses	682	*EU27: 742, EU15: 794, CIS8: 585*
Pharmacists	92	*EU27: 72, EU15: 81, CIS8: 19*
GPs	22	*EU27: 98, EU15: 103, CIS8: 31*

HOSPITALS (2006)

Hospitals per 100 000 inhabitants: 7
EU27: 3, EU15: 3, CIS8: 5

Hospital beds per 100 000 inhabitants: 778
EU27: 576, EU15: 564, CIS8: 559

Inpatient admissions per 100 inhabitants: 14
EU27: 18, EU15: 17, CIS8: 11

Average length of stay (days): 13
EU27: 9, EU15: 10, CIS8: 11

PHARMACEUTICALS

Domestic production in Kazakhstan is strongly encouraged and is growing, with more than 100 domestic producers already available, some of which export to the former USSR countries and western Europe. Domestic production currently accounts for about 16% of the market volume. Regulatory control and quality monitoring of imported drugs can further improve, as half the drugs are estimated to be imported illegally. To ensure the quality control of drugs, a Committee on Pharmaceutical Control and a national expertise centre are in place. There are currently no price regulations, although a price ceiling system is

before 1 May 2004. CIS8: the 8 countries covered in this book.

planned for public procurement of pharmaceuticals for primary health care. Access to drugs remains a core problem, in particular for poorer patients, although Kazakhstan generally has better access to essential medicines than other countries in the region.

Points to remember *resources for health*

- The numbers of hospitals and hospital beds ere reduced during the 1990s, especially in rural areas, but the net or of health facilities continues to be hospital oriented.
- Hospital producti ity aries bet een regions and can further impro e.
- Urban rural differences in the numbers of health professionals is significant.
- Training of health professionals is a ey challenge of the health system. Currently, ne standards for medical and pharmaceutical training are being enacted.
- Primary health care pro iders face problems in recruiting staff, especially in illages.
- Salaries for health professionals are far belo the national a erage.

Source: 1

Who pays for what?

Health funding comes from three main sources: the government budget, official user fees and informal payments. The first is mainly collected by oblast (regional) administrations, which transfer some funds to the republican level but keep a significant share. Some national funds are redistributed based on a per capita formula to the oblasts, where all national and local funds have been pooled since 2005. Since then, the oblast health departments have acted as single payers.

The entitlement to state-funded, officially free services has been regulated by a guaranteed benefit package of services since 2000.

EU27: current members of the EU. EU15: members of the EU

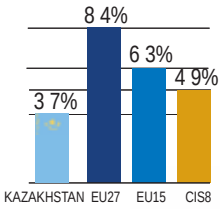
The package includes emergency care, outpatient and inpatient care. It is revised twice a year. Co-payments for services defined in the benefit package are illegal. Children, adolescents and women of reproductive age are exempted from co-payments for certain pharmaceuticals.

There are two types of out-of-pocket payments: official and unofficial. Hospitals and other health facilities officially charge fees for services not included in the basic benefit package. The amounts are determined by oblast health administrations and vary considerably between oblasts. Patients also pay unofficial fees for services that should be provided for free, since budgetary funds are often not sufficient. The extent of overall unofficial payments is believed to be substantial.

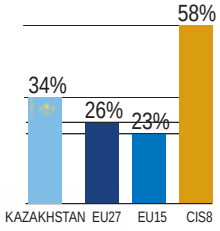
Primary health care facilities are paid for through capitation, specialized outpatient facilities by fee-for-service payments and hospitals according to diagnosis-related groups. Some specialized hospitals continue to be paid through line items of expenditures such as the number of staff and number of beds.

Only 5% of the population purchase voluntary health insurance, which does not play a major role in health funding.

THE ECONOMIC PICTURE (2008)

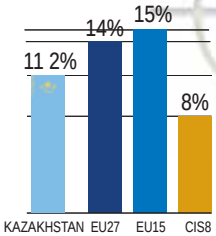


Total expenditure on health (% of GDP)

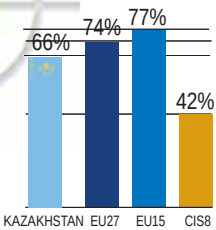


Private expenditure on health (% of total expenditure on health)

before 1 May 2004. CIS8: the 8 countries covered in this book.



General government expenditure on health (% of total government expenditure)



General government expenditure on health (% of total health expenditure)

Private households' out-of-pocket expenditure on health 98
(% of total private health spending, 2007)

Population below poverty line 15%

Points to remember *health financing*

- aza hstan has one of the most rapidly gro ing economies orld ide, largely dri en by the country s booming energy sector and oil resources.
- Health funding per capita differs significantly between the oblasts and bet een urban and rural areas.
- Budgetary allocations to the health system dropped substantially after independence but increased five-fold between 2000 and 2006.
- Out of poc et payments increased dramatically follo ing the decline in public funding.
- Co payments deter poorer population groups from using health ser ices.
- Similar to other countries in the region, hospital ser ices ha e recei ed most of the public funding 54% of total expenditure.
- A health insurance funding model was briefly in place in the late 1990s, but the country has re erted to budgetary funding.
- Pharmaceutical prices ha e increased sharply and are no longer affordable for large parts of the population.

Sources: 1, 2, 12, 19, 28.

EU27: current members of the EU. EU15: members of the EU

How have the Kazakhs reformed their health care system?

- 1991: Privatization of state facilities was legalized, although the pace of privatization in the health sector was initially very limited.
- 1993: New state enterprises were allowed to enter the market.
- 1995: Service management and financial decisions were delegated to the oblasts; public health facilities were allowed to charge official user fees.
- 1996: A mandatory health insurance fund was established and abolished in 1998.
- 1997: The National Centre for Healthy Lifestyles was established, with the launch of a national programme on healthy lifestyles.
- 2004–2005: New policies for quality control of health services and the Committee on Health Services Quality Control were established.
- 2004: A National Programme of Health Care Reform and Development was adopted, to cover the period 2005–2010.
- 2005: A guaranteed package of basic health services provided free of charge was approved.

A plethora of external agencies provide technical and financial support to the health system and priority programmes on family planning, safe motherhood, tuberculosis, HIV, disease prevention and health promotion and medical equipment and supplies. The major agencies include the Asian Development Bank, the DFID, the EU, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the International Federation of Red Cross and Red Crescent Societies, USAID, UNDP, UNFPA, UNICEF, WHO, the World Bank and the governments of

before 1 May 2004. CIS8: the 8 countries covered in this book.

some other countries.Bank provide about 70% of the total development assistance in health. Other major donors are DFID, GTZ, JICA, SIDA, UNFPA, UNICEF and WHO. Georgia has piloted some mechanisms to better coordinate donor activities.

Points to remember *health reforms*

- During the transition time, the health reforms initiated before independence ere stopped or mo ed at a rather slo pace.
- Recently, with strong government commitment, a major reform initiati e is under ay, mainly for strengthening and reorienting primary care, reforming health funding and introducing ne pro ider payment schemes.

What is one of the things the Kazakhs have learned by doing?

COMMITTING TO HEALTHY LIFESTYLES

The highest political level has progressively recognized the importance of health promotion and disease prevention in the past two decades. A strategy developed in early 1997 led to the appointment of a cross-government intersectoral health promotion council and a National Centre for Healthy Lifestyles, responsible for national guidance on the promotion of healthy lifestyles and disease-preventive interventions, in the same year. With increases in funding and consistent efforts, the Centre expanded to 14 oblast, 10 urban and 10 village offices, and overall 250 health promotion offices throughout the country. In 2006, the Centre employed 1600 staff. The Healthy Lifestyle Service develops and disseminates more than 40 items of visual aids and educational materials annually, reaching more than

EU27: current members of the EU. EU15: members of the EU

12 million copies. The Centre disseminates messages through a variety of channels, including national and regional television and radio stations. In the national mass media, 8 television and 2 weekly radio programmes have been developed, and 20 local stations are broadcasting 15 television and 16 radio programmes on health promotion. The Centre also runs its own press centre and has introduced an annual health promotion award to journalists. The Centre has attracted the attention of neighbouring countries, and similar services are now being developed in Kyrgyzstan, Tajikistan and Uzbekistan.

What has the Regional Office been doing in Kazakhstan?

The WHO Liaison Office in Kazakhstan was opened in Almaty in 1994. In 2005, it became a Country Office and moved to Astana, leaving a small sub-office in Almaty. In 2007, the Country Office received full diplomatic accreditation in Kazakhstan. During 2006 and 2007, the Regional Office supported Kazakhstan in:

- strengthening core health system functions;
- improving maternal and child health;
- strengthening the prevention and control of major communicable diseases;
- preventing and managing noncommunicable diseases, with an emphasis on healthy lifestyles;
- addressing environmental health risks; and
- strengthening national capacity in emergency preparedness and response.

before 1 May 2004. CIS8: the 8 countries covered in this book.

For 2008–2009, the Regional Office is supporting Kazakhstan in:

- strengthening maternal and child health;
- strengthening the prevention and control of major communicable diseases; and
- strengthening health systems.

EU27: current members of the EU. EU15: members of the EU

OTHER SOURCES OF INFORMATION ON KAZAKHSTAN

Eurasianet Kazakhstan
http://www.eurasianet.org/resource/kazakhstan/index.shtml

Global Fund to Fight AIDS, Tuberculosis and Malaria (country web site) http://www.theglobalfund.org/programs/countrysite.aspx?countryid=KAZ

Government of Kazakhstan http://www.government.kz

Ministry of Health http://www.mz.gov.kz

National School of Public Health http://www.ksph.kz

OSCE Project Coordinator in Astana http://www.osce.org/astana

Soros Foundation – Kazakhstan
http://www.soros.org/about/foundations/kazakhstan

UNAIDS (country web site) http://www.unaids.org/en/Regions_Countries/Countries/kazakhstan.asp

UNDP (country web site) http://www.undp.kz

UNFPA (country web site) http://kazakhstan.unfpa.org/st

UNICEF (country web site)
http://www.unicef.org/kazakhstan/health.html

WHO (country web site) http://www.who.int/countries/kaz/en

World Bank Mission in Kazakhstan http://www.worldbank.org.kz

before 1 May 2004. CIS8: the 8 countries covered in this book.

KYRGYZSTAN

КЫРГЫЗ РЕСПУБЛИКАСЫ

AREA (km²)	199 900 Two thirds of Italy ***EU27: 4.3 million, EU15: 3.2 million, CIS8: 4.2 million***
POPULATION (2007)	5.4 million About the same as Slovakia, 1% of the EU27 and 7% of CIS8 ***EU27: 490 million, EU15: 387 million, CIS8: 75 million***
THE PEOPLE	Kyrgyz 65%, Uzbek 14%, Russian 12%, Dugan 1%, Ukrainian 1%, Uygur 1%, other 6% (1999 census)

EU27: current members of the EU. EU15: members of the EU

LANGUAGE	Kyrgyz 65%, Uzbek 13.5%, Russian 12.5%, other 9% (1999 census)
FORM OF GOVERNMENT	Republic
RELIGIONS	Muslim 75%, Russian Orthodox 20%, other 5%
INDEPENDENCE	1991
GDP PER CAPITA (2008)	US$ 961 3% of the EU27 average and 27% of the CIS8 average ***EU27: US$ 36 000, EU15: US$ 51 000, CIS8: US$ 3570*** US$ 2230 in purchasing power parity ***EU27: US$ 30 275, EU15: 38 600, CIS8: US$ 5950***
REGIONS, DISTRICTS AND LOCAL COUNCILS	Seven provinces and one city
CURRENCY	Som 1 Som = US$ 0.02343 US$ 1 = 42.67 Som (2009)
HUMAN DEVELOPMENT INDEX (2008)	0.794
UNEMPLOYMENT RATE (2008)	6.6% ***EU27: 8.5%, EU15: 6.3%, CIS8: 6.5%***
MEMBER OF	IMF, OSCE, United Nations, WHO, World Bank, WTO

before 1 May 2004. CIS8: the 8 countries covered in this book. *Sources:* 1–5, 27.

HEALTH
ДЕН СООЛУК

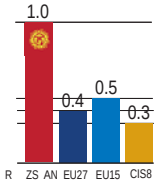
THE 10 HEALTH QUESTIONS

What are the demographic essentials for Kyrgyz?

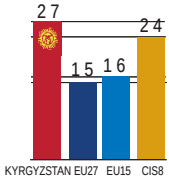
POPULATION PROFILE (2004)

Sex ratio	0.96 males per female	
Urban	37%	*EU27: 74%, EU15: 77%, CIS8: 64%*
Age structure	0–14 years 35%	*EU27: 16%, EU15: 16%, CIS8: 29%*
	≥65 years 6%	*EU27: 17%, EU15: 17%, CIS8: 7%*
Dependency ratio	62%	*EU27: 49%, EU15: 50%, CIS8: 58%*

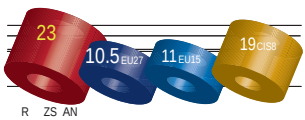
POPULATION DYNAMICS (2006)



Annual growth rate (%)

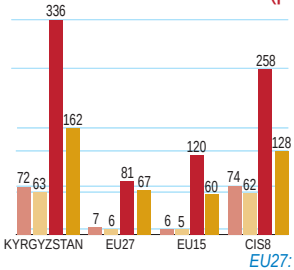


Fertility rate (children born per woman)



Birth rate (live births per 1000 population)

PROBABILITY OF DYING (per 100 000 population, 2004)



0–4 years old, males

0–4 years old, females

15–60 years old, males

15–60 years old, females

EU27: current members of the EU. EU15: members of the EU

LIFE EXPECTANCY AT BIRTH (years, 2004)

Total population	63	*EU27: 78, EU15: 79, CIS8: 68*
Males	59	*EU27: 75, EU15: 76, CIS8: 64*
Females	67	*EU27: 81, EU15: 82, CIS8: 72*

HEALTHY LIFE EXPECTANCY (2002)

	Healthy life expectancy (years)					Total life expectancy lost (%)	
	At birth			At age 60 years			
	Total	Males	Females	Males	Females	Males	Females
yrgyzstan	55	52	58	10	13	14	15
EU27	69	67	71	15	18	9	11
EU15	71	69	73	15	18	9	11
CIS8	58	56	60	10	13	12	14

Points to remember *demographic trends*

During the past decade, yrgyzstan has experienced the follo ing.

- The birth rate is high and population has gro n by almost 20% despite emigration.
- The population is young, ith 35% 0–14 years old, more than half the population of or ing age and less than 10% older.
- Infant and maternal mortality rates ha e declined, although at a slo er pace than in the EU countries.
- Mortality rates among children younger than five years are still very high.

Sources: 1, 2, 6–8.

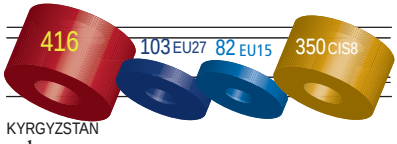
What do the Kyrgyz suffer from?

CARDIOVASCULAR DISEASES

- The leading cause of death: 52% of the total deaths (2003).
- Within this group, the major killers are as follows.
  - Diseases of the circulatory system (2006): 733 deaths per 100 000. ***EU27: 273, EU15: 214, CIS8: 684***

before 1 May 2004. CIS8: the 8 countries covered in this book.

– Ischaemic heart disease (2006): 416 deaths per 100 000, causing 7% of the disease burden.



– Cerebrovascular diseases (2006): 264 deaths per 100 000, causing 7% of the disease burden and 19% of all deaths.
– High blood pressure causes an estimated 5% of deaths among men and 7% of deaths among women (2002).

CANCER (MALIGNANT NEOPLASMS) (2006)

- Cancer causes 167 deaths per 100 000 population. ***EU27: 180, EU15: 170, CIS8: 110***
- There are 87 new cases of cancer per 100 000 per year, one fifth the rate in the EU27. ***EU27: 460, EU15: 475, CIS8: 110***
- New cases per 100 000 per year: 13 cervical cancer: (***CIS8: 10***); breast cancer: 18 (***CIS8: 16***); and lung cancer: 9 (***EU27: 54, EU15: 54, CIS8: 13***).

RESPIRATORY DISEASES

- Chronic obstructive pulmonary disease causes 6% of all deaths and 4% of the disease burden (2002).

DIABETES

- The prevalence of diabetes is 0.5% (2006).
- Diabetes causes 11 deaths per 100 000 per year (2006). ***EU27: 14, EU15: 14, CIS8: 25***

MENTAL HEALTH

Per 100 000 population per year:

- New cases of mental disorders (2006): 122. ***CIS8: 100***
- Suicide or death from self-inflicted injuries (2006): 10.

EU27: current members of the EU. EU15: members of the EU

- New cases of alcoholic psychosis (2006): 9. ***CIS8: 43***

UNINTENTIONAL INJURIES

- They cause 94 deaths per 100 000 per year (2006). ***EU27: 42, EU15: 36, CIS8: 61***
- Injuries from road crashes are responsible for 17 deaths per 100 000 per year (2006). ***EU27: 9, EU15: 8, CIS8: 9***

INFECTIOUS AND PARASITIC DISEASES

- Infectious diseases cause 3% of all deaths (2003).
- Tuberculosis infection is common: 120 new cases of tuberculosis per 100 000 per year (2006). ***EU27: 17, EU15: 10, CIS8: 92***
- New cases of HIV infection (2006): 5 per 100 000. ***EU27: 6, EU15: 6, CIS8: 5***
- Sexually transmitted infections (per 100 000):
  - New cases of syphilis (2007): 25. ***EU27 (2007): 4, EU15 (2004): 3, CIS8 (last available year): 14***
  - New cases of gonococcal infection (2007): 22. ***EU27 (2007): 8, EU15 (2006): 9, CIS8 (last available year): 21***

CHILD AND ADOLESCENT HEALTH

- Infant mortality (2006): 329 deaths per 1000 live births. ***EU27: 5, EU15: 4, CIS8: 19***
- DTP3 immunization coverage (2006): 92%. ***EU27: 95%, EU15: 95%, CIS8: 94%***
- Death rate of children 0–5 years old from diarrhoea (2006): 35 per 100 000, which is very high.

before 1 May 2004. CIS8: the 8 countries covered in this book.

TOP 10 CAUSES OF DEATH IN KYRGYZSTAN (2003)

Cause	Total deaths (%)
1. Ischaemic heart disease	24
2. Cerebro ascular disease	18.5
3. Chronic obstructi e pulmonary disease	6
4. Perinatal conditions	5
5. Lo er respiratory infections	5
6. Cirrhosis of the li er	4
7. Tuberculosis	2
8. Stomach cancer	1.7
9. Nephritis and nephrosis	1.7
10. Self-inflicted injuries	1.7

DISEASE BURDEN IN KYRGYZSTAN, CIS8 AND THE EU (2002)

Cause	Share of disease burden (%)			
	Kyrgy stan	CIS8	EU27	EU15
Cardio ascular diseases	20	22	14	12
Neuropsychiatric disorders	14	16	30	32
Unintentional injuries	10	8	8	7
Infectious and parasitic diseases	8	7	2	2
Perinatal conditions	7	5	NA	NA
Digesti e diseases	6	6	5	4
Respiratory infections	6	6	NA	NA
Respiratory diseases	6	4	6	7
Cancer (malignant neoplasms)	5	6	13	13
Sensory organ disorders	4	4	4	4
Total noncommunicable diseases	79	82	87	84
Total communicable diseases	8	7	2	2
Total injuries	13	11	11	10

NA not a ailable.

EU27: current members of the EU. EU15: members of the EU

Points to remember

health status

- The predominant burden of diseases is due to noncommunicable diseases.
- During the past decade, the incidence of tuberculosis has doubled and sexually transmitted infections ha e increased dramatically.
- The spread of tuberculosis, malaria and HI remains a challenge.
- Immunization rates ha e been dropping in recent years.

Sources: 1, 2, 5, 9, 12, 17.

Where do the risks lie?

SMOKING

- The adult smoking prevalence is 20% of the population (regular smokers) (2005).
- The rate is especially high among men: 41% are regular smokers (1% of women) (2005).
- Smoking accounts for 11% of the disease burden and 808 deaths per 100 000 (2003).
  EU27: 240, EU15: 200, CIS8: 622

ALCOHOL CONSUMPTION

- Total alcohol consumption (2003): 2.4 litres per person per year. ***EU27: 9.0, EU15: 9.4, CIS8: 1.5***
- Alcohol is a major risk factor among men, causing 6% of the overall disease burden and 9% among men (2003).
- Alcohol-related causes (2006): 175 deaths per 100 000.
  EU27: 67, EU15: 58, CIS8: 124

ILLEGAL DRUG USE

- Cannabis is the most frequently used illicit drug: 6.4% of the population 15–65 years old (2001).

before 1 May 2004. CIS8: the 8 countries covered in this book.

- Prevalence of opiate abuse (2006): 0.6% (15–65 years old).
- First admissions to drug treatment centres (2006): 10 per 100 000 per year. ***EU27: 48, CIS8: 40***

OBESITY

- Prevalence (2006): 5% of men and 14% of women.
- High body mass index is associated with 11% of all deaths and 5% of the disease burden (2003).
- Physical inactivity is associated with 6% of deaths and 2% of the disease burden (2003).

FOODBORNE INFECTIONS

- Salmonellosis (2002): 6 cases reported per 100 000. ***EU27: 35, EU15: 27, CIS8: 7***

OCCUPATIONAL HEALTH

- New cases of occupation-related disease (2002): 0.5 per 100 000. ***EU27 (2005): 39, EU15 (1999): 45, CIS8 (last available): 30***
- Injured in work-related accidents (2006): 3 per 100 000, but this is probably underreported. ***EU27 (2006): 905, EU15 (2005): 1054, CIS8 (last available): 9***
- Deaths in work-related accidents (2006): 0.4 per 100 000. ***EU27 (2006): 1.2, EU15 (2005): 1.1, CIS8 (last available): 1.4***

Sources: 1, 10, 11.

Who is who in the Kyrgyz public health sector?

PUBLIC ADMINISTRATION

Ministry of Health

INSTITUTIONS UNDER THE HEALTH MINISTRY

Mandatory Health Insurance Fund

EU27: current members of the EU. EU15: members of the EU

Department of Drug Supply and Medical Equipment
Department of State Sanitary-Epidemiological Surveillance
Republican Centre for Health Promotion
Centre for Health System Development

PARLIAMENT

Health committee of the Supreme Council of Kyrgyzstan, a unicameral parliament

PROFESSIONAL ASSOCIATIONS

Associations of physicians, pharmacists, nurses and cardiologists
Association of Family Group Practices
Hospitals' Association

ACADEMIC INSTITUTIONS

Kyrgyz State Medical Academy

NONGOVERNMENTAL ORGANIZATIONS

Medical Accreditation Committee

REGIONAL ADMINISTRATION

7 oblast state administrations and 2 city administrations (Bishkek and Osh city) and their respective coordination committees (comprising representatives of different sectors and at different levels)
40 rayon administrations

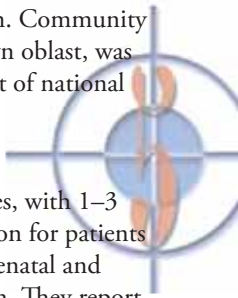
How are services provided?

Public providers provide most services. Local state administrations own health facilities providing primary and secondary care and are in charge of health care in their respective territories.

before 1 May 2004. CIS8: the 8 countries covered in this book.

PUBLIC HEALTH

The sanitary-epidemiological services provide public health services and are responsible for health protection at the national, oblast, city and rayon levels. There are also anti-plague and disinfection stations. The Republican Centre for Health Promotion, city health promotion centres in Bishkek and Osh, oblast health promotion centres and health promotion units at the rayon level are responsible for health promotion. Community health promotion has initially been piloted in Naryn oblast, was gradually rolled out to other oblasts and is now part of national policy.



PRIMARY CARE

Feldsher-midwifery posts and family group practices, with 1–3 staff members each, are the first point of consultation for patients in rural areas. They provide very basic curative, antenatal and postnatal care, immunization and health promotion. They report to the family group practices and are more and more being replaced by these practices, which were gradually introduced throughout the whole country since 1995. In the family group practices, at least one physician, nurses and midwives provide integrated primary care services to a whole family. These practices are expected to act as gatekeepers, and patients circumventing the referral must pay higher co-payments. Before independence, all primary care providers were specialists, but they have gradually been retrained to become family physicians. In cities, primary care is available in general and specialized polyclinics as well as city hospitals and maternity houses.

Family medicine centres are the largest outpatient health facilities. Mostly in cities but not solely, there is at least one family medicine centre per rayon comprising 15–20 specialists and combining primary and secondary outpatient care. Every rayon has a family medicine centre. Services include diagnostics, care for children, minor surgery, family planning, obstetric care, perinatal care, first aid, pharmaceutical prescriptions, rehabilitation, home visits and disease prevention and health promotion.

EU27: current members of the EU. EU15: members of the EU

SECONDARY AND TERTIARY CARE

Specialized outpatient facilities provide secondary care, including family medicine centres and general hospitals. Rural district hospitals provide inpatient care and, in cities and rayons, territorial (city and rayon) hospitals, rural district hospitals, city children's hospitals, maternity houses and oblast merged hospitals. Health facilities provide tertiary care at the national level and specialized dispensaries and hospitals at the subnational levels. Republican health facilities also act as teaching or research hospitals. Tertiary care facilities can render specialized outpatient and general and specialized hospital care, and secondary facilities can render primary and specialized outpatient care. Inpatient care differs between urban and rural locations.

PUBLIC/PRIVATE MIX

The role of the private sector is still relatively small. It started to develop since the 1990s, first with pharmacies and later with ambulatory care and dental care. The number of licences for private medical practice has been increasing, but very few people use it. Private health facilities can bid for contracts from the public sector and can thereby provide services under the benefit package defined by the state. This mainly happens in relation to drug supply. Most of the private services are provided in large cities. They work on the basis of profit and fees for services. Of the total number of private health facilities, less than 10% provide inpatient services. Private services mostly serve people with higher income.

Points to remember *service provision*

- During the past decade, the primary care sector has undergone massi e reorganization, ith family group practices becoming the point of first entry and the predominant provider of primary care ser ices.
- There is a notable rural–urban imbalance of facilities pro iding secondary and tertiary care. The concentration of facilities in Bish e is ell abo e that in the rest of the country.
- Ambulance ser ices need to be modernized and better funded.

before 1 May 2004. CIS8: the 8 countries covered in this book.

What resources are available?

HUMAN RESOURCES FOR HEALTH

The uneven distribution of human resources is a major problem in Kyrgyzstan's health system. In general, the northern regions and the cities are better staffed than the southern regions and the rural areas. There is an excess of physicians in cities and a shortage in villages and remote areas, in accordance with the concentration of health facilities. Salaries are low and not paid regularly, which has led to brain drain to the private sector and other sectors of the economy, thus leaving the health system with less qualified and capable staff.

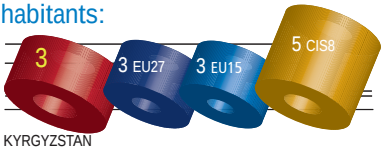
HEALTH PROFESSIONALS (per 100 000, 2006)

Physicians	246	*EU27: 315, EU15: 332, CIS8: 315*
Dentists	20	*EU27: 62, EU15: 66, CIS8: 25*
Nurses	557	*EU27: 742, EU15: 794, CIS8: 585*
Pharmacists	3	*EU27: 72, EU15: 81, CIS8: 19*
GPs	29	*EU27: 98, EU15: 103, CIS8: 31*

HOSPITALS (2006)

Hospitals per 100 000 inhabitants:

3



Hospital beds per 100 000 inhabitants: 509

EU27: 576, EU15: 564, CIS8: 559

Annual inpatient admissions per 100 inhabitants: 14

EU27: 18, EU15: 17, CIS8: 11

Average length of stay (days): 12

EU27: 9, EU15: 10, CIS8: 11

EU27: current members of the EU. EU15: members of the EU

PHARMACEUTICALS

Although the government has promoted domestic manufacturing, Kyrgyzstan still imports more than 95% of the pharmaceuticals consumed in the country, mainly from countries in the CIS. Pharmaceutical retailing has been privatized since 1996, and the number of retail pharmacies has increased substantially. Most pharmacies are located in urban areas. The regulatory authority, the Department of Drug Supply and Medical Equipment of the Ministry of Health, is responsible for registering medicines, licensing pharmaceutical activities, quality assurance of the pharmaceutical market and other activities. Rational drug use has been promoted at all levels of health care, and the national essential medicines list and the national drug formulary are regularly updated. A national medicines policy has been in place since 1998 and was last updated in 2007. The financial access to medicines for the population has improved since a value-added tax on pharmaceuticals was cancelled in 2003 and an additional drug benefit package was introduced for outpatients in 2000. However, many treatments are still not affordable for people with low income, and the quality of medicines is still a problem.

Points to remember *resources for health*

- The hospitals had excess capacity, and bed numbers ha e been reduced significantly in recent years.
- The concentration of health personnel is often t ice as high in urban areas as in rural areas.
- In most categories, the number of health professionals has declined since independence.
- Medical education has been reformed, ith training and retraining programmes in family medicine implemented, a school of health management established and the curricula of the yrgyz State Medical Academy re ised.

Source: 1

before 1 May 2004. CIS8: the 8 countries covered in this book.

Who pays for what?

Kyrgyzstan's health sector is funded through general budget revenue collected at the national and local levels, contributions to the Mandatory Health Insurance Fund, the Public Investment Programme and out-of-pocket payments.

The Mandatory Health Insurance Fund has been the single payer in the health sector since 2004. It pools funds, purchases health care services and is responsible for budgetary health funding. It receives transfers from the Social Fund and the national budget. The Social Fund collects funds from employees and farmers.

Coverage and entitlements follow a basic benefit catalogue, the State Benefit Programme, which sets the levels of co-payments for people who are insured, uninsured and insurance-exempted. Insured people also pay out of pocket, although less than uninsured people.

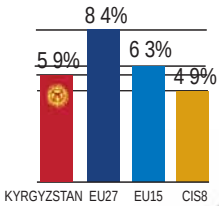
Health facilities receive funds from a unified payment system managed by the Mandatory Health Insurance Fund but have to maintain separate accounts for reporting the funds that originally derive from general revenues (state budget), compulsory insurance payroll taxes and co-payments. Co-payments are paid directly to the facilities' cash desks. Hospitals receive funds according to the number of cases treated, categorized according to diagnosis groups. Outpatient facilities and family group practices are paid per capita for each patient.

One of the key elements in the reform of health care funding in two initial pilot oblasts in 2001 and extended nationally by the end of 2004 was the centralization of funding from the rayon to the oblast level and then, in 2006, to the national level. This improved the formerly fragmented pooling of budgetary funds and improved equity in per capita spending across oblasts. A complementary reform granted more autonomy to health

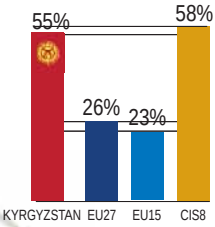
EU27: current members of the EU. EU15: members of the EU

facilities to manage their budgets. The new provider payment methods have given health facilities greater flexibility to allocate resources internally as they find relevant.

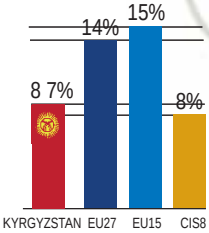
THE ECONOMIC PICTURE (2008)



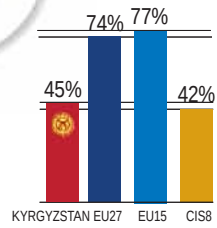
Total expenditure on health (% of GDP)



Private expenditure on health (% of total expenditure on health)



General government expenditure on health (% of total government expenditure)



General government expenditure on health (% of total health expenditure)

Private households' out-of-pocket expenditure on health 94
(% of total private health spending, 2007)

Population below poverty line 43%

before 1 May 2004. CIS8: the 8 countries covered in this book.

Points to remember *health financing*

- The concentration of health facilities in Bish e results in a massi e disparity of state resources spent in Bish e compared ith the rest of the country.
- A fragile economy has led to a decline in and lo le els of go ernment spending and high pri ate payments.
- Pri ate out of poc et payments constitute more than half of total health care funding.
- The replacement of unofficial out-of-pocket payments by official co-payments has made the system more transparent.
- Foreign aid can comprise 10% of total health expenditure, ith considerable year to year ariation.

Sources: 1, 2, 12, 19–21, 28.

How have the Kyrgyz reformed their health care system?

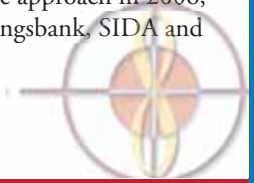
- 1992: Voluntary health insurance was made legal.
- 1993: Official user fees were allowed.
- 1994: The State Programme for a Healthy Nation, a national health policy, was adopted.
- 1995: Family group practices were introduced on a pilot basis and extended to the whole country by 2002.
- 1996–1997: Mandatory health insurance and pilot family group practices were introduced.
- 1996: The MANAS health system reform project introduced measures to improve the quality of health service delivery, promote equity and make better use of resources. Over a period of 10 years, the project was implemented in three phases: rationalizing hospital services, strengthening primary care and developing the State Benefit Package; change of provider payment schemes and start of training of managers

EU27: current members of the EU. EU15: members of the EU

and retraining of health professionals; and introducing social insurance as a complementary form of funding and introducing purchaser–provider contracts for service delivery.

- 1996: A law on preventing HIV transmission was adopted; an essential drug list was developed (revised in 1998, 2000 and 2003).
- 1999: A law on psychiatric care was adopted.
- 2000: Oblast health departments were abolished; a new health policy was developed (and ultimately adopted in 2004).
- 2001: Privatization of ownership of health facilities was legalized and the single-payer system was introduced in two oblasts.
- 2004: The introduction of the single-payer system through the Mandatory Health Insurance Fund was completed nationwide.
- 2005: The Centre for Health System Development was created to support health system governance, enhance public information about Kyrgyzstan's health system and train health professionals and policy analysts.
- 2006: A comprehensive reform strategy (Manas Taalimi) with a monitoring framework was launched for 2006–2010. A multi-donor consortium initiated a sector-wide approach to support the implementation of Manas Taalimi. This is the first sector-wide approach implemented in the WHO European Region.

Health care reforms have heavily depended on external support. The main donors that have been particularly active in supporting the health reform process have been DFID, the Swiss Agency for Development and Cooperation, USAID, WHO and the World Bank. With the initiation of the sector-wide approach in 2006, this group grew to include KfW Entwicklungsbank, SIDA and UNICEF.



before 1 May 2004. CIS8: the 8 countries covered in this book.

Points to remember

health reforms

- Financial reforms ha e focused mainly on creating incenti es for efficiency, equity and transparency.
- Much has been achie ed ith the step ise approach to health reform, ith testing in pilot regions before expansion to the national scale.
- yrgyzstan has effecti ely coordinated national and external donor support for health reforms and has increasingly relied for this purpose on analysis and e idence on the effects of their reforms.
- Since independence, the country has been a regional leader in health system reform.

What is one of the things the Kyrgyz have learned by doing?

GAINING PUBLIC SUPPORT FOR THE FUNDING REFORM

After formal co-payments were introduced in Issyk-Kul and Chui oblasts in 2001, patients discharged from hospital were surveyed within a collaborative health policy project between the Ministry of Health, the WHO Regional Office for Europe and DFID. The survey focused on questions of formal and informal payments in hospitals and people's perceptions. The survey found that informal payments declined where co-payments were introduced. In addition, both patients and doctors preferred co-payment to informal payment. This finding helped the Ministry of Health to decide to extend the co-payment policy in other parts of the country and helped the Ministry to advocate for the policy with evidence among anti-reform groups.

EU27: current members of the EU. EU15: members of the EU

What has the Regional Office been doing in Kyrgyzstan?

The WHO Country Office in Kyrgyzstan opened in Bishkek in 1992. In 2006–2007, the Regional Office supported Kyrgyzstan in:

- policy analysis in funding and human resources, policy implementation in pharmaceuticals and technical training and development in national health accounting;
- integrating health promotion and health protection with the active involvement of the population;
- improving reproductive health, maternal and child health and adolescent health; and
- controlling HIV, tuberculosis and malaria.

In 2008–2009, the Regional Office is supporting Kyrgyzstan in:

- improving health system stewardship and funding;
- strengthening the efficiency, quality and relevance of personal health services;
- creating a sustainable public health service;
- improving the ability of the health system to respond to emergency situations; and
- improving human resource policy.

before 1 May 2004. CIS8: the 8 countries covered in this book.

OTHER SOURCES OF INFORMATION ON KYRGYZSTAN

Bishkek Territorial Department of the Mandatory Health Insurance Fund http://bishkek.foms.med.kg

Centre for Health System Development
http://chsd.studionew.com/index.php

Department of Drug Supply and Medical Equipment
http://www.pharm.med.kg

Eurasianet Kyrgyzstan
http://www.eurasianet.org/resource/kyrgyzstan/index.shtml

Global Fund to Fight AIDS, Tuberculosis and Malaria (country web site) http://www.theglobalfund.org/programs/countrysite.aspx?countryid=KGZ

Government of Kyrgyzstan http://www.gov.kg

Kyrgyz State Medical Academy http://kgma.to.kg

Mandatory Health Insurance Fund http://foms.med.kg/eng

Ministry of Health http://www.med.kg

OSCE Project Coordinator in Bishkek http://www.osce.org/bishkek

Soros Foundation – Kyrgyzstan
http://www.soros.org/about/foundations/kyrgyzstan

UNAIDS (country web site)
http://www.unaids.org/en/Regions_Countries/Countries/kyrgyzstan.asp

UNDP (country web site) http://www.undp.kg

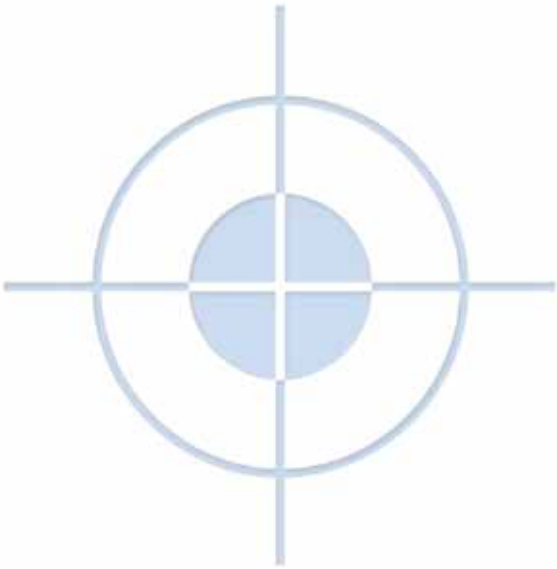
UNFPA (country web site) http://kyrgyzstan.unfpa.org/stronger.htm

UNICEF (country web site)
http://www.unicef.org/kyrgyzstan/health.html

WHO (country web site) http://www.who.int/countries/kgz/en

World Bank Mission in Kyrgyzstan http://www.worldbank.org.kg

EU27: current members of the EU. EU15: members of the EU



before 1 May 2004. CIS8: the 8 countries covered in this book.

TAJIKISTAN

ТОДЖИКИСТОН

AREA (km²)	143 100 Twice the size of Ireland; 3% of the CIS8 area ***EU27: 4.3 million, EU15: 3.2 million, CIS8: 4.2 million***
POPULATION (2007)	6.7 million Slightly less than Switzerland, about 1% of the EU27 population and 9% of the CIS8 population ***EU27: 490 million, EU15: 387 million, CIS8: 75 million***
THE PEOPLE	Tajik 80%, Uzbek 15%, Russian 1%, Kyrgyz 1%, other 3%

EU27: current members of the EU. EU15: members of the EU

LANGUAGE	Tajik is the official language; Russian is widely used in government and business
FORM OF GOVERNMENT	Presidential Republic
RELIGIONS	Muslim 90% (85% Sunni and 5% Shia Muslim (Ismaili)), other 10%
INDEPENDENCE	1991
GDP PER CAPITA (2008)	US$ 614 2% of the EU27 average and 17% of the CIS8 average ***EU27: US$ 36 000, EU15: US$ 51 000, CIS8: US$ 3570*** US$ 1780 in purchasing power parity ***EU27: US$ 30 275, EU15: 38 600, CIS8: US$ 5950***
REGIONS, DISTRICTS AND LOCAL COUNCILS	Two oblasts, Dushanbe city, districts of the Region of Republican Subordination and one autonomous oblast
CURRENCY	Somoni 1 Somoni = US$ 0.261(2009) US$ 1 = 3.83 Somoni
HUMAN DEVELOPMENT INDEX (2008)	0.673
UNEMPLOYMENT RATE (2008)	2.4% ***EU27: 8.5%, EU15: 6.3%, CIS8: 6.5%***
MEMBER OF	IMF, OSCE, United Nations, WHO, World Bank, WTO (observer)

before 1 May 2004. CIS8: the 8 countries covered in this book. *Sources:* 1–5, 8, 27.

HEALTH
ТАНДУРУСТИ

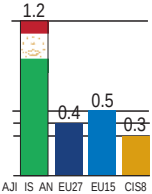
THE 10 HEALTH QUESTIONS

What are the demographic essentials for Tajiks?

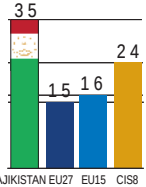
POPULATION PROFILE

Sex ratio (2006)	0.96 males per female	
Urban (2003)	24%	*EU27: 74%, EU15: 77%, CIS8: 64%*
Age structure (2005)	0–14 years 36%	*EU27: 16%, EU15: 16%, CIS8: 29%*
	≥65 years 4.4%	*EU27: 17%, EU15: 17%, CIS8: 7%*
Dependency ratio (2004)	62%	*EU27: 49%, EU15: 50%, CIS8: 58%*

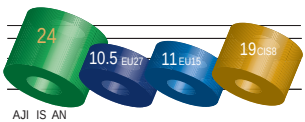
POPULATION DYNAMICS (2006)



Annual growth rate (%)

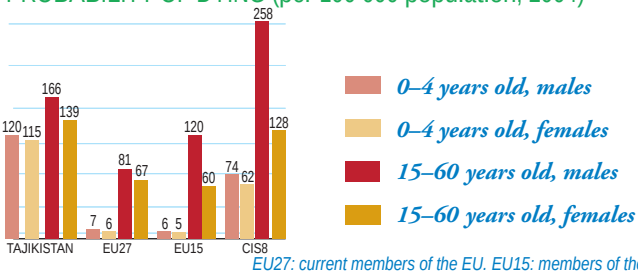


Fertility rate (children born per woman)



Birth rate (live births per 1000 population)

PROBABILITY OF DYING (per 100 000 population, 2004)



EU27: current members of the EU. EU15: members of the EU

LIFE EXPECTANCY AT BIRTH (years, 2004)

Total population	63	*EU27: 78, EU15: 79, CIS8: 68*
Males	62	*EU27: 75, EU15: 76, CIS8: 64*
Females	64	*EU27: 81, EU15: 82, CIS8: 72*

HEALTHY LIFE EXPECTANCY (2002)

	Healthy life expectancy (years)					Total life expectancy lost (%)	
	At birth			At age 60 years			
	Total	Males	Females	Males	Females	Males	Females
Taji istan	55	53	56	9.5	11	13	15
EU27	69	67	71	15	18	9	11
EU15	71	69	73	15	18	9	11
CIS8	58	56	60	10	13	12	14

Points to remember *demographic trends*

During the past decade

- The population li ing in rural areas has increased, and the proportion is the highest in the region.
- Fertility and birth rates are high, explaining population gro th.
- Infant mortality is high, and the death rate for children 0–4 years of age is ery high.
- The maternal mortality rate is the highest in the region.
- Since males ha e a relati ely high life expectancy, ariation in life expectancy by sex is the smallest in the WHO European Region.
- Taji istan has a ery young population – 40% are younger than 15 years of age.
- Migration has affected the demographic profile of the country: an estimated 800 000 people ha e emigrated since independence.
- The number of immigrants is increasing.

Sources: 1–8, 17, 22.

What do the Tajiks suffer from?

CARDIOVASCULAR DISEASES

- The leading cause of death: 37% of the total deaths (2003).

before 1 May 2004. CIS8: the 8 countries covered in this book.

- Within this group, the major killers are as follows.
  - Diseases of the circulatory system (2005): 561 deaths per 100 000. ***EU27: 273, EU15: 214, CIS8: 684***
  - Ischaemic heart diseases (2006): 221 deaths per 100 000, causing 6% of the disease burden.

  - Cerebrovascular diseases (2005): 100 deaths per 100 000, causing 6% of the disease burden and 19% of all deaths.
  - High blood pressure causes an estimated 5% of deaths among men and 7% of deaths among women (2003).

CANCER (MALIGNANT NEOPLASMS)

- Cancer causes 73 deaths per 100 000 population (2005). ***EU27: 180, EU15: 170, CIS8: 110***
- There are 31 new cases of cancer per 100 000 per year (2006). ***EU27: 460, EU15: 475, CIS8: 110***
- New cases per 100 000 per year (2006): cervical cancer: 6 (***CIS8: 10***); breast cancer: 7(***CIS8: 16***); and lung cancer: 2 (***EU27: 54, EU15: 54, CIS8: 13***).

RESPIRATORY DISEASES

- Chronic obstructive pulmonary disease causes 2% of all deaths and 2% of the disease burden (2002).
- Respiratory diseases cause 9% of the total deaths (2002).

DIABETES

- The prevalence of diabetes is 0.2% (2006), but registration may be incomplete. Diabetes causes 23 deaths per 100 000 (2005). ***EU27: 14, EU15: 14, CIS8: 25***

MENTAL HEALTH

Per 100 000 population per year:

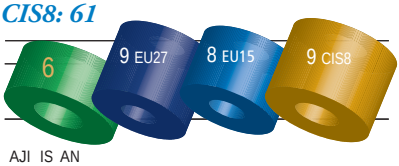
- New cases of mental disorders (2006): 25. ***CIS8: 100***
- Suicide or death from self-inflicted injuries (2005): 3.5. ***EU27: 11, EU15: 10, CIS8: 8***

EU27: current members of the EU. EU15: members of the EU

- New cases of alcoholic psychosis (2006): 0.3. ***CIS8: 43***

UNINTENTIONAL INJURIES

- They cause 33 deaths per 100 000 per year (2005). ***EU27: 42, EU15: 36, CIS8: 61***
- Injuries from road crashes are responsible for 6 deaths per 100 000 (2005).

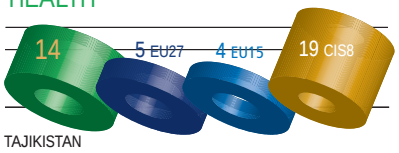


INFECTIOUS AND PARASITIC DISEASES

- Infectious diseases cause about 4% of all deaths (2003).
- The incidence of tuberculosis infection is high: 81 new cases per 100 000 per year (2006). ***EU27: 17, EU15: 10, CIS8: 92***
- New cases of malaria increased to 308 per 100 000 per year in 2000 but decreased to 10 per 100 000 in 2007.
- New cases of HIV infection (2006): 3 per 100 000. ***EU27: 6, EU15: 6, CIS8: 5***
- Sexually transmitted infections (per 100 000 per year):
  - New cases of syphilis (2007): 8.4. ***EU27 (2007): 4, EU15 (2004): 3, CIS8 (last available year): 14***
  - New cases of gonococcal infection (2007): 10.5. ***EU27 (2007): 8, EU15 (2006): 9, CIS8 (last available year): 21***

CHILD AND ADOLESCENT HEALTH

- Infant mortality (2005): 14 deaths per 1000 live births.
- Maternal mortality: 49 per 100 000 live births. UNFPA/UNICEF estimate an even higher maternal mortality ratio of 120 per 100 000 live births, the highest in the region.
- DTP3 immunization coverage (2006): 96%. ***EU27: 95%, EU15: 95%, CIS8: 94%***



before 1 May 2004. CIS8: the 8 countries covered in this book.

- Death rate of children 0–5 years old from diarrhoea (2005): 59 per 100 000, which is very high.
  EU27: 0.6, EU15: 0.3, CIS8: 37

Estimates of infant and maternal mortality in Tajikistan vary significantly according to source and method.

TOP 10 CAUSES OF DEATH IN TAJIKISTAN (2003)

Cause	Total deaths (%)
1. Ischaemic heart disease	21
2. Hypertensi e heart disease	12
3. Lo er respiratory infections	10
4. Perinatal conditions	6
5. Cerebro ascular disease	6
6. Diarrhoeal diseases	4
7. Cirrhosis of the li er	2
8. Tuberculosis	2
9. Meningitis	2
10. Chronic obstructi e pulmonary disease	2

DISEASE BURDEN IN TAJIKISTAN, CIS8 AND THE EU (2002)

Cause	Share of disease burden (%)			
	Tajikistan	CIS8	EU27	EU15
Cardio ascular diseases	19	22	14	12
Neuropsychiatric disorders	14	16	30	32
Unintentional injuries	6	8	8	7
Infectious and parasitic diseases	11	7	2	2
Perinatal conditions	7	5	NA	NA
Digesti e diseases	5	6	5	4
Respiratory infections	8	6	NA	NA
Respiratory diseases	4	4	6	7
Cancer (malignant neoplasms)	4	6	13	13
Sensory organ disorders	4	4	4	4
Total noncommunicable diseases	80	82	87	84
Total communicable diseases	11	7	2	2
Total injuries	9	11	11	10

NA not a ailable.

EU27: current members of the EU. EU15: members of the EU

Points to remember *health status*

- The first years of independence were marked by a substantial deterioration of health status, ith a rise in communicable diseases such as tuberculosis, malaria and typhus.
- Taji istan has among the highest death rates among children from diarrhoeal diseases and maternal death rates in the WHO European Region.
- Acute respiratory infections, diarrhoea and prenatal conditions are the main registered causes of infant mortality.
- Infectious and parasitic diseases, cardio ascular diseases and mental disorders account for the highest burden of disease among both sexes.
- The pre alence of noncommunicable diseases differs some hat compared ith many other countries in the WHO European Region, ith respiratory and digesti e diseases, including li er cirrhosis, particularly pre alent.

Sources: 1, 2, 5, 8, 9.

Where do the risks lie?

SMOKING

- Smoking accounts for 2% of the disease burden and 3% of all deaths (2002).
- It accounts for 371 deaths per 100 000 (2005).

EU27: 240, EU15: 200, CIS8: 622

ALCOHOL CONSUMPTION

- Total recorded alcohol consumption is low at 0.3 litres per person per year (2003) but increasing.
  EU27: 9.0, EU15: 9.4, CIS8: 1.5
- Alcohol is a major risk factor among men, causing 5% of the overall disease burden and 7% among men (2003).
  EU27: 9.0, EU15: 9.4, CIS8: 1.5
- Alcohol-related causes (2005): 79 deaths per 100 000.
  EU27: 67, EU15: 58, CIS8: 124

before 1 May 2004. CIS8: the 8 countries covered in this book.

ILLE AL RU USE

- Cannabis is the most frequently used illicit drug: 3.4% of the population 15–65 years old (1998).
- Prevalence of opiate abuse (2006): 0.5% (15–65 years old).
- First admissions to drug treatment centres (2006): 9 per 100 000 per year. ***EU27: 48, CIS8: 40***
- The increased trafficking of drugs from Afghanistan is a key factor for increasing domestic drug use and is linked to 30–50% of Tajikistan's economic activity.

BESI

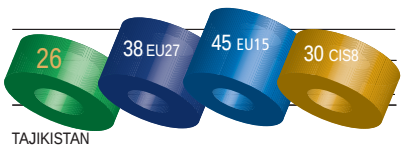
- Prevalence (2006): 3% of men and 10% of women.
- High body mass index is associated with 14% of all deaths and accounts for an estimated 5% of the disease burden (2002).
- Physical inactivity is associated with 5% of deaths (2002).

B RNE IN EC I NS

- Salmonellosis (2006): 0.7 cases reported per 100 000. ***EU27: 35, EU15: 27, CIS8: 7***

CCU A I NAL EAL

- New cases of occupation-related disease (2000): 26 per 100 000.



- Injured in work-related accidents (2006): 2 per 100 000. ***EU27 (2006): 905, EU15 (2005): 1054, CIS8 (last available): 9***
- Deaths in work-related accidents (1991): 0.4 per 100 000.

Points to remember *risk factors*

- Alcohol consumption is still relati ely lo but is reported to be increasing, as is the use of illegal drugs.

Sources: 1, 10, 11.

EU27: current members of the EU. EU15: members of the EU

Who is who in the Tajik public health sector?

PUBLIC ADMINISTRATION

Ministry of Health

INSTITUTIONS UNDER THE HEALTH MINISTRY

- National Centre for Health Promotion
- National HIV/AIDS Centre
- National Scientific Blood Centre
- National Reproductive Health Centre
- National Tropical Diseases Centre
- National Nutrition Centre
- State Scientific Centre for Drug Expertise
- State Sanitary-Epidemiological Surveillance Centre (with inspection authority)
- National Tuberculosis Centre
- Republican Medical Statistics Centre
- National Integrated Management of Childhood Diseases Centre
- National Centre for Immunoprophylaxis
- National Centre for Sexually Transmitted Infections
- National Centre for Endocrinology
- National Drug Procurement Agency

Structural subdivisions for the management of local health care departments (within khukumats), Gorno-Badakhshan Autonomous Oblast, Khatlon and Sogd oblasts and Dushanbe

PROFESSIONAL ASSOCIATIONS

- Physician and other health professional associations with limited regulatory influence

ACADEMIC INSTITUTIONS

- Tajik State Medical University
- Tajik Postgraduate Institute

before 1 May 2004. CIS8: the 8 countries covered in this book.

Scientific and Research Institute of Obstetrics and Paediatrics
Institute of Preventive Medicine

REGIONAL ADMINISTRATION

Beyond the republican level, health care management is organized on three levels: health departments within oblasts and Dushanbe city executive authorities (khukumats); central, rayon or city hospitals that also perform the functions of rayon or city health care departments; and jamoat (village) administrations responsible for the peripheral primary health care level.

How are services provided?

PUBLIC HEALTH

Public health services are provided by the sanitary-epidemiological services, Institute of Preventive Medicine and the National Healthy Lifestyle Centre. The sanitary-epidemiological services are responsible for disease prevention, monitoring and control of infectious diseases, occupational health, food safety and environmental health.

PRIMARY CARE

The first point of contact for people needing health care in rural areas is at the medical houses (former feldsher-midwife posts), staffed with one or two nurses, a midwife and a feldsher. Medical houses provide immunization, basic first aid, home visits, basic prenatal care and medical referrals – although there is also direct access to physicians and rayon hospitals. Rural clinics with about 4–5 physicians, usually specialists, provide the next level of primary care, including diagnostics and basic treatment and surgery. Polyclinics in towns are either free-standing or associated with a hospital and offer preventive, diagnostic and rehabilitative services.

EU27: current members of the EU. EU15: members of the EU

Family practice is at the core of a new primary care strategy that sets out the guidelines for disease management, retraining of physician specialists to become family practitioners, a scheme for training nurses as family nurses and modernization and rationalization of the primary care infrastructure.

SECONDARY AND TERTIARY CARE

Small rural hospitals with 25–75 beds offer basic nursing care and some medical and obstetric services. Numerous specialist hospitals provide care to specific population groups (children, pregnant women etc.) or patients. The district or rayon hospitals deliver basic secondary care and regional (oblast or city) hospitals deliver specialized secondary care. National hospitals provide more advanced care and usually also serve as teaching and research hospitals.

PUBLIC/PRIVATE MIX

The government has progressively legalized privatization of health facilities by ownership, has introduced private sources to cover health expenditure and has also allowed private provision of services, in full- or part-time conditions. However, the development of the private sector in health care delivery has been slow and mostly confined to pharmacies and dentists. Although growing, the number of private health care providers by ownership is still low and their services are generally limited to consultations, diagnostic services and ambulatory treatment. Many physicians working in public service supplement their state earnings with private (informal) payments.

Points to remember *service provision*

- Citizens access and use ser ices according to their income.
- The health care system is traditionally centred around hospitals, but current plans intend to strengthen primary care ser ices.


Tajikistan


Turkmenistan


Uzbekistan

before 1 May 2004. CIS8: the 8 countries covered in this book.

What resources are available?

HUMAN RESOURCES FOR HEALTH

Tajikistan has fewer health care professionals per capita than other countries in central Asia. Physicians are mainly specialized, but more and more are being retrained to become family physicians. The intention is to also upgrade and expand nurse training. Feldshers' training was already upgraded in 1996 to a four-year course in medical college. These physician assistants work mainly in rural areas and, given the scarcity of physicians in rural areas, are an important group of health professionals.

Health professionals are among the lowest-paid workers. In 2003, the wage was only half of the average wage and one fifth of that received by equally qualified professionals in other sectors. Low pay has contributed to low status, and attracting professionals in engaging to improve the quality of services has proven difficult.

HEALTH PROFESSIONALS (per 100 000, 2006)

Physicians	201	*EU27: 315, EU15: 332, CIS8: 315*
Dentists	15	*EU27: 62, EU15: 66, CIS8: 25*
Nurses	447	*EU27: 742, EU15: 794, CIS8: 585*
Pharmacists	10	*EU27: 72, EU15: 81, CIS8: 19*
GPs	21	*EU27: 98, EU15: 103, CIS8: 31*

HOSPITALS (2006)

Hospitals per 100 000 inhabitants: 5

EU27: 3, EU15: 3, CIS8: 5

Hospital beds per 100 000 inhabitants: 612

EU27: current members of the EU. EU15: members of the EU

Inpatient admissions per 100 inhabitants: 11
EU27: 18, EU15: 17, CIS8: 11
Average length of stay (days): 12
EU27: 9, EU15: 10, CIS8: 11

PHARMACEUTICALS

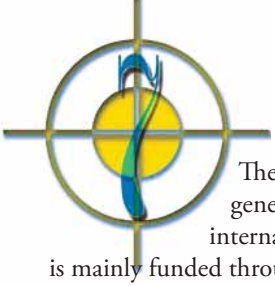
Except for some herbal products, nearly all pharmaceuticals are imported. Drug supply is irregular, and funding largely relies on donors. Patients cover a substantial share of the costs for pharmaceuticals out of pocket. Another problem is that numerous unregistered drugs are on the market. Although Tajikistan adopted an essential list of drugs in 1994 that is revised annually, has a national drug formulary and has endorsed a national drug policy that is monitored regularly, pharmaceutical production, distribution and supply can further be improved.

Points to remember *resources for health*

- The number of physicians has decreased substantially in the past 15 years due to brain drain to other sectors and migration.
- The urban–rural distribution of health professionals is une en.
- Most health professionals are still employed by the go ernment and ha e ery lo ages.
- Hospitals ha e been subject to rationalization, ith substantial closure of hospital beds and increasing occupancy of the remaining beds.
- Hospital admissions ha e hal ed and bed capacity has been substantially reduced during the past decade, but the a erage length of stay remains high.
- There are se ere shortages of drugs and medical supplies.

Source: 1

before 1 May 2004. CIS8: the 8 countries covered in this book.



Who pays for what?

There are three sources of revenue: the general budget, out-of-pocket payments and international donations. The general budget is mainly funded through income taxes and is determined by the Ministry of Finance, which allocates about 23% of public health expenditure to the Ministry of Health for state health programmes and for health facilities managed at the republican level. Health administrations of oblasts, cities and rayons are redistributed funds as local budget shares, which constitute 77% of total public health expenditure, from the Ministry of Finance. Official user charges are recorded at only 1% of total health expenditure but are likely to be higher. Together with informal payments, out-of-pocket payments have increased to about 70% of all health expenditure. Donor funding is estimated to contribute about 13% of total health funding: 35% for inpatient drugs, 22% for hospital capital and services, 25% for outpatient services and 14% of funding for public health services.

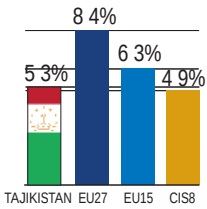
Health care providers are mainly funded from oblast and rayon budgets based on expenditure for certain items in previous years, such as number of beds and staff (line items). A per capita resource allocation model is being tested on a pilot basis. Hospitals traditionally take the largest share (more than two thirds) of the state budget for health expenditure, whereas primary care and public health services receive substantially less. The government committed to redistribute expenditure in 2008, to reach a proportion of about 70% of expenditure on primary care and 30% on hospitals.

Entitlement to state-funded services is regulated in a state-guaranteed basic benefit catalogue that defines the types and volumes of services under state funding and regulates co-payments. Certain population groups are exempted from co-payments, such as veterans of the Second World War, victims

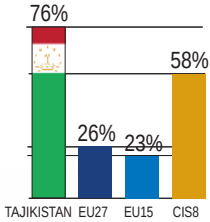
EU27: current members of the EU. EU15: members of the EU

of the Chernobyl nuclear power plant accident, children up to five years of age and pregnant women. People with tuberculosis, mental disorders, cancer, bronchial asthma, diabetes or systemic blood diseases are also exempted from official co-payments. Informal out-of pocket payments, however, exist for any health care services.

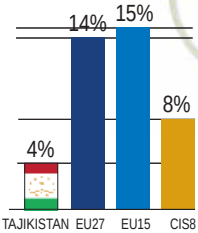
THE ECONOMIC PICTURE (2008)



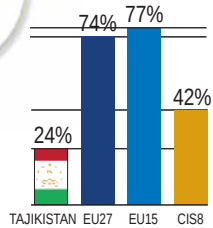
Total expenditure on health (% of GDP)



Private expenditure on health (% of total expenditure on health)



General government expenditure on health (% of total government expenditure)



General government expenditure on health (% of total health expenditure)

Private households' out-of-pocket expenditure on health 97
(% of total private health spending, 2007)

Population below poverty line 75%

before 1 May 2004. CIS8: the 8 countries covered in this book.

Points to remember

health financing

- Although it has mo ed to internal stability and economic gro th, Taji istan remains one of the poorest countries in the WHO European Region and the orld.
- Most of the population is seriously impo erished, ith more than 70% in absolute po erty.[1]
- Income ine uality is considerable, ith the highest income uintile recei ing 45% of income and the lo est income uintile recei ing only 7%.
- Go ernment health expenditure has declined substantially since independence.
- Out of poc et payments ha e gro n rapidly as a share of health care funding in Taji istan.

[1] The po erty line is the minimum income deemed necessary to achie e an ade uate standard of living. The absolute poverty line is a fixed amount set by taking into account income and consumed goods and ser ices and is a standard threshold.

Sources: 1, 2, 8, 11, 23, 28.

How have the Tajiks reformed their health care system?

- 1994: An essential drug list was adopted.
- 1997: Private medical practice was legalized.
- 1998: A national drug policy was adopted.
- 1999: The Faculty of Family Medicine was opened.
- 2002: Two strategic documents for the reform of Tajikistan's health system were launched.
- 2004: Some policy-making authority was delegated to the oblast administrations; the National Drug Procurement Agency was established to ensure quality control of imported drugs.
- July 2005: A state-guaranteed benefit package of services and official co-payments for pharmaceuticals and health services

EU27: current members of the EU. EU15: members of the EU

were introduced countrywide, but implementation was suspended shortly thereafter.
- June 2007: The benefit package was reintroduced in four pilot regions, and capitation payment methods in primary care were introduced in eight pilot regions.

The largest international donors have been the Global Fund to Fight AIDS, Tuberculosis and Malaria, EU (European Commission, including the Directorate-General for Humanitarian Aid), USAID and USDA, Islamic Development Bank, Organization of the Petroleum Exporting Countries, the World Bank, the Asian Development Bank, United Nations and the Swiss Agency for Development and Cooperation.

Points to remember

health reforms

- The pace of reforms has been slo since independence due to the ci il ar, and health needs to be put higher on the go ernment priority agenda.
- During the past 18 years, donor support has co ered operating costs for health ser ices and health reform in the form of humanitarian assistance, de elopment programmes, grants and loans.

What is one of the things the Tajiks have learned by doing?

PRESERVE AND TRAIN STAFF

The health system has traditionally been hospital-centred partly owing to the fact that hospital chief physicians administer other health services in the hospitals' catchment areas and thereby influence resource allocation decisions towards inpatient care. In 2000, the Ministry of Health committed to

before 1 May 2004. CIS8: the 8 countries covered in this book.

restructuring primary health care and other services with the technical and financial support of WHO, the World Bank and the Asian Development Bank. This entailed strengthening primary and family health care development; rationalizing and modernizing health facilities; introducing per capita funding; and strengthening the training and capacity of health professionals. The human resources component of the project was vital, as it introduced earlier retraining schemes of physicians from specialists to general practitioners and upgraded training schemes for nurses and feldshers towards primary care and family medicine. It also re-emphasized the opening of the Faculty of Family Medicine in 1999.

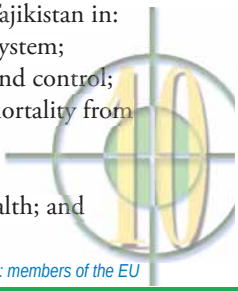
What has the Regional Office been doing in Tajikistan?

The WHO Country Office in Tajikistan opened in Dushanbe in 1992. In 2006–2007, the Regional Office supported Tajikistan in:

- strengthening the health system;
- protecting maternal, child and adolescent health;
- communicable disease surveillance and control;
- environmental safety, in particular water safety; and
- disaster preparedness and response.

In 2007–2008, the Regional Office is supporting Tajikistan in:

- strengthening the core functions of the health system;
- improving communicable disease surveillance and control;
- reducing morbidity, disability and premature mortality from noncommunicable diseases;
- improving diet and food safety;
- improving mother and child and adolescent health; and
- disaster preparedness and response.



EU27: current members of the EU. EU15: members of the EU

OTHER SOURCES OF INFORMATION ON TAJIKISTAN

Eurasianet Tajikistan http://www.eurasianet.org/resource/tajikistan/index.shtml

Global Fund to Fight AIDS, Tuberculosis and Malaria (country web site) http://www.theglobalfund.org/programs/countrysite.aspx?countryid=TJK

Government of Tajikistan http://www.tjus.org/Government.htm

Ministry of Health http://www.health.tj

Open Society Institute Assistance Foundation – Tajikistan http://www.soros.org/about/foundations/tajikistan

OSCE Project Coordinator in Dushanbe

http://www.osce.org/dushanbe

State Statistics Committee http://www.stat.tj

UNAIDS (country web site)
http://www.unaids.org/en/CountryResponses/Countries/tajikistan.asp

UNICEF (country web site)
http://www.unicef.org/infobycountry/Tajikistan.html

UNDP (country web site)
http://www.undp.tj
http://hdrstats.undp.org/countries/data_sheets/cty_ds_TJK.html

UNFPA (country web site)
http://tajikistan.unfpa.org/stronger.htm

WHO (country web site)
http://www.who.int/countries/tjk/en

World Bank Mission in Tajikistan http://www.worldbank.org/tj


Tajikistan


Turkmenistan


Uzbekistan

before 1 May 2004. CIS8: the 8 countries covered in this book.

TURKMENISTAN

TÜRKMENISTAN

AREA (km²)	488 000 Slightly larger than Sweden 10% of the CIS8 area ***EU27: 4.3 million, EU15: 3.2 million, CIS8: 4.2 million***
POPULATION (2007)	5.0 million About half the population of Hungary, 1% of the EU27 population and 6.5% of the CIS8 population ***EU27: 490 million, EU15: 387 million, CIS8: 75 million***
THE PEOPLE	Turkmen 85%, Uzbek 5%, Russian 4%, other 6%

EU27: current members of the EU. EU15: members of the EU

LANGUAGE	Turkmen 72%, Russian 12%, Uzbek 9%, other 7%
FORM OF GOVERNMENT	Republic
RELIGIONS	Muslim 75%, Russian Orthodox 20%, other 5%
INDEPENDENCE	1991
GDP PER CAPITA (2008)	US$ 1680 5% of the EU27 average and 47% of the CIS8 average ***EU27: US$ 36 000, EU15: US$ 51 000, CIS8: US$ 3570*** US$ 7210 in purchasing power parity ***EU27: US$ 30 275, EU15: 38 600, CIS8: US$ 5950***
REGIONS, DISTRICTS AND LOCAL COUNCILS	Five regions
CURRENCY	Manat 1 Manat = US$ 0.351 US$ 1 = 2.85 Manat (2009)
HUMAN DEVELOPMENT INDEX (2008)	0.713
UNEMPLOYMENT RATE (2008)	19% ***EU27: 8.5%, EU15: 6.3%, CIS8: 6.5%***
MEMBER OF	IMF, OSCE, United Nations, WHO, World Bank

before 1 May 2004. CIS8: the 8 countries covered in this book. *Sources:* 1–6, 27.

HEALTH

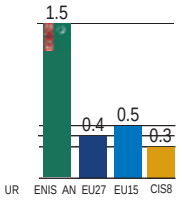
SAGLYK

THE 10 HEALTH QUESTIONS

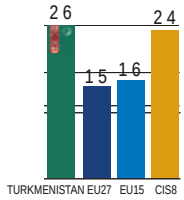
What are the demographic essentials for Turkmen?

ULA I N R ILE		
Sex ratio (2004)	0.99 males per female	
Urban (2004)	46%	*EU27: 74%, EU15: 77%, CIS8: 64%*
Age structure (1998)	0–14 years 39%	*EU27: 16%, EU15: 16%, CIS8: 29%*
	≥65 years 4%	*EU27: 17%, EU15: 17%, CIS8: 7%*
Dependency ratio (2004)	60%	*EU27: 49%, EU15: 50%, CIS8: 58%*

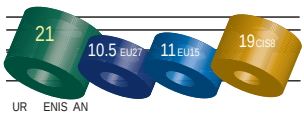
ULA I N NA ICS



Annual growth rate (%)

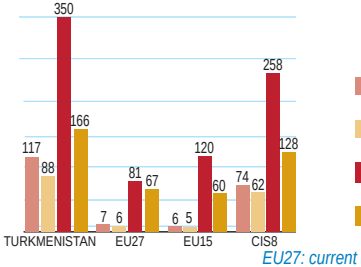


Fertility rate (children born per woman)



Birth rate (live births per 1000 population)

R BABILI IN 100 000 2004



0–4 years old, males
0–4 years old, females
15–60 years old, males
15–60 years old, females

EU27: current members of the EU. EU15: members of the EU

LIFE EXPECTANCY AT BIRTH (years, 2004)

Total population	60	*EU27: 78, EU15: 79, CIS8: 68*
Males	56	*EU27: 75, EU15: 76, CIS8: 64*
Females	65	*EU27: 81, EU15: 82, CIS8: 72*

HEALTHY LIFE EXPECTANCY (2002)

	Healthy life expectancy (years)					Total life expectancy lost (%)	
	At birth			At age 60 years			
	Total	Males	Females	Males	Females	Males	Females
Tur menistan	54	52	57	9	11	12	14
EU27	69	67	71	15	18	9	11
EU15	71	69	73	15	18	9	11
CIS8	58	56	60	10	13	12	14

Points to remember *demographic trends*

During the past decade, Tur menistan has experienced

- substantial population gro th;
- the lo est male life expectancy in the WHO European Region;
- a ery young population; and
- one of the highest birth rates in the WHO European Region.

Sources: 1–7.

What do the Turkmen suffer from?

CARDIOVASCULAR DISEASES

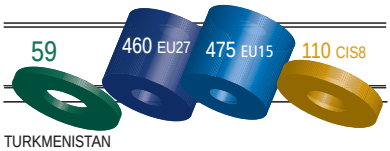
- The leading cause of death: 45% of the total deaths (2002).
- Within this group, the major killers in 1998 were:
  - Diseases of the circulatory system: 844 deaths per 100 000.
  - Ischaemic heart diseases: 440 deaths per 100 000, causing 10% of the disease burden and 28% of all deaths.

before 1 May 2004. CIS8: the 8 countries covered in this book.

– Cerebrovascular diseases: 86 deaths per 100 000, causing 5% of the disease burden.
– High blood pressure causes an estimated 6% of deaths among men and 8% of deaths among women.

CANCER (MALIGNANT NEOPLASMS)

- Cancer causes 98 deaths per 100 000 population (1998).
- There are 59 new cases of cancer per 100 000 per year (2006).



- New cases per 100 000 per year (2006): cervical cancer: 7 (***CIS8: 10***); breast cancer: 11 (***CIS8: 16***); and lung cancer: 3.8 (***EU27: 54, EU15: 54, CIS8: 13***).

DIABETES

- Prevalence of diabetes (1998): 0.1%.
- Diabetes causes 20 deaths per 100 000 population (1998).

MENTAL HEALTH

Per 100 000 population per year:

- New cases of mental disorders (2006): 86. ***CIS8: 100***
- Suicide or death from self-inflicted injuries (1998): 11.
- New cases of alcoholic psychosis (2006): 0.2. ***CIS8: 43***

UNINTENTIONAL INJURIES

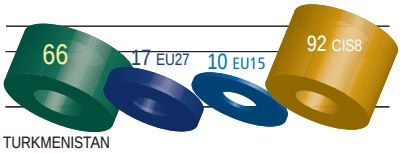
- They caused 63 deaths per 100 000 and were responsible for 5% of all deaths (1998).
- Injuries from road crashes were responsible for 8.5 deaths per 100 000 per year (1998).

INFECTIOUS AND PARASITIC DISEASES

- Infectious diseases cause 4% of all deaths (2003).

EU27: current members of the EU. EU15: members of the EU

- Tuberculosis infection (2006): 66 new cases per 100 000 per year.



- No new cases of HIV infection were officially reported in 2000–2006. ***EU27: 6, EU15: 6, CIS8 (2006): 5***
- New cases of sexually transmitted infections were reported to be low in 2002 but have increased dramatically since:
  - New cases of syphilis in 2002: 0.7 per 100 000. ***EU27 (2007): 4, EU15 (2004): 3, CIS8 (last available year): 14***
  - New cases of gonococcal infection in 2002: 5 per 100 000. ***EU27 (2007): 8, EU15 (2006): 9, CIS8 (last available year): 21***

CHILD AND ADOLESCENT HEALTH

- Infant mortality is high: 33 deaths per 1000 live births (1998).
- DTP3 immunization coverage (2005): 99%. ***EU27: 95%, EU15: 95%, CIS8: 94%***
- Death rate of children 0–5 years old from diarrhoea: 156 per 100 000 in 1998, which is exceptionally high, but more recent data are lacking. ***EU27: 0.6 (2006), EU15: 0.3 (2006), CIS8: 37 (last available)***

TOP 10 CAUSES OF DEATH IN TURKMENISTAN (2003)

Cause	Total deaths (%)
1. Ischaemic heart disease	28
2. Hypertensi e heart disease	12
3. Lo er respiratory infections	9
4. Cerebro ascular disease	5
5. Tuberculosis	4
6. Cirrhosis of the li er	3
7. Diarrhoeal diseases	3
8. Perinatal conditions	2
9. Self-inflicted injuries	1
10. Diabetes mellitus	1

before 1 May 2004. CIS8: the 8 countries covered in this book.

DISEASE BURDEN IN TURKMENISTAN, CIS8 AND THE EU (2002)

Cause	Share of disease burden (%)			
	Turkmenistan	CIS8	EU27	EU15
Cardio ascular diseases	27	22	14	12
Neuropsychiatric disorders	13	16	30	32
Unintentional injuries	8	8	8	7
Infectious and parasitic diseases	9	7	2	2
Perinatal conditions	3	5	NA	NA
Digesti e diseases	7	6	5	4
Respiratory infections	9	6	NA	NA
Respiratory diseases	3	4	6	7
Cancer (malignant neoplasms)	5	6	13	13
Sensory organ disorders	4	4	4	4
Total noncommunicable diseases	80	82	87	84
Total communicable diseases	9	7	2	2
Total injuries	11	11	11	10

NA not a ailable.

Points to remember

health status

- The death rates from infectious and parasitic diseases and from diabetes are among the highest in the WHO European Region.
- Respiratory and digesti e diseases are a gro ing problem.
- Tur menistan has a relati ely lo le el of iolent deaths compared ith neighbouring countries and the EU.
- Although official HIV statistics indicate a low level of infection, there is a potential of a gro ing spread in accordance ith an increase in unsafe sex practices and gro ing drug use.
- An estimated 55% of the people ha e access to safe drin ing ater.

Sources: 1, 5, 6, 8, 9.

EU27: current members of the EU. EU15: members of the EU

Where do the risks lie?

SMOKING

- Adult smoking prevalence: 14% of the population (regular smokers) (1990).
- Smoking accounted for 5% of the disease burden and 588 deaths per 100 000 in 1998.

ALCOHOL CONSUMPTION

- Total alcohol consumption (2003): 0.7 litres per person per year. ***EU27: 9.0, EU15: 9.4, CIS8: 1.5***
- Alcohol is a major risk factor among men, causing 6% of the overall disease burden and 9% of the disease burden among men (2002).
- Alcohol-related causes (1998): 131 deaths per 100 000.

ILLEGAL DRUG USE

- The number of registered drug users has increased substantially in the past decades as Turkmenistan is increasingly being used as a transit country for drugs trafficked out of Afghanistan.
- Annual prevalence of opiate abuse (1998): 0.3% of the population 15–65 years old.
- First admissions to drug treatment centres (1997): 65 per 100 000 per year.

OBESITY

- Prevalence (2006): 9% of men and 15% of women.
- High body mass index is associated with 16% of all deaths and 7% of the disease burden (2002).
- Physical inactivity is associated with 6% of deaths and 2.5% of the disease burden (2002).

OCCUPATIONAL HEALTH

- New cases of occupation-related disease (1992): 212 per 100 000.
- Deaths in work-related accidents (1991): 3.5 per 100 000.

before 1 May 2004. CIS8: the 8 countries covered in this book.

Sources: 1, 10, 11.

Who is who in the Turkmen public health sector?

PUBLIC ADMINISTRATION

Cabinet of Ministers
Ministry of Health and Medical Industry
State Fund for Health Development

INSTITUTIONS UNDER THE HEALTH MINISTRY

Sanitary-Epidemiological Inspectorate

PARLIAMENT

Majlis

PROFESSIONAL ASSOCIATIONS

Trade union for health professionals

ACADEMIC INSTITUTION

Turkmen State Medical Institute

REGIONAL ADMINISTRATION

Ashgabat City Health Authority and governors in each of the five regions

How are services provided?

The basic organizational structure follows the traditional model of the Soviet system, which differed in cities and urban areas. There have been some recent changes to this system as described below.

EU27: current members of the EU. EU15: members of the EU

PUBLIC HEALTH

The Sanitary-Epidemiological Inspectorate provides environmental public health services with a central unit in Ashgabat and branches at the regional and district levels. The sanitary-epidemiological branches are responsible for monitoring environmental health effects, preventing infectious diseases, occupational health and food safety. The Ministry of Health and Medical Industry is the authoritative body providing health education, and primary care facilities are supposed to provide other health promotion services.

PRIMARY CARE

Rural health centres provide the first point of contact for people needing health care in rural areas. Their staffing differs; some are staffed with feldshers, midwifes and nurses, and others are staffed with nurses and physicians, who may be specialists and/or family physicians. The centres provide immunization, basic first aid, home visits, basic prenatal care and medical referrals. Smaller rural hospitals also traditionally provide some outpatient care services, but they are increasingly being abolished or transformed into health centres. Polyclinics – which are now called urban health centres – provide primary care in towns and cities. Special facilities at the city, regional and district levels deliver emergency services.

SECONDARY AND TERTIARY CARE

Hospitals at the district, regional and city level and specialized hospitals provide secondary care. Clinical hospitals in the capital provide secondary and more complex tertiary care. Referral is required for other than emergency cases or services must be paid out of pocket when people access hospitals directly. Complex care is still provided in hospitals at the republican level. There is a chain of modern hospitals in Ashgabat and regional (velayets) capitals. The International Medical Centre opened in Ashgabat in 1998 provides a comparatively sophisticated variety of diagnostic and therapeutic services with equipment donated and bought and staff trained abroad.

before 1 May 2004. CIS8: the 8 countries covered in this book.

PUBLIC/PRIVATE MIX

The role of the private sector is small and mostly confined to dental care and pharmacies. Health centres and nearly all hospitals remain in public ownership.

Points to remember *service provision*

- Access to ser ices is better in cities than in rural and remote areas.
- Primary care settings are gradually being transformed to replace specialized ser ices ith family practice.
- Privatization in health services does not yet play a major role.
- The uality of health ser ices in both primary and secondary care re uires urgent attention.

What resources are available?

HUMAN RESOURCES FOR HEALTH

The number of health workers has declined in many areas since independence. In particular, the numbers of physicians and nurses are now critically below the level of those in the EU.

In accordance with developments in neighbouring countries, Turkmenistan has moved towards family practice. In 2005, about 11 000 health professionals are said to have explicitly been trained as family physicians, family nurses and family auxiliary staff.

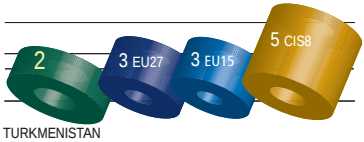
HEALTH PROFESSIONALS (per 100 000, 2006)

Physicians	249	*EU27: 315,*	*EU15: 332,*	*CIS8: 315*
Dentists	14	*EU27: 62,*	*EU15: 66,*	*CIS8: 25*
Nurses	449	*EU27: 742,*	*EU15: 794,*	*CIS8: 585*
Pharmacists	20	*EU27: 72,*	*EU15: 81,*	*CIS8: 19*

EU27: current members of the EU. EU15: members of the EU

HOSPITALS (2006)

Hospitals per 100 000 inhabitants: 2



Hospital beds per 100 000 inhabitants: 433

EU27: 576, EU15: 564, CIS8: 559

Inpatient admissions per 100 inhabitants: 14

EU27: 18, EU15: 17, CIS8: 11

Average length of stay (days): 10

EU27: 9, EU15: 10, CIS8: 11

PHARMACEUTICALS

The Ministry of Health and Medical Industry coordinates the supply and distribution of pharmaceuticals and regulates prices. There also is an informal economy in sales. Most pharmacies are state owned. Information is lacking on drug prescriptions and uptake, and there is no consumer information on the quality and safety of drugs. An essential drug list has been in place since 1997 and is regularly updated.

Points to remember *resources for health*

- There is general lac of access to health related literature and the Internet for both the general public and health professionals.
- There has been a serious shortage of qualified health professionals in urban areas but e en more so in rural areas.
- Underin estment since independence has led to serious shortages of medicines and medical e uipment and se ere deterioration of buildings, particularly in rural areas.
- Hospital beds have been significantly reduced in the past two decades.
- Improving qualifications and skills requires substantial investment and international standardization in education and training.

Source: 1

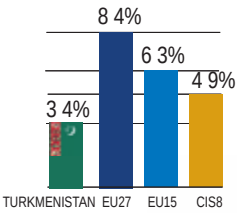
before 1 May 2004. CIS8: the 8 countries covered in this book.

Who pays for what?

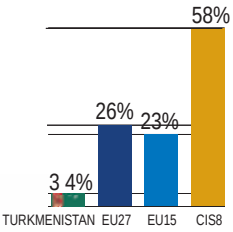
The state budget is the main source of funding and is derived from a combination of national resources and taxation levied on incomes, goods and natural resources. The government administers a voluntary health insurance scheme and contributes a small proportion of the funds. A decrease in state funding in the past two decades has been accompanied by a growing proportion of formal and informal out-of-pocket payments by service users, which have made substantial salary supplements to health professionals. A State Fund for Health Development has contributed complementary funding for pharmaceuticals, research and medical technology in the past decade. The fund generates income through various charges such as for registration, certification and penalties; donations; voluntary health insurance premiums; and others. Foreign assistance and loans play a minor role in covering operational health services expenditure.

Hospitals and health centres are reimbursed on line items such as salaries, number of beds, medicines, food, maintenance and capital repair.

THE ECONOMIC PICTURE (2008)

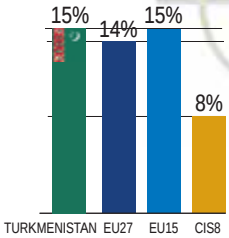


Total expenditure on health (% of GDP)

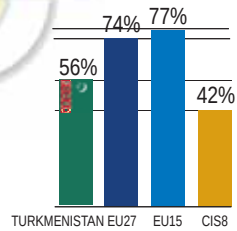


Private expenditure on health (% of total expenditure on health)

EU27: current members of the EU. EU15: members of the EU



General government expenditure on health (% of total government expenditure)



General government expenditure on health (% of total health expenditure)

Private households' out-of-pocket expenditure on health 100
(% of total private health spending, 2007)

Population below poverty line NA

Points to remember

health financing

- Public funding for health care declined in the first years after independence but has increased since.
- User fees for ser ices ere introduced step by step.
- A oluntary health insurance scheme co ers user fees for health ser ices and co payments for pharmaceuticals for insured people.

Sources: 1, 2, 12, 19, 24, 28.

How have the Turkmen reformed their health care system?

Health systems reforms in the past two decades have included the following.

- 1995: Certain population groups were exempted from user charges for using health care services.

before 1 May 2004. CIS8: the 8 countries covered in this book.

- 1996: A presidential decree ordered the iodization of salt and fortification of flour with iron; privatization of pharmacies and dental practices was allowed; a public voluntary health insurance scheme was introduced.
- 1995–2000: Measures were introduced to improve water supply and purify drinking-water.
- 1998: A comprehensive reform programme was adopted, including funding reforms, developing primary care, reducing excess hospital capacity and training personnel; the sanitary-epidemiological system and the primary care system were reformed.
- 2004: Health service user fees were introduced for an increased range of services.
- 2007: The national programme for the improvement of living conditions was adopted, with plans for improving the infrastructure, equipment and power and water supply of rural and district health institutions and ambulances and improving medical training.

Organizations active in providing health sector support to Turkmenistan include UNAIDS, UNDP, UNFPA, UNHCR, UNICEF, UNODC, WHO and the World Bank.

Points to remember

health reforms

- Health system reforms ha e mainly contained incremental measures; a more systematic approach to system reform still needs to be de eloped.
- The le el of de elopment assistance for reforming the health system in Tur menistan has been lo compared ith neighbouring countries.

Sources: 2, 24, 25.

EU27: current members of the EU. EU15: members of the EU

What is one of the things the Turkmen have learned by doing?

UNIVERSAL SALT IODIZATION

A presidential decree ordered the iodination of salt and fortification of flour with iron in 1996, and universal salt iodization was internationally certified in 2004. This has made Turkmenistan the first country in central Asia and fourth in the world to achieve optimum iodine uptake. The success of the universal salt iodization programme is benefiting other nutritional campaigns such as flour fortification, which now takes place in 17 of Turkmenistan's 18 largest mills.

What has the Regional Office been doing in Turkmenistan?

The WHO Country Office in Turkmenistan opened in Ashgabat in 1995. In 2006–2007, the Regional Office supported Turkmenistan in:

- improving maternal and child health;
- enhancing health funding;
- strengthening environment and health;
- preventing and controlling communicable diseases; and
- developing a national pharmaceutical policy.

before 1 May 2004. CIS8: the 8 countries covered in this book.

In 2008–2009, the Regional Office is supporting Turkmenistan in:

- strengthening the health system;
- improving maternal and child health;
- strengthening the surveillance and control of communicable diseases; and
- preventing and reducing poor health related to noncommunicable diseases, mental health, violence and injuries.

EU27: current members of the EU. EU15: members of the EU

OTHER SOURCES OF INFORMATION ON TURKMENISTAN

Eurasianet Turkmenistan
http://www.eurasianet.org/resource/turkmenistan/index.shtml

Global Fund to Fight AIDS, Tuberculosis and Malaria (country web site) http://www.theglobalfund.org/programs/countrysite.aspx?countryid=TKM

Government of Turkmenistan http://turkmenistan.gov.tm/_en

UNAIDS (country web site) http://www.unaids.org/en/CountryResponses/Countries/turkmenistan.asp

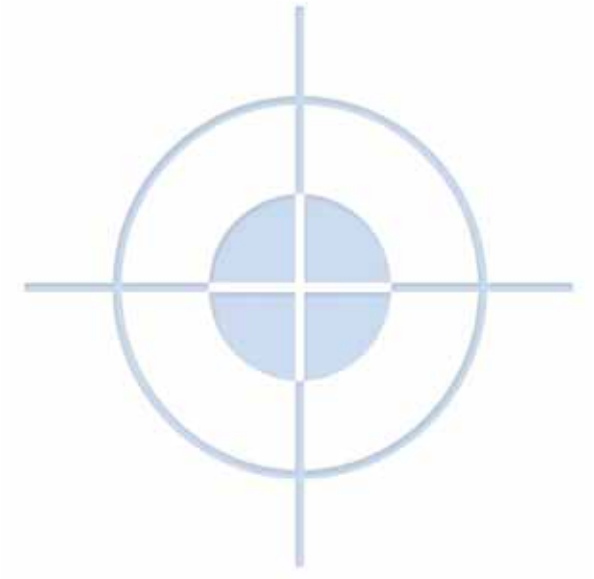
UNDP (country web site) http://www.undptkm.org

UNFPA (country web site) http://turkmenistan.unfpa.org/stronger.htm

UNICEF (country web site) http://www.unicef.org/turkmenistan

WHO (country web site) http://www.who.int/countries/tkm/en

World Bank Mission in Turkmenistan http://www.worldbank.org/tm



before 1 May 2004. CIS8: the 8 countries covered in this book.

UZBEKISTAN

O‘ZBEKISTON

AREA (km²)	447 400 About the same size as Sweden; 11% of the CIS8 area ***EU27: 4.3 million, EU15: 3.2 million, CIS8: 4.2 million***
POPULATION (2007)	27.0 million About 5 million more than Romania and 5.5% of the EU27 population ***EU27: 490 million, EU15: 387 million, CIS8: 75 million***
THE PEOPLE	Uzbek 80%, Russian 5.5%, Tajik 5%, Kazakh 3%, Karakalpak 2.5%, Tatar 1.5%, other 2.5%

EU27: current members of the EU. EU15: members of the EU

LANGUAGE	Uzbek 74%, Russian 14%, Tajik 4%, other 8%
FORM OF GOVERNMENT	Republic
RELIGIONS	Muslim 88% (mostly Sunnis), Eastern Orthodox 9%, Jews and other 3%
INDEPENDENCE	1991
GDP PER CAPITA (2008)	US$ 1030 3% of the EU27 average and 29% of the CIS8 average ***EU27: US$ 36 000, EU15: US$ 51 000, CIS8: US$ 3570*** US$ 2650 in purchasing power parity ***EU27: US$ 30 275, EU15: 38 600, CIS8: US$ 5950***
REGIONS, DISTRICTS AND LOCAL COUNCILS	12 provinces, 1 autonomous republic and 1 city
CURRENCY	Sum 1 Sum = US$ 0.00079 (in 2009) US$ 1 = 1 434 Sum
HUMAN DEVELOPMENT INDEX (2008)	0.702
UNEMPLOYMENT RATE (2008)	0.9% ***EU27: 8.5%, EU15: 6.3%, CIS8: 6.5%***
MEMBER OF	IMF, OSCE, United Nations, WHO, World Bank, WTO (observer)

before 1 May 2004. CIS8: the 8 countries covered in this book. *Sources:* 1–5, 27.

HEALTH

SOG'LIK

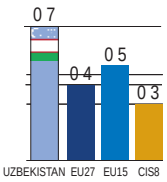
THE 10 HEALTH QUESTIONS

What are the demographic essentials for Uzbeks?

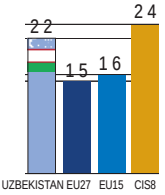
POPULATION PROFILE (2005)

Sex ratio	0.98 males per female	
Urban	37%	*EU27: 74%, EU15: 77%, CIS8: 64%*
Age structure	0–14 years 33%	
		EU27: 16%, EU15: 16%, CIS8: 29%
	≥65 years 4.5%	
		EU27: 17%, EU15: 17%, CIS8: 7%
Dependency ratio	60%	*EU27: 49%, EU15: 50%, CIS8: 58%*

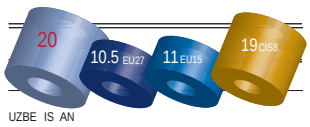
POPULATION DYNAMICS (2005)



Annual growth rate (%)

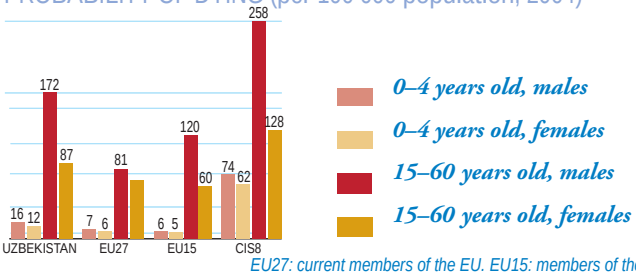


Fertility rate (children born per woman)



Birth rate (live births per 1000 population)

PROBABILITY OF DYING (per 100 000 population, 2004)



EU27: current members of the EU. EU15: members of the EU

LIFE EXPECTANCY AT BIRTH (years, 2004)

Total population	72	*EU27: 78, EU15: 79, CIS8: 68*
Males	70	*EU27: 75, EU15: 76, CIS8: 64*
Females	74	*EU27: 81, EU15: 82, CIS8: 72*

HEALTHY LIFE EXPECTANCY (2002)

	Healthy life expectancy (years)					Total life expectancy lost (%)	
	At birth			At age 60 years			
	Total	Males	Females	Males	Females	Males	Females
Uzbe istan	59	58	61	11	13	12	14
EU27	69	67	71	15	18	9	11
EU15	71	69	73	15	18	9	11
CIS8	58	56	60	10	13	12	14

Points to remember *demographic trends*

During the past decade, Uzbe istan has experienced the follo ing

- a substantial decrease in fertility and birth rates, although they are still higher than those in EU countries;
- a decrease in the number of deaths among children younger than five years of age;
- an increase in the death rates for adult men and omen; and
- poverty and migration affecting the demographic structure of the population.

Sources: 1, 2, 6–8.

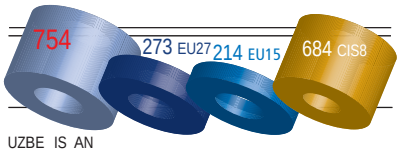
What do the Uzbeks suffer from?

CARDIOVASCULAR DISEASES

- The leading cause of death: 56% of the total deaths (2003).
- Within this group, the major killers are as follows.

before 1 May 2004. CIS8: the 8 countries covered in this book.

– Diseases of the circulatory system (2005): 754 deaths per 100 000.



– Ischaemic heart diseases (2005): 381 deaths per 100 000, causing 9% of the disease burden.
EU27: 103, EU15: 82, CIS8: 350
– Cerebrovascular disease (2005): 178 deaths per 100 000, causing 4% of the disease burden and 14% of all deaths.
– High blood pressure causes an estimated 6% of deaths among men and 7% of deaths among women (2003).

CANCER (MALIGNANT NEOPLASMS)

- 7% of the total deaths (2003).
- Cancer causes 77 deaths per 100 000 population (2005).

- There are 66 new cases of cancer per 100 000 per year (2005). ***EU27: 460, EU15: 475, CIS8: 110***
- New cases per 100 000 per year (2005): cervical cancer: 7 (***CIS8: 10***); breast cancer: 12.5 (***CIS8: 16***); and lung cancer: 4.5 (***EU27: 54, EU15: 54, CIS8: 13***).

RESPIRATORY DISEASES

- Chronic obstructive pulmonary disease causes 2% of all deaths and 4% of the disease burden (2002).

DIABETES

- The prevalence of diabetes is 0.4% (2005).
- Diabetes causes 30 deaths per 100 000 per year (2005), which is relatively high. ***EU27: 14, EU15: 14, CIS8: 25***

EU27: current members of the EU. EU15: members of the EU

MENTAL HEALTH

Per 100 000 population per year:

- New cases of mental disorders (2005): 130. ***CIS8: 100***
- Suicides or deaths from self-inflicted injuries (2005): 6. ***EU27: 11, EU15: 10, CIS8: 8***
- New cases of alcoholic psychosis (2005): 2. ***CIS8: 43***

UNINTENTIONAL INJURIES

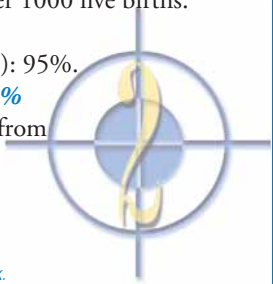
- They cause 49 deaths per 100 000 per year (2005). ***EU27: 42, EU15: 36, CIS8: 61***
- Injuries from road crashes are responsible for 11 deaths per 100 000 per year (2005). ***EU27: 9, EU15: 8, CIS8: 9***

INFECTIOUS AND PARASITIC DISEASES

- Infectious diseases cause 2% of all deaths (2003).
- Tuberculosis (2006): 89 new cases per 100 000 per year. ***EU27: 17, EU15: 10, CIS8: 92***
- New cases of HIV infection (2006): 8 per 100 000. ***EU27: 6, EU15: 6, CIS8: 5***
- Sexually transmitted diseases are high compared with EU levels (per 100 000):
  - New cases of syphilis (2007): 12. ***EU27 (2007): 4, EU15 (2004): 3, CIS8 (last available year): 14***
  - New cases of gonococcal infection (2007): 22. ***EU27 (2007): 8, EU15 (2006): 9, CIS8 (last available year): 21***

CHILD AND ADOLESCENT HEALTH

- Infant mortality (2005): 15 deaths per 1000 live births. ***EU27: 5, EU15: 4, CIS8: 19***
- DTP3 immunization coverage (2006): 95%. ***EU27: 95%, EU15: 95%, CIS8: 94%***
- Death rate of children 0–5 years old from diarrhoea (2005): 2 per 100 000. ***EU27: 0.6, EU15: 0.3, CIS8: 37***



before 1 May 2004. CIS8: the 8 countries covered in this book.

TOP 10 CAUSES OF DEATH IN UZBEKISTAN (2003)

Cause	Total deaths (%)
1. Ischaemic heart disease	32.5
2. Cerebrovascular disease	14
3. Lo er respiratory infections	6
4. Hypertensive heart disease	5
5. Cirrhosis of the liver	4
6. Perinatal conditions	3
7. Inflammatory heart disease	3
8. Tuberculosis	3
9. Chronic obstructive pulmonary disease	2
10. Diabetes mellitus	2

DISEASE BURDEN IN UZBEKISTAN, CIS8 AND THE EU (2002)

Cause	Share of disease burden (%)			
	U bekistan	CIS8	EU27	EU15
Cardiovascular diseases	23	22	14	12
Neuropsychiatric disorders	17	16	30	32
Unintentional injuries	8	8	8	7
Infectious and parasitic diseases	6	7	2	2
Perinatal conditions	7	5	NA	NA
Digestive diseases	5	6	5	4
Respiratory infections	7	6	NA	NA
Respiratory diseases	4	4	6	7
Cancer (malignant neoplasms)	5	6	13	13
Sensory organ disorders	5	4	4	4
Total noncommunicable diseases	85	82	87	84
Total communicable diseases	6	7	2	2
Total injuries	10	11	11	10

NA: not available.

EU27: current members of the EU. EU15: members of the EU

Points to remember *health status*

- Child and maternal death rates have decreased notably, although they are still higher than the average in the WHO European Region.
- Noncommunicable diseases cause 90% of deaths.
- Tuberculosis, HI infection and sexually transmitted diseases are rising.
- Cancer mortality is underreported.

Sources: 1, 2, 5, 8, 9.

Where do the risks lie?

SMOKING

- The adult smoking prevalence is 13%: 24% for men and 1% for women (2002).
  EU27: 28, EU15: 28, CIS8: 22
- Smoking accounts for 4% of the disease burden and 609 deaths per 100 000 (2005).
  EU27: 240, EU15: 200, CIS8: 622

ALCOHOL CONSUMPTION

- Total alcohol consumption (2003): 1 litre per person per year. ***EU27: 9.0, EU15: 9.4, CIS8: 1.5***
- Alcohol causes 5% of the overall disease burden and 7% of the disease burden among men (2003).
- Alcohol-related causes (2005): 111 deaths per 100 000.
  EU27: 67, EU15: 58, CIS8: 124

ILLEGAL DRUG USE

- First admissions to drug treatment centres (2005): 11 per 100 000 per year. ***EU27: 48, CIS8: 40***
- Cannabis is the most frequently used illicit drug: 4% of the population 15–65 years old (2003).
- Prevalence of opiate abuse (2006): 0.8% (15–65 years old).
- Prevalence of amphetamine use (1997): 0.01%.

before 1 May 2004. CIS8: the 8 countries covered in this book.

OBESITY

- Prevalence (2006): 18% of men and 7% of women.
- High body mass index is associated with 15% of all deaths and 6% of the disease burden (2002).
- Physical inactivity is associated with 8% of deaths and 2.5% of the disease burden (2002).

OCCUPATIONAL HEALTH

- New cases of occupation-related disease per 100 000 (2000): 1.5. ***EU27 (2005): 39, EU15 (1999): 45, CIS8 (last available): 30***

Sources: 1, 7, 10, 11.

Who is who in the Uzbek public health sector?

PUBLIC ADMINISTRATION

Ministry of Health

INSTITUTIONS UNDER THE HEALTH MINISTRY

Pharmaceutical Institute
National Centre for Emergency Care
National AIDS Centre
Institute of Health
17 scientific research institutes and centres

PARLIAMENT

Oliy Majlis: Committee on Welfare and Employment and health committees

PROFESSIONAL ASSOCIATIONS

Physicians' Association
Dentists' Association
Association of Psychiatrists
Association of Dermatologists and Venereologists

EU27: current members of the EU. EU15: members of the EU

ACADEMIC INSTITUTIONS

Tashkent State Medical Academy, four medical schools and three regional branches for medical and higher nursing care education
Andijan Medical Institute
Samarkand Medical Institute
Bukhara Medical Institute
Tashkent Institute of Postgraduate Medical Education
Tashkent Institute for Pharmacy

REGIONAL ADMINISTRATION

12 regions (oblasts), 1 autonomous republic and 1 city
District health administrations (rayons)

How are services provided?

Health care in Uzbekistan can be primary, specialized, emergency and for treating diseases "deemed socially significant and hazardous". Public providers accountable to and funded by rayons, oblasts and the national level provide services. Private providers are accountable to the local governments and submit financial reports to the local tax departments.

PUBLIC HEALTH

Sanitary-epidemiological services, the HIV/AIDS centres, the Institute of Health, primary health care units, nongovernmental organizations and international agencies provide public health services in Uzbekistan. The sanitary-epidemiological services are responsible for environmental health services, food safety, controlling communicable diseases and notification to the

before 1 May 2004. CIS8: the 8 countries covered in this book.

Ministry of Health of illnesses defined as "especially dangerous diseases". They are organized at the national, oblast and rayon levels. The prevention and treatment of HIV follows a hierarchical structure, with the National AIDS Centre located in Tashkent and branches operating in each oblast.

The Institute of Health, several government and nongovernmental agencies and primary care providers carry out health promotion and education in Uzbekistan. Some preventive services such as immunization are also incorporated into primary care.

PRIMARY CARE

Public primary care units, outpatient clinics of public secondary and tertiary institutions and private outpatient clinics provide primary care. The financial status and the location of the patient often determine whether a patient will consult a public or private provider.

The services are organized differently in urban and rural areas. There are about 5500 outpatient facilities and clinics consisting of independent clinics for adults and for children, rural and municipal doctors' posts, rural outpatient posts and polyclinics. Obstetrical and medical posts have been retained in some remote rural settlements where the number of families is too small for a rural doctors' post. There were about 4500 feldsher-midwifery posts in 2004 versus about 2450 in 1998.

More and more rural doctors' posts are gradually being introduced to replace feldsher-midwifery posts in most of the country. Between one and five general practitioners in these centres are to serve up to 10 000 people. Under the new structure, the first point of contact for all primary care will be the rural medical centres, and outpatient clinics will provide secondary outpatient care at the next level. Outpatient facilities and clinics reported 229 673 doctor visits (8.8 visits per person) in 2004 – an increase of 29 409 (15%) visits compared with 1998. Flows of people seeking primary health care have changed,

EU27: current members of the EU. EU15: members of the EU

with more people seeking primary care due to the establishment of rural doctors' posts in the past 10 years.

In cities, polyclinics provide all primary care and some specialized services. They have 10 or more staff, mainly specialists (internal care, paediatricians and others), and services are for particular population groups, although in future they are anticipated to become family polyclinics providing care for all population groups.

SECONDARY AND TERTIARY CARE

In the public sector, rural rayon hospitals, central rayon hospitals, oblast and city hospitals and specialized hospitals provide inpatient care. Large hospitals, 46 speciality centres and 26 research institutes provide tertiary inpatient care at the national level. Uzbekistan's health care system defines rural hospitals, rayon hospitals and central rayon hospitals as primary care providers. Hospital-based emergency care has undergone large-scale reforms. A network of emergency departments has been organized throughout the country within the existing inpatient facilities at the rayon, oblast and national levels. They are equipped with modern technologies and have qualified staff.

PUBLIC/PRIVATE MIX

The role of the private sector in health services is growing. Private actors mainly comprise pharmacies, hospitals, dental clinics, physicians working in single practices and institutions involved in producing and supplying pharmaceuticals and medical equipment. In primary and secondary care, single or group practices and the outpatient and inpatient units of large clinics provide private services. In rural and smaller urban areas, the most frequent form of service delivery is by practitioners in single practices or through private arrangements with physicians employed in the public sector. A Licensing Commission has been established under the Ministry of Health following a list of specialities approved for private practice. The number of licences

before 1 May 2004. CIS8: the 8 countries covered in this book.

granted for group and single practices increased in recent years: the Commission had issued private medical practice licences to nearly 2000 individuals and 1400 health care institutions by 2008.

Several hospitals have been privatized, and some secondary/ tertiary care institutions, such as the republican specialized centres for cardiology, surgery, urology and eye microsurgery, are providing private services subject to direct payments out of pocket. The private sector for medicines and medications is developing even faster. Almost all pharmacies have become fully private institutions or have only a relatively minor government share. Dori-Darmon, the leading government pharmaceutical association, has been reorganized as Dori-Darmon Joint Stock Company. MedTexnika and Optika have become fully privatized companies.

Points to remember *service provision*

- Different service models prevail in urban and rural areas; access to care also varies.
- The primary care sector is undergoing reform to ards enhancement.
- Access to secondary and tertiary care has declined in recent years, especially in rural areas, as previously public rural hospitals have switched to private ownership and now charge fees for services.
- Public inpatient care has undergone important changes in terms of decentralization and increased autonomy for health care providers, reduction of hospital capacity and the establishment of a ne framework for delivering emergency care.
- Coordination bet een primary, secondary outpatient, emergency and inpatient care needs to be improved.

Source: 2

EU27: current members of the EU. EU15: members of the EU

What resources are available?

HUMAN RESOURCES FOR HEALTH

This is one of the problem areas in Uzbekistan's health care system. Although the numbers of health professionals were traditionally fairly high, well-educated, skilled and knowledgeable health professionals are now lacking. The brain drain of doctors to other sectors has been significant. In addition, a restructuring of health care institutions, a reduction of enrolment into medical schools and a lack of job uptake in health care institutions by medical school graduates have contributed to a gradual decline of active health professionals between 1991 and 2005. The numbers of health professionals have risen again since 2005. Physicians are very unevenly distributed, with doctors crowding in the cities whereas rural and especially remote sites suffer from a substantial lack of staff. About two thirds of the population live in rural areas, but less than half the doctors work there. There is also an imbalance between general practitioners and specialists, with a general lack of general practitioners compared with specialists but also a lack of specialists in such fields as laboratory medicine, psychiatry, tuberculosis and radiology.

Only about one fifth of doctors have received postgraduate training.

Nurses are still high in numbers, but those working full time are declining. The private sector employs most pharmacists, and some physicians work privately in group practices in cities and at outpatient units of large clinics, although there are also private arrangements with physicians working in the public sector. The overall job satisfaction of health professionals is not very high.

before 1 May 2004. CIS8: the 8 countries covered in this book.

HEALTH PROFESSIONALS (per 100 000, 2005)

Physicians	268	*EU27: 315,*	*EU15: 332,*	*CIS8: 315*
Dentists	20	*EU27: 62,*	*EU15: 66,*	*CIS8: 25*
Nurses	1024	*EU27: 742,*	*EU15: 794,*	*CIS8: 585*
Pharmacists	3	*EU27: 72,*	*EU15: 81,*	*CIS8: 19*
GPs	16	*EU27: 98,*	*EU15: 103,*	*CIS8: 31*

HOSPITALS (2005)

The number of hospital beds per population increased in the 1980s and peaked at more than 12 per 1000 population in 1990, which was among the highest rates in Europe. However, bed capacity declined sharply by more than 50% until 2005. Admissions and the average length of stay in hospitals decreased by 13–15% between 1995 and 2003. Between 1997 and 2004, the number of rural hospitals declined significantly, but the numbers of rayon hospitals and central rayon hospitals increased. Municipal, infectious diseases and other specialized and rural precinct hospitals have been significantly reformed and the number of beds reduced by one to two thirds.

The geographical distribution of hospital beds is imbalanced. More than half the total hospital beds are located in provincial centres and Tashkent city, although most people live in rural areas. Urban residents have access to more specialized and better-equipped hospitals.

Hospitals per 100 000 inhabitants: 4

EU27: 3, EU15: 3, CIS8: 5

Hospital beds per 100 000 inhabitants:

549

Annual inpatient admissions per 100 inhabitants: 15

EU27: 18, EU15: 17, CIS8: 11

EU27: current members of the EU. EU15: members of the EU

Average length of stay (days): 10
EU27: 9, EU15: 10, CIS8: 11

PHARMACEUTICALS

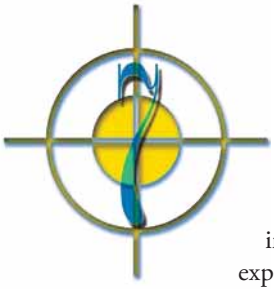
Following independence, the government maintained regulatory functions and the production and distribution of pharmaceuticals were delegated to the private sector. About 80% of drugs are imported, but there is a strategy for domestic production of pharmaceuticals and supplies. The list of essential medicines is updated annually and is in accordance with WHO recommendations. Pharmaceuticals for outpatient care must be paid for out of pocket except for some exempted population and patient groups. In principle, there are some provisions for eligibility for reimbursement, but in practice most people need to fully pay for pharmaceuticals that are nominally free of charge. Medicine legislation is currently being seriously revised and harmonized with international requirements. Elements of the regulatory system are in place but poorly enforced. The quality of medicines is of major concern. Most pharmacies do not have conditions for proper storage of medicines.

Points to remember *resources for health*

- The number of doctors is constantly decreasing due to brain drain and a substantial reduction of enrolment of students into medical schools.
- Lac of diagnostic e uipment and drugs, restricted access to information and education and lo salaries (about US$ 80–100 per month, irregularly paid) often lead to low motivation of health professionals and drain to other sectors.
- Privatization of the production and distribution of pharmaceuticals and supplies has provided new opportunities to circumvent the shortages of foreign drugs but has made obtaining information difficult, as private pharmacies do not report to the public agencies.

Source: 1

before 1 May 2004. CIS8: the 8 countries covered in this book.



Who pays for what?

Public funding through the state budget, which is mainly tax-based, continues to be the main form of funding. Taxation includes income taxes, value-added tax, export and import taxes and others. Taxation is not earmarked for health.

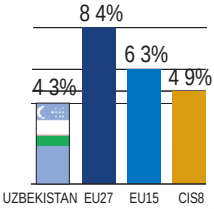
Other means of health funding have gradually increased with public sector reform and privatization. Out-of-pocket payments have become a permanent part of the health system and voluntary insurance schemes have emerged, although to a limited extent. The allocation of resources to the providers depends on the funding sources and the ownership of the providers.

There are three main allocation mechanisms: public funding from the state budget (mostly for public health facilities), external funding (out-of-pocket payments, employer contributions or voluntary health insurance for services provided outside the state-guaranteed package) and funding from external sources that flows to the private sector. The Ministry of Health does not regulate external sources.

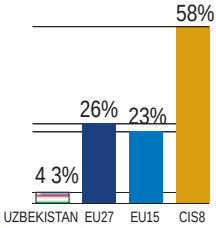
A basic benefit package determines coverage and state funding for all residents for a certain set of services including emergency care; outpatient and inpatient care; immunization; obstetric care; care for children and adolescents; care for special diseases including tuberculosis; occupational diseases; cancer; mental disorders; drug abuse; and endocrine disorders. Complementary services to be funded from other funding sources are also defined by law.

Public health care providers provide the state-guaranteed package of health care services free of charge. All services outside the package are funded by non-public sources.

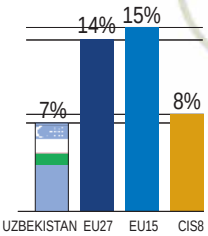
EU27: current members of the EU. EU15: members of the EU



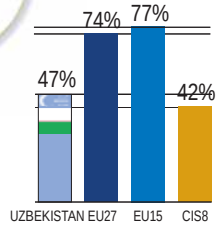
Total expenditure on health (% of GDP)



Private expenditure on health (% of total expenditure on health)



General government expenditure on health (% of total government expenditure)



General government expenditure on health (% of total health expenditure)

Private households' out-of-pocket expenditure on health 97
(% of total private health spending, 2007)

Population below poverty line 27%

before 1 May 2004. CIS8: the 8 countries covered in this book.

Points to remember *health financing*

- The public share of total health care expenditure has been declining.
- Public funding for health care is mainly by taxation, but new private funding sources have emerged.
- Out-of-pocket payments account for a very large and increasing share of health care revenue, thus jeopardizing financial protection and solidarity.
- Health expenditure differs significantly between regions.
- Coverage of services through state funding is subject to a basic benefit package, and services beyond this package are also defined by law.
- Provider payment schemes need to be reviewed to find better incentives for increasing the quality of services delivered.

Sources: 1, 2, 19, 26, 28.

How have the Uzbeks reformed their health care system?

Major reforms of Uzbekistan's health care system started in the second half of the 1990s with two key pieces of legislation: the Law on Health Protection (1996) and a presidential decree (1998).

- 1994: Private pharmacies and private medical practices were legalized.
- 1996: Government priorities and a new legal framework for the health sector were introduced, defining health care rights, levels of care, providers of care and governing institutions in the system.
- 1997: An essential drug list, new regulations for the import and export of drugs and quality control for market approval, production and distribution of drugs were introduced.

EU27: current members of the EU. EU15: members of the EU

- 1998: A presidential decree laid out priorities for future reforms and a master plan for reform of the health sector (1998–2005). The decree identified priority areas and operational guidelines such as for establishing a conceptual framework for health reforms; defining state-funded services and those eligible for private activities; developing rural and medical centres for delivering primary care throughout the country; establishing workforce and medical education forecasts for 2001–2005; transforming nursing schools into professional colleges; and a nationwide network of emergency care centres.
- 1999: Primary health care reform was initiated with two health projects. The Health 1 Project (1998–2005) was run jointly by the World Bank (US$ 30 million) and the Government of Uzbekistan (US$ 40 million) and piloted several new mechanisms and frameworks for delivering, funding and managing primary care. The World Bank (US$ 39 million) and the Government of Uzbekistan (US$ 78 million) are carrying out the Health 2 Project between 2005 and 2010. The project aims to roll out the pilot schemes throughout the country and to introduce new approaches to maternal and child health, public health and monitoring and evaluation.
- 2005: The Government of Uzbekistan signed agreements with the World Bank for grants to implement the National Flour Enrichment Programme designed to enhance the effectiveness of measures to reduce the incidence of iron-deficiency anaemia; and with the Global Fund to Fight AIDS, Tuberculosis and Malaria for grants totalling about US$ 40 million to combat HIV, tuberculosis and malaria.
- 2006: An agreement with the Islamic Development Bank was signed to improve the infrastructure of the National Emergency Medical Assistance Research Centre and its provincial branches through the procurement of equipment.

before 1 May 2004. CIS8: the 8 countries covered in this book.

- 2007: A presidential decree provided for establishing specialized medical centres; improving the prevention of infectious diseases; upgrading medical training; and supporting the privatization of health care providers.

Since 1999, more than 14 governments, international organizations and nongovernmental organizations have supported the health system reform process in Uzbekistan by providing technical assistance and funding numerous projects worth more than US$ 200 million.

Points to remember

health reforms

- Funding reforms have mainly focused on privatizing funding sources, ith out of poc et payments no being a predominant source of funding in all levels of care.
- Primary care and emergency care have been the most visible sectors of health care reforms in service delivery.
- Reforms of the secondary care level have been limited to gradual restructuring of the hospital net or and reducing capacity, especially in rural areas.
- Coordinating care between levels remains a major challenge.

What is one of the things the Uzbeks have learned by doing?

STRONGER PRIMARY HEALTH CARE

Before independence, primary care relied on a multi-tiered system; it was less of a priority than hospital care. Resources were continually lacking, with the low status of primary care workers deterring the most qualified health professionals from entering primary care. Primary care units were staffed with specialists, leading to high referral rates and an uneven distribution of specialists. This resulted in significant inefficiency and poor quality of services.

EU27: current members of the EU. EU15: members of the EU

The Health 1 Project aimed to strengthen the design of the system and reconstruct facilities by strengthening primary health care services, training GPs and nurses and reforming the funding and management of services. A two-tiered system of primary care was established in rural areas, with primary care units becoming the first point of access for the health needs of the rural population. This contrasted with the previous system, in which people could access primary health care at any tier. In addition, the health care reform project introduced the new specialty of general practice, which is expected to replace all other specialists in primary care. The project component on funding was designed to introduce a new fiscal framework that allowed for more flexibility and positive financial incentives.

The Health 2 Project is still being implemented, but initial evaluations of the Health 1 Project indicate improvements: the number of health professionals retrained for general practice is growing, the infrastructure in primary care settings is being extended and resources have been shifted from secondary to primary care.

What has the Regional Office been doing in Uzbekistan?

The WHO Country Office in Uzbekistan opened in Tashkent in 1994. In 2006–2007, the Regional Office supported Uzbekistan in:

- strengthening health systems performance;
- improving the health of mothers and children;
- enhancing the control and management of noncommunicable diseases;

before 1 May 2004. CIS8: the 8 countries covered in this book.

- preventing and managing communicable diseases; and
- fostering environmental health safety.

In 2008–2009, the Regional Office is supporting Uzbekistan in:

- reducing the burden of communicable and noncommunicable diseases;
- addressing maternal, child and adolescent health; and
- strengthening the key functions of the health system.

EU27: current members of the EU. EU15: members of the EU

OTHER SOURCES OF INFORMATION ON UZBEKISTAN

Andijan State Medical Institute http://www.andmi.uz

Apteka.uz http://www.apteka.uz

Development Assistance Database of Uzbekistan http://www.dad.uz

Eurasianet Uzbekistan http://www.eurasianet.org/resource/uzbekistan/index.shtml

European Union's relations with Uzbekistan http://ec.europa.eu/comm/external_relations/uzbekistan/intro/index.htm

Global Fund to Fight AIDS, Tuberculosis and Malaria (country web site) http://www.theglobalfund.org/programs/countrysite.aspx?countryid=UZB

Government of Uzbekistan http://www.gov.uz

Medical Diagnostics Services http://www.mds.uz

Ministry of Health http://www.mzr.uz

OSCE Project Coordinator in Uzbekistan http://www.osce.org/tashkent

School of Public Health, Tashkent Medical Academy http://www.sph.uz

Tashkent Medical Academy http://www.tma.uz

Tashkent Pharmaceutical Institute http://www.pharmi.uz

UNAIDS (country web site) http://www.unaids.org/en/Regions_Countries/Countries/uzbekistan.asp

UNDP (country web site) http://www.undp.uz

UNICEF (country web site) http://www.unicef.org/uzbekistan

WHO (country web site) http://www.who.int/countries/uzb/en

World Bank Mission in Uzbekistan http://www.worldbank.org.uz

before 1 May 2004. CIS8: the 8 countries covered in this book.

REFERENCES

1. European health for all database [online database]. Copenhagen, WHO Regional Office for Europe, 2008 (http://www.euro.who.int/hfadb, accessed 15 November 2008).

2. Health Systems in Transition country profiles [web site]. Copenhagen, WHO Regional Office for Europe for the European Observatory on Health Systems and Policies, 2008 (http://www.euro.who.int/observatory/Hits/TopPage, accessed 15 November 2008).

3. *Human development report 2007/2008 – fighting climate change: human solidarity in a divided world*. New York, United Nations Development Programme, 2007 (http://hdr.undp.org/en/media/hdr_20072008_en_complete.pdf, accessed 15 November 2008).

4. *The world factbook 2008*. Washington DC, United States Central Intelligence Agency, 2008 (http://www.cia.gov/cia/publications/factbook, accessed 15 November 2008).

5. *The European health report 2005: public health action for healthier children and populations*. Copenhagen, WHO Regional Office for Europe, 2005 (http://www.euro.who.int/ehr2005, accessed 15 November 2008).

6. *The world health report 2006 – Working together for health*. Geneva, World Health Organization, 2006 (http://www.who.int/whr/2006/en, accessed 15 November 2008).

7. WHO statistical information system [online database]. Geneva, World Health Organization, 2008 (http://www.who.int/whosis/en, accessed 15 November 2008).

8. Highlights on health [web site]. Copenhagen, WHO Regional Office for Europe, 2008 (http://www.euro.who.int/highlights, accessed 15 November 2008).

9. Centralized information system for infectious diseases (CISID) [online database]. Copenhagen, WHO Regional Office for Europe,

2008 (http://www.euro.who.int/surveillance/20030623_1, accessed 15 November 2008).

10. *World drug report 2007*. Vienna, United Nations Office on Drugs and Crime, 2007 (http://www.unodc.org/unodc/en/data-and-analysis/WDR-2007.html, accessed 15 November 2008).

11. *The global health atlas*. Geneva, World Health Organization, 2007 (http://www.who.int/globalatlas/default.asp, accessed 15 November 2008).

12. *Country strategic health needs: report and priorities for WHO collaboration 2004–2010*. Copenhagen, WHO Regional Office for Europe, 2007 (series of unpublished documents).

13. Hovhannisyan SG. *Health care in Armenia.* British Medical Journal, 2004, 329:522–523.

14. Von Schoen-Angerer T. Understanding health care in the south Caucasus: examples from Armenia. *British Medical Journal*, 2004, 329:5652–5655.

15. Healthy life expectancy 2002 [web site]. Geneva, World Health Organization, 2005 (http://www3.who.int/whois/hale/hale, accessed on 15 November 2008).

16. State Statistical Committee of the Republic of Azerbaijan [web site]. Baku, State Statistical Committee of the Republic of Azerbaijan, 2008 (http://www.azstat.org/indexen.php, accessed 15 November 2008).

17. *The world health report 2005 – Make every mother and child count*. Geneva, World Health Organization, 2005 (http: //www.who.int/whr/2005/en/index.html, accessed 15 November 2008).

18. Balabanova D et al. Health service utilization in the former Soviet Union: evidence from eight countries. *Health Services Research*, 2004, 39:1927–1950.

19. McKee M, Healy J, Falkingham J. *Health care in central Asia*. Buckingham, Open University Press, 2002.

20. Republican Medical Information Centre. *Population health of population and performance of health care facilities of the Kyrgyz Republic in 2000*. Bishkek, Ministry of Health, 2001.

21. *Kyrgyz Republic: new prospects. Comprehensive development framework for the Kyrgyz Republic until 2010. All-nation strategy*. Bishkek, Ministry of Finance, 2001.

22. *The world health report 2004 – Changing history*. Geneva, World Health Organization, 2004 (http://www.who.int/whr/2004/en, accessed 15 November 2008).

23. Falkingham J. Poverty, out-of-pocket payments and access to health care: evidence from Tajikistan. *Social Science and Medicine*, 2004, 58, 247–258.

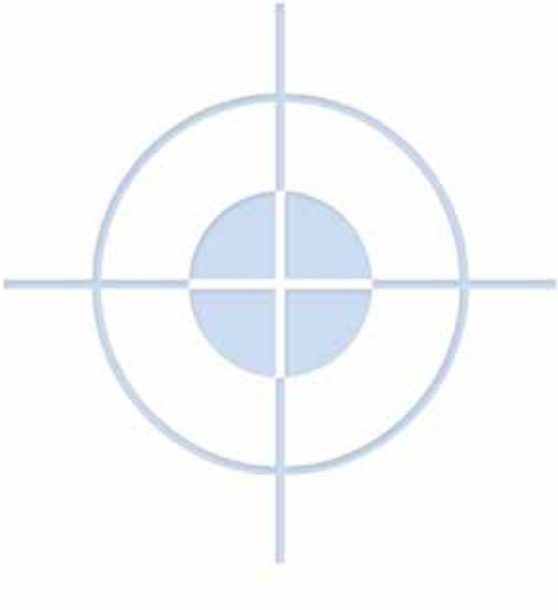
24. *Health care in Turkmenistan: its past, present and future*. Ashgabat, Ministry of Health and Medical Industry, Turkmenistan, 2005.

25. President of Turkmenistan. *National Program of the President of Turkmenistan on reforming social-living conditions of the population of villages, settlements, cities of districts and district centers for the period till 2020*. Ashgabat, Government of Turkmenistan.

26. *Law on health protection*, 29 August 1996. Tashkent, Republic of Uzbekistan, 1996 (N 265-I).

27. Economist Intelligence unit. Country analysis and forecasts reports 2009 [online database]. London, Economist Intelligence unit, 2008 (http://countryanalysis.eiu.com/), accessed 1 March 2009.

28. WHO National Health Accounts [online database]. Geneva,World Health Organization, 2009 (http://www.who.int/nha/country/en/index.html, accessed 1 March 2009).




Armenia


Azerbaijan


Georgia


Kazakhstan


Kyrgyzstan


Tajikistan


Turkmenistan


Uzbekistan

GLOSSARY

Annual population growth rate (%)
Indicator used in population studies to assess average change in the size of a population from one year to the next.

Burden of disease
Estimates on the burden of disease are based on mortality and morbidity data by age, sex and region, summarized to the single measures health-adjusted life-years and disability-adjusted life-years.

Dependency ratio
An indicator used in population studies to measure the population economically dependent on the active age group, it is calculated as the sum of those aged 0–14 years and those aged either 65 (or 60) years and older, depending on the working-age limit considered, divided by the number of people aged 15 to 64 (or 59) years, respectively.

Disability-adjusted life-years
A summary measure combining the impact of illness, disability and mortality on population health.

Fertility rate
The average number of children a hypothetical cohort of women would have at the end of their reproductive years if they were continuously subject to the fertility rate of a given period and did not die, expressed as children per woman.

GDP per capita
Gross domestic product (GDP) per capita is the market value of the total final output of goods and services produced in a country over a specific period of time per person. It is

expressed in international dollars, a common currency unit that takes account of differences in the relative purchasing power of currencies. Figures expressed in international dollars are calculated using purchasing power parity, which accounts for differences in the consumer price levels among countries.

General government expenditure on health (% of total government expenditure)

Public health expenditure is the sum of outlays on health from taxes, social security contributions and external resources (without double-counting government transfers to social security and extrabudgetary funds). General government expenditure corresponds to the consolidated outlays of all levels of government, territorial authorities (central or federal government, provincial, regional or district governments and municipal or local governments), social security institutions and extrabudgetary funds, including capital outlays.

Healthy life expectancy (years), total population

Healthy life expectancy (HALE) is based on life expectancy adjusted for time spent in poor health. It measures the equivalent number of years in full health that a person (a newborn or 60-year-old) can expect to live based on the current mortality rates and prevalence distribution of health states in the population.

Human Development Index

The Human Development Index is a summary composite index that measures a country's average achievements in three basic aspects of human development: longevity, knowledge and a decent standard of living. Longevity is measured by life expectancy at birth; knowledge is measured by a combination of the adult literacy rate and the combined primary, secondary and tertiary gross enrolment ratios; and standard of living by GDP per capita.

Infant mortality
The number of deaths per 1000 children younger than one year of age in the population.

Life expectancy
The average number of years a person can expect to live if he or she embodies the current mortality rate of the population at each age.

Obesity
Obesity is the accumulation of adipose tissue to an extent that health is impaired. It is usually determined using the body mass index (BMI), the standard of choice for many health professionals, based on a weight-to-height ratio. Overweight is defined as a BMI of 25–29 kg/m^2. Obesity is defined as a BMI of ≥30 kg/m^2. Obesity correlates strongly with comorbid conditions and mortality.

Public expenditure on health
Public health expenditure is the sum of outlays on health from taxes, social security contributions and external sources (without double-counting government transfers to social security and extrabudgetary funds).

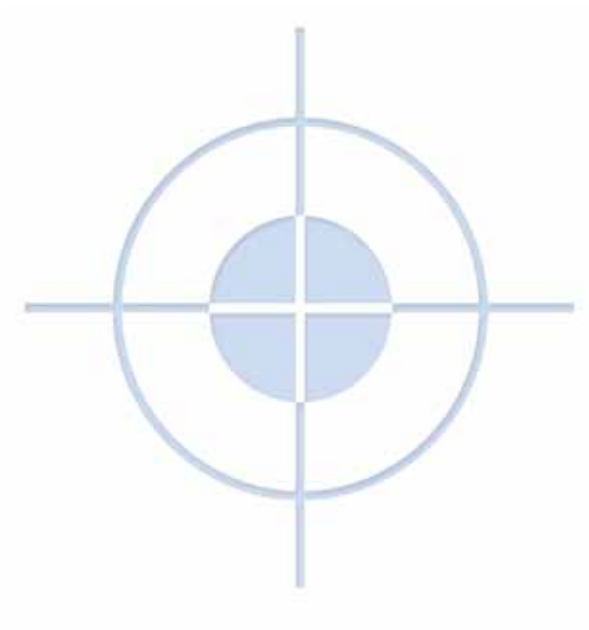
Standardized death rate
Number of deaths (usually per 100 000 population) adjusted to the age structure of a standard European population.

Total expenditure on health (% of GDP)
Total health expenditure is the sum of public and private expenditure on health.

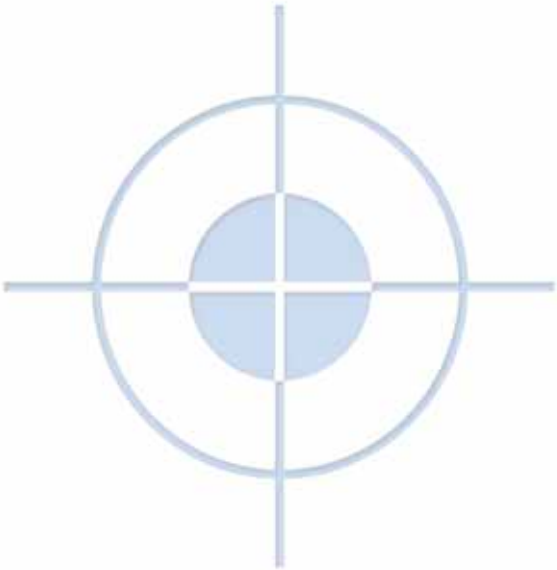
Total life expectancy lost (%)
Expressed as a percentage of total life expectancy, this represents the proportion of total life expectancy lost through states of less than full health.

Unemployment rate

Unemployed people as a percentage of the total population aged 15–64 years in the labour market.



NOTES










World Health Organization
Regional Office for Europe
Scherfigsvej 8
DK-2100 Copenhagen Ø
Denmark
Tel.: +45 39 17 17 17. Fax: +45 39 17 18 18. E-mail: postmaster@euro.who.int
Web site: www.euro.who.int

ISBN 978 92 890 4169 0