Health Care Systems in Transition

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Foreword

The Health Care Systems in Transition (HiT) profiles are country-based reports that provide an analytical description of a health care system and of reform initiatives in progress or under development. The HiTs are a key element of the work of the European Observatory on Health Systems and Policies.

HiTs seek to provide relevant comparative information to support policy-makers and analysts in the development of health care systems in Europe. The HiT profiles are building blocks that can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services;
- to describe the process, content and implementation of health care reform programmes;
- to highlight challenges and areas that require more in-depth analysis; and
- to provide a tool for the dissemination of information on health care systems and the exchange of experiences of reform strategies between policy-makers and analysts in different countries.

The HiT profiles are produced by country experts in collaboration with the Observatory's research directors and staff. In order to facilitate comparisons between countries, the profiles are based on a template, which is revised periodically. The template provides the detailed guidelines and specific questions, definitions and examples needed to compile a HiT. This guidance is intended to be flexible to allow authors to take account of their national context.

Compiling the HiT profiles poses a number of methodological problems. In many countries, there is relatively little information available on the health

care system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including the WHO Regional Office for Europe health for all database, Organisation for Economic Cooperation and Development (OECD) Health Data and data from the World Bank. Data collection methods and definitions sometimes vary, but typically are consistent within each separate series.

The HiT profiles provide a source of descriptive information on health care systems. They can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health care systems. This series is an ongoing initiative: material is updated at regular intervals. Comments and suggestions for the further development and improvement of the HiT profiles are most welcome and can be sent to observatory@who.dk. HiTs, HiT summaries and a glossary of terms used in the HiTs are available on the Observatory's website at www.observatory.dk.

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The current series of Health Care Systems in Transition profiles has been prepared by the research directors and staff of the European Observatory on Health Systems and Policies. The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the governments of Belgium, Finland, Greece, Norway, Spain and Sweden, the European Investment Bank, the Open Society Institute, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

The Observatory team working on the HiT profiles is led by Josep Figueras, Head of the Secretariat, and research directors Martin McKee, Elias Mossialos and Richard Saltman. Technical coordination is led by Susanne Grosse-Tebbe.

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Introduction and historical background

Introductory overview

Azerbaijan is located on the western coast of the Caspian Sea. It is divided into two parts, the autonomous republic of Nakhichevan and the main territory of Azerbaijan, that are separated by Armenian territory. About 50% of the land is mountainous. In most places the climate is dry and 70% of the cultivated land is irrigated. The country is rich in minerals, especially oil, and for more than a hundred years the economy has been dominated by petroleum extraction and processing. Azerbaijan supplied almost half of the world's oil at the beginning of the 20th century and oil remains central to the country's economy. Azerbaijan also has an agricultural industry, producing cotton and grapes primarily for export, and wheat, vegetables and tobacco for internal consumption.

The population was estimated to be 8 172 000 in 2002 *(1)*, with 51% living in urban areas. Within this population 90.6% are Azeris, 2.2% Lezgins, 1.8% Russian, 1.5% Armenian, and 3.9% from other groups such as Talysh, Avars, Turks, Georgians, Tartars, etc. *(2)*. These demographic estimates are somewhat imprecise because of the population displacement resulting from the war with Armenia (and Armenian forces' occupation of about 20% of the national territory). According to official estimates, there were over one million refugees and internally displaced persons (IDPs) in Azerbaijan, of whom about 650 000 are internally displaced people from Nagorno-Karabakh and the nearby territories *(3)*. In addition, there are about 250 000 ethnic Azeris from Armenia as well as 50 000 Meshkatian Turks displaced from central Asia in 1990. In total, these figures represent over 12% of the country's population.

The territory that is now Azerbaijan is known to have been inhabited for at least 3000 years. It was settled variously by the Scythians, Zoroastrians,

Fig. 1. Map of Azerbaijan[1]

Source: United Nations Cartographic Section, 1997.

Turks, Persians and Russians. In 1828 the Turkmanchay Treaty, signed by Persia and Russia, divided Azerbaijan into two parts. Under this treaty what was then northern Azerbaijan became Azerbaijan and part of the Russian Empire. Southern Azerbaijan became part of Persia. Although an independent Azerbaijan Republic was declared in 1918, this independence was short-lived as the Red Army invaded in 1920. Azerbaijan became part of the Soviet Union as a member of the Transcaucasian Soviet Federated Socialist Republic in 1922 and, after its dissolution in 1936, a separate Soviet Socialist Republic. As part of the Soviet Union, the country underwent a process of fundamental economic and political change similar to the other constituent parts of the union. This included intensive industrialization and collectivization of agriculture alongside expansion of the systems for education and health care. By the end of the 1980s, tensions surfaced between Armenia and Azerbaijan, centred on the territory of Nagorno-Karabakh of Azerbaijan, which had been created as an autonomous

[1] The maps presented in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the European Observatory on Health Systems and Policies or its partners concerning the legal status of any country, territory, city or area or of its authorities or concerning the delimitations of its frontiers or boundaries.

region within Azerbaijan in 1923. In 1988, ethnic Azerbaijanis began to leave the Nagorno-Karabakh region and many ethnic Armenians left Azerbaijan. Interethnic conflict intensified rapidly alongside a growing independence movement in Azerbaijan. In 1990 this erupted in violent hostilities in Baku, when Soviet military forces intervened in Popular Front demonstrations that demanded the resignation of the communist authorities. Over 130 died and hundreds more were injured.

In 1991, as the Soviet Union was disintegrating, the republican authorities in Azerbaijan declared independence (18 October) and Azerbaijan became a member of the Commonwealth of Independent States in December 1991. In the same year Nagorno-Karabakh's leaders declared it to be an independent republic, leading to a further increase in hostilities that developed into full-scale war over Karabakh in 1992. After two years of armed conflict and the mass displacement of hundreds of thousands of people, a ceasefire accord was signed between Azerbaijan and Armenia in 1994. Following recurring efforts by the OSCE Minsk Group set up in 1992 to resolve the Karabakh conflict, peace talks eventually gained momentum in 2001 at the Key West (Florida) summit between the leaders of Azerbaijan and Armenia. However, no agreement was reached and the peace process stalled. Only recently the OSCE Minsk Group has renewed attempts to resume direct talks between the two countries to resolve the Karabakh conflict and introduce new approaches into the peace process *(4)*.

Azerbaijan became a full member of the Council of Europe in 2001.

Government

Azerbaijan is a Presidential Republic; its constitution was adopted by referendum on 12 November 1995. Since October 2003 President Ilham Aliyev has headed the executive branch, taking over from his father Heydar Aliyev, who had been president since 1993. The head of government, currently Prime Minister Artur Rasizada, is appointed by the President and confirmed by the National Assembly, as is the Council of Ministers (Cabinet). The president is elected by a popular vote for a five-year term.

The legislative branch comprises the unicameral National Assembly ('Milli Mejlis') whose 125 members are elected by popular vote to serve five-year terms *(5)*. Around 60 parties competed for seats at the last election. The Supreme Court, formed in 1998, heads the judicial branch of government. Municipal elections were held for the first time in 1999, although local government and its relationship with central government are still being developed.

Demographic and health indicators

The system of vital registration data, although based on the Soviet model, is known to be subject to many limitations. For example, it excludes many events that take place outside Ministry of Health facilities, such as those treated by other providers: the military, railway workers and those treated in the private sector. In addition, it is believed that there may be some reluctance to report all deaths within Ministry of Health facilities. Recent figures by the World Health Organization estimated 75% completeness of mortality data covered by the vital registration system in Azerbaijan. This estimate relates to adult deaths only, with completeness of child deaths likely to be even lower. Consequently, it is likely that the official data underestimate mortality rates.

Table 1. Demographic indicators, 1990–2001

	1990	1995	1996	1997	1998	1999	2000	2001	2002
Population (millions)	7.0	7.4	7.5	7.5	7.9	8.0	8.1	8.1	8.2
% population under 15 years	33.2	33.0	32.8	32.8	31.7	31.3	30.3	29.2	28.1
% population 65 years or older	4.8	5.6	5.7	5.7	5.6	5.6	5.8	6.1	6.4
Deaths per 1000 population	6.1	6.8	6.4	6.2	5.9	5.8	5.8	5.6	5.7
Live births per 1000 population	26.1	19.3	17.3	17.5	16.7	14.7	14.5	13.6	13.6

Source: WHO Regional Office for Europe health for all database.

While recognizing the limitations of vital registration data, official statistics indicate that Azerbaijan has a young population, with about 29% of the population aged under fifteen years (contrasting with about 17% in the EU-15). The birth rate fell by almost 50% between 1990 and 2001; the total fertility rate is presently about 2, a drop from the 1990 estimate of 2.8 *(6).*

On the basis of official data, life expectancy in Azerbaijan appears to have dropped dramatically in the 1990s: falling from 71.4 in 1990 to 67.9 just four years later. It has improved since, displaying a pattern common to most former Soviet republics. The decline was particularly dramatic among men, who suffered a nearly 5-year loss in the first 4 years of the 1990s. In 2002, official life expectancy for men and women combined reached 72.4, although if more plausible infant mortality data (see below) is factored into the life tables, the true figure is likely to be at least 5 years less. Thus, according to estimates by the World Bank, in 2001, life expectancy at birth was about 62 years in men and 68 years in women and thus among the lowest in all of Europe, especially for women.

Table 2. Life expectancy at birth

	1990	1995	1996	1997	1998	1999	2000	2001	2002
Official statistics[a]									
Men	67.1	65.4	66.4	67.0	68.1	68.3	68.7	69.7	69.8
Women	75.3	73.4	74.3	74.8	74.8	74.1	74.4	75.0	75.0
World Bank estimates[b]									
men	67	65.2	–	63.8	–	–	61.7	61.8	–
women	74.8	72.9	–	71.3	–	–	68.9	68.3	–

Sources: [a] WHO Regional Office for Europe health for all database, [b] 2003 World Development Indicators *(7)*.

The leading causes of premature death (i.e. under age 65) in Azerbaijan (2002) are, in order of magnitude, diseases of the circulatory system – heart disease, stroke and related conditions (105/100 000), cancer (68/100 000), external injuries and poisoning - including suicide and traffic accidents (24/100 000) and infectious and parasitic disease (26/100 000) *(6)*, although again the caveat about data quality should be noted. The war in the Nagorno-Karabakh region is likely to have contributed to the dramatic rise (and subsequent fall following the 1994 ceasefire) in injury-related deaths in the first half of the 1990s.

Infant mortality was reported to be 12.8 per 1000 life births in 2002 *(8)*. However, according to the findings of the Azerbaijan Multiple Indicator Cluster Survey (MICS) *(9)* and the 2001 Reproductive Health Survey *(10)* infant mortality is likely to be up to six times higher, at approximately 75 per 1000 (estimate for 1996–2000). Azerbaijan continues to use the narrow Soviet definition of a live birth, which, compared to the application of WHO definitions, has been estimated to result in an infant mortality rate that is about 25% lower *(11)*. However, differences in definition account for only part of the observed gap between survey estimates and official rates. Clearly, there is also substantial misreporting and underrecording of infant births and deaths. Infant mortality rates appear to be higher in rural areas than in urban, at up to 50%, and about three times higher in poor households than in rich *(9)*. Available data also suggest a substantial differential for infants born to IDP women compared to non-IDP, with mortality rates up to 50% higher among IDPs *(10)*.

Table 3. Infant mortality rate

	1990	1995	1996	1997	1998	1999	2000	2001	2002
Official statistics[a]	22.9	24.3	20.8	19.4	16.6	16.5	12.8	12.5	12.8
World Bank[b]	84	81	–	79.8	–	–	78	77	
UNICEF[c]	–	34	34	34	36	34	–	74	74

Sources: [a] WHO Regional Office for Europe health for all database, [b] 2003 World Development Indicators *(7)*, [c] UNICEF *(12)*.

High levels of infant mortality are reflected in comparatively high levels of under-5 mortality although mortality rates among children aged 1 to 4 also appear to be rather higher in Azerbaijan, at 14 deaths per 1000 children compared with 3 to 4 per 1000 in neighbouring Armenia and Georgia *(13)*. On a global scale, Azerbaijan has the rather unfortunate distinction of having the highest under-5 mortality rate in the WHO European Region, with an estimated 105 deaths per 1000 live births ranking 46th among 193 countries, followed only by Turkmenistan at rank 49 (98/1000) *(12)*.

Likewise, maternal mortality suggests a worrying picture although the precise trends are difficult to interpret. According to official data, the maternal mortality rate was about 40 deaths per 100 000 live births by the end of the 1990s, more than double the European average (at about 20/100 000) and nearly eight times the EU-15 level (5.3/100 000 in 1999) *(6)*. However, recent official figures suggest that maternal mortality had halved to 19.9 per 100 000 in 2002. In contrast, according to estimates by UNICEF, UNFPA and WHO, maternal mortality may be as high as 94/100 000 (2000) *(14)*. One factor that is thought to contribute to the high maternal mortality rate is a trend toward increasing numbers of deliveries outside health facilities because of unaffordability of care *(9)*. According to the 2001 Reproductive Health Survey, 35.5% of rural women delivered at home, twice the rate of urban women. Low-income women are four times more likely to have a home delivery than their better-off counterparts. Abortion-related complications also substantially contribute to the burden of maternal mortality *(10)*. Abortion is believed to be an important form of contraception. Survey data suggest that the rate of induced abortions to live births was three abortions for each live birth for the period 1996–1998; the annual number of abortions per 1000 women of reproductive age was estimated at 116 in the 1998–2000 period, the second highest in the European region, only Georgia recording higher rates (125/1000 in 1997–1999) *(13)*.

Like its neighbours in the Caucasus, Azerbaijan has moved only part way along the health transition, facing a double burden of diseases of westernization and of poverty. The breakdown in the health care system, affecting both prevention and treatment, has accentuated the situation. The impact of the

traditional risk factors in this region is apparent, with high levels of harm from both tobacco and alcohol. Like other former Soviet republics, Azerbaijan has been targeted aggressively by western tobacco companies and smoking accounts for a considerable part of the burden of disease among men. Recent estimates suggest that in 2000 about 17% of deaths among men aged 35–69 in Azerbaijan might have been attributable to smoking *(15)*. Tobacco consumption is estimated at around 0.8 kg per adult per year *(2)*. The Ministry of Health reports that over 40% of the 30 to 39-year-old age group and 50% of the 40 to 49-year-old age group smoke *(16)*. Similarly, there is a high level of alcohol consumption which is likely to contribute to the mortality burden, official statistics (almost certainly an underestimate) suggest an average of 5.2 litres per adult in 2000 *(2)*.

At the same time, Azerbaijan faces problems more often associated with lower income countries: relatively high levels of infectious disease, malnutrition among children and high rates of common childhood diseases. The effects of transition are illustrated by the case of malaria, which was almost eradicated in the Soviet period. Only 20 cases of Plasmodium vivax malaria were reported in 1990 but this rose to over 13 000 in 1996. By the end of the 1990s the rate had returned towards its earlier level, although transmission continues in some areas *(17)*. The malaria outbreak in the early 1990s was due to a combination of factors such as weakened prevention and control programmes in the early stages of independence, the insecure situation in the south-western part of the country following the Nagorno-Karabakh conflict and the resulting displacement of the resident population, along with deteriorating socioeconomic conditions and the high mobility of the population living in the southern part of the country *(18)*. Like many other countries in the region, Azerbaijan also experienced a resurgence of other communicable diseases, such as tuberculosis and diphtheria, with the reported tuberculosis incidence almost doubling during the 1990s, rising from 37.3/100 000 in 1990 to 62.9/100 000 in 2002 *(6)*, although the true scale of the problem is likely to be somewhat greater. Azerbaijan, along with other former Soviet countries, suffered a major diphtheria outbreak in the early 1990s *(6)*. There has also been an increase in the incidence of sexually transmitted diseases since independence, albeit at a low level. For example the reported incidence of syphillis increased threefold from 2.7 per 100 000 population in 1990 to 7.2 per 100 000 in 1999 *(6)*, again this is likely to be an underestimate because of underreporting *(19)*. Available data also suggest that levels of HIV/AIDS are relatively low, with a cumulative total of 556 people living with HIV reported by July 2003 *(20)*. However, sustained levels of poverty in Azerbaijan as well as its proximity to Afghanistan (heroin production and trafficking) creates conditions that make the country vulnerable to the further spread of HIV.

Most data are available on child health, derived primarily from the 2000 UNICEF MICS survey *(9)*. This reported that just over a quarter of children aged under five were underweight or severely underweight. Children in internally displaced families were particularly at risk of diarrhoea, an important contributor to the burden of ill health in the country. Over a quarter of internally displaced children had suffered diarrhoea in the two weeks prior to the survey. About a quarter of the population are without access to safe water *(9)*. Previously eliminated problems also re-emerged following independence e.g. iodine deficiency disorders re-occurred as the programme of salt iodization broke down, although this is now being tackled. One area of success is the eradication of polio. Having suffered the largest number of cases of polio in the European region in 1990, intensive efforts led to the achievement of polio-free status in 1996 *(16)*.

Socioeconomic indicators

The collapse of the Soviet Union has had a major impact on economic and social indicators in Azerbaijan. Intense political, military and financial turmoil in the early years of independence alongside the inefficient and often crumbling remains of the Soviet-era state systems prevented the implementation of reforms in most areas and made any prospect of immediate economic prosperity almost impossible. The military conflict in Nagorno-Karabakh put substantial strain on the health and social services *(21)*. Efforts to implement a thoroughgoing economic reform programme began only in 1995, following the 1994 ceasefire negotiated in the Karabakh conflict. After six successive years of decline, measured GDP stood at only 34% of its 1988 value by the end of 1995 *(22)*. However, Azerbaijan's growth rates have accelerated gradually; inflation has fallen progressively from over 1600% in 1994 to about 2–3% in 2002. Notwithstanding the impressive macroeconomic performance in terms of growth, especially in the 2000s, in 2000 real GDP was still only 55% of the 1990 level. At a GNI of US $710 in 2002 Azerbaijan is considered to be a low income country (23). This compares to a regional average GNI of US $2160 in central and south-eastern Europe and the former Soviet Union and US $20 230 in the members of the European Monetary Union. A new currency, the Azerbaijani manat (AZM), was introduced initially as parallel coupon currency to the Russian rouble in 1992. In January 1994, the manat became the sole legal tender and has remained broadly stable in recent years, at approximately AZM 4880 to the US $ in 2002 (€5170).

In 1994, Azerbaijan signed a major contract with western oil companies to develop offshore oil deposits in the Caspian Sea. Although worth around US $7 billion, and known in Azerbaijan as the 'contract of the century', as in its

oil-rich neighbours in central Asia this has not led to significant benefits for the social sector. In December 1999, the State Oil Fund of the Azerbaijan Republic (SOFAR) was created to manage current and anticipated state revenues from the country's oil and gas contracts, designed to support human development and promotion of the non-oil sector. Recently, funds have been used to support refugees and internally displaced people *(2)*. Overall, the economy continues to be highly dependent on oil and gas-related activities, especially industrial production and export, contributing more than 30% of GDP in 2001 *(22)*. Further diversification into the non-oil sector is facing considerable challenges due to widespread problems of governance, although there has been some improvement recently *(24)*. Further obstacles relate to an inadequate legal/ regulatory environment and weak enforcement of laws and regulations as well as an underdeveloped infrastructure and lack of access to financing.

Transition had a serious and long-term impact on the income and well-being of the population. In 2001, Azerbaijan scored 0.744 on the Human Development Index and, at rank 89, was grouped among countries with medium level development, on a par with Georgia (rank 88) but lower than the Russian Federation, which ranked 63rd *(14)*. This reflects relatively low life expectancy and sizeable levels of poverty whereas officially reported adult literacy and educational attainment have remained high. According to official data, the employment ratio has changed very little during the past decade, with official unemployment figures given at just over 1% *(11)*. However, the 1999 census recorded a substantially higher unemployment rate of about 16%,[2] with more recent estimates ranging between 11% and 12% *(24,25)*. Unemployment levels were found to be higher among women and in urban areas; however the highest levels were found among the young with nearly 70% of the unemployed in Azerbaijan being under the age of 35 *(25)*. The fall in economic output was also reflected by a substantial fall in average real wages in the public sector, to only 15% of the 1989 level in 1995, subsequently rising to about 50% of the 1989 level. Yet while most people in Azerbaijan have been affected by economic decline, some have suffered more than others. Thus, inequality in earnings has almost doubled since 1989, with a Gini coefficient for the distribution of monthly earnings at 0.501 in 2001. However, income from waged employment comprises only about 44% of monthly per capita income in Azerbaijan now *(24)*. A considerable proportion of economic activity takes place in the informal sector, recent figures estimating this to be about 60% of the total economy *(26)*.

[2] Unemployment as defined by the International Labour Organization (ILO): unemployed people are those who are either out of work, want a job, have actively sought work in the previous four weeks, and are available to start work within the next fortnight, or are out of work and have accepted a job that they are waiting to start in the next fortnight.

Table 4. Selected social and economic indicators, 1990–2002

	1990	1995	1996	1997	1998	1999	2000	2001	2002
GDP annual growth (%)	–11.7	–11.8	1.3	5.8	10.0	7.4	11.1	9.9	8.5
GDP per capita (US $)	–	313	407	503	559	572	653	706	742[c]
Employment ratio	68.8	81.5	79.9	80.4	79.5	78.9	77.9		
Real wages[a] (1989=100)	101.1	13.9	16.6	25.5	30.5	36.5	43.2	49.9	–
Gini coefficient (earnings)	0.275[b]	0.459	0.458	0.462	0.462	–	0.506	0.501	–

Sources: UNICEF *(11)*, EBRD *(22)*, Falkingham *(26)*.
Notes: [a] public sector only, [b] 1989, [c] estimate.

Since 1990 many households have experienced increasingly severe economic hardship. In 1990, a typical Azerbaijani family spent about 46% of its disposable income on food. Today it is estimated that they must spend on average 70% of their disposable income to meet basic nutritional needs *(8)*. A survey of social and economic security among some 1600 persons aged 16+, undertaken in May/June 2003, showed that at least 50% of respondents considered their income to be insufficient to meet their needs for foodstuffs, accommodation, medical care or clothing *(27)*. Those working in the agricultural sector; in non-production sectors such as education, health services and public administration; and the unemployed, were particularly affected. Between 79% and 89% of these respondents stated that their income was inadequate to meet their needs for medical care. Although a limited representation of the entire country, the survey supports other evidence that a substantial proportion of the population in Azerbaijan still faces numerous challenges in 'making ends meet'. In fact it has been estimated that in 2001 almost 4 million people, half the population, were living in poverty, consuming less then AZM 120 000 per capita per month (US $25), the suggested minimum income for guaranteeing sufficient daily caloric intake and including allowances for basic services *(24)*. One third of these (over 15% of the total population) lived in extreme poverty, with a consumption level of less than AZM 72 000 per capita per month (US $15). Available data also suggest that income poverty appears to be an increasingly urban phenomenon, the majority of the poor now living in urban areas where poverty is related to limited employment opportunities in the formal economy *(24)*. Internally displaced people (IDPs) appear to be of particular concern. Most of the displaced in Azerbaijan have settled in areas close to the ceasefire line (IDP belt) while one third have moved to the capital, Baku. Poor living conditions, with inadequate shelter and insufficient access to water and sanitation facilities, have been exacerbated by limited access to cultivable land and, more generally,

economic opportunities. It was surprising, therefore, when a 2002 household survey of the living conditions of IDPs contradicted these earlier findings and indicated that collectively they did not appear to have significantly lower incomes than other groups in Azeri society *(24)*. It did identify subgroups at higher risk of poverty, especially IDPs in Baku who tended to be significantly worse off than other residents. These unexpected findings have been attributed, in part, to the effects of increasing governmental assistance over the last few years ("bread money"). Still, IDPs remain more vulnerable to poverty due to the uncertainty and fragility of different sources of income, for example, being twice as likely to be unemployed.

Overall trends in poverty are difficult to assess, due to limited comparability of the different surveys that have been undertaken. In view of trends in consumption and general economic growth since 1995 it is assumed that the extent of absolute poverty may have decreased somewhat recently. However, at the same time there is some evidence that income inequality has increased since 1999 *(24)*. Thus, poverty and inequality remain a significant concern.

Recognizing the complexity of transition and the substantial challenges the country has been facing over the decade following the break-up of the Soviet Union, Azerbaijan has joined the CIS-7 Initiative, launched in April 2002 and sponsored by the IMF, World Bank, European Bank for Reconstruction and Development (EBRD), Asian Development Bank and a group of bilateral donors *(28)*. A major aim of the initiative is to assist the CIS-7 countries to implement poverty reduction strategies. In cooperation with all relevant stakeholders, the government prepared a comprehensive State Programme on Poverty Reduction and Economic Development (SPPRED) that was officially launched on 25 October 2002 and approved by Presidential Decree on 2 February 2003 *(29)*. This programme, the country's first medium-term development strategy, will cover policy actions and the financing of various projects in a range of areas including social protection, health, education, refugees and IDPs *(22)*. The investments are expected to be financed mainly by domestic sources, with the State Oil Fund a major source of funding. The government has also adopted the Millenium Development Goals as their long-term poverty reduction goals.

Historical background

Until independence in 1991, the Ministry of Health in Azerbaijan simply administered policies that had been made in Moscow, as part of a centrally organized hierarchical structure. The Soviet health system was state owned and centrally planned and managed. Services were intended to be free and accessible

to the whole population. The strengths of the Soviet health system were wide coverage of the population, the development of expanded programmes of immunisation, availability of healthcare facilities in even small villages and remote areas, an emphasis on free care with strong governmental support (subsidies) for drugs, development of highly specialized health services, and the establishment and promotion of academic medical institutions. However, it had many weaknesses too *(30)*. While providing extensive basic care, the Soviet Union was unable to develop the new forms of treatment introduced in the west from the mid-1960s onwards. The Soviet pharmaceutical sector was underdeveloped with most drugs being imported from eastern Europe or India. The Soviet model of medical training produced large numbers of physicians but most had very limited skills. The Soviet system of science, based on hierarchies and tradition, fell increasingly far behind and consequently did not achieve the reductions in many treatable causes of death seen in the west in the latter part of the 20th century.

The health care system was rigidly hierarchical with financial and other allocations based on national norms rather than any assessment of local need. These norms emphasized scale rather than quality, creating extensive but poorly equipped hospital sectors. The low cost of labour and the high cost of technology – to the extent that it was available at all – meant that the system was extremely labour intensive. Over 70% of budgetary allocations were spent on hospital services and the highest quality of care was provided in cities at the expense of facilities in rural areas.

Following independence in 1991, the health system faced increasingly serious economic challenges. Quality and access to services deteriorated even further in many areas and a combination of inherited rigidities and limited managerial capacity made change difficult. The current structure of the health system remains largely the same as that inherited from the Soviet Union. The focus on hospital provision which characterized the Soviet model has persisted although it is now seen as inappropriate to meet the health needs of the population post-independence. While access to the health system for all was a key feature of the Soviet model, severe lack of funding and the resultant informal payments by patients have effectively reduced access to healthcare for large parts of the population. The situation has been exacerbated by the disruption of Soviet systems of pharmaceutical and equipment supply following the breakdown of trading relations after independence. The government is now trying to address some of these issues with a number of pilot health reform projects that focus on developing primary care and promoting efficient use of resources. A limited number of health facilities have been privatized but the state remains a monopoly provider.

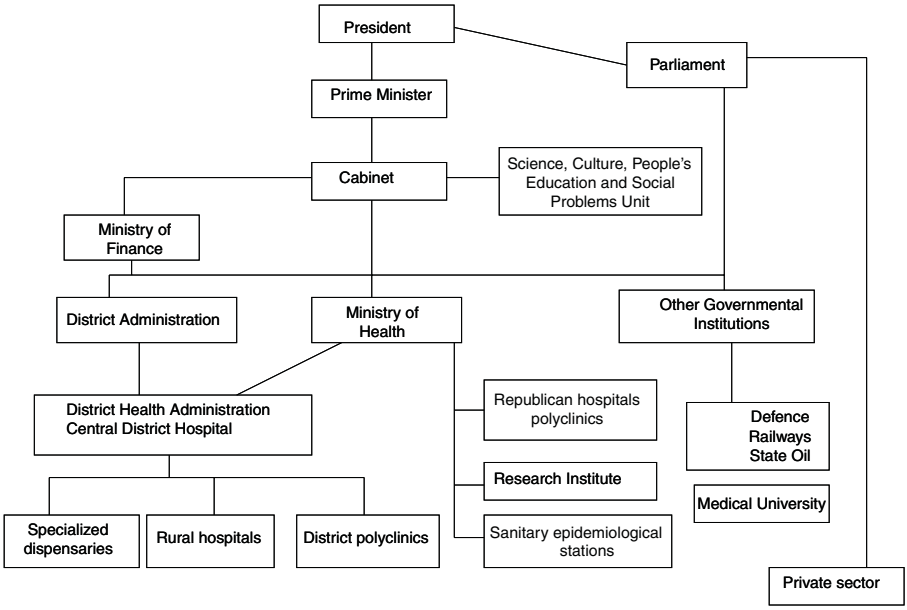
Organizational structure and management

Organizational structure of the health care system

Ensuring health care for the population is one of the key functions of the state set out in the 1995 constitution. Article 41 states, "the state takes all necessary measures for development of all forms of health services based on various forms of property, guarantees sanitary-epidemiological safety, creates possibilities for various forms of medical insurance." The overall structure of the health system remains largely that of the Soviet era. However, similar to other smaller former Soviet republics, there is no oblast (regional) tier. There is some private provision but most services continue to be provided by the state. Health care provision is, largely, divided between the Ministry of Health and local authorities. The Ministry of Health owns the central institutions and some other facilities including republican hospitals, research institutes and the sanitary epidemiology system, responsible for environmental health and communicable disease control. District administrations and cities own local hospitals, district polyclinics and specialist dispensaries. In addition, other ministries run parallel health services, including the Ministries of Railways, Defence and Oil respectively. It is estimated that these serve around 5% of the population. The Medical University was the responsibility of the Ministry of Health but in the years following independence it was granted autonomy.

Similar to other former Soviet republics, systems of accountability are complicated by the division of financial and health policy matters. District health administrations are accountable to the Ministry of Health for health care delivery but are financially dependent on funds allocated by district administrations, which, in turn, are allocated local budgets from the Ministry of Finance. On average, about 25% of public funding for health care is allocated to the Ministry of Health while the remaining 75% is managed at district level

Fig. 2 Organizational chart of health care system



and in the parallel services *(8)* (see *Health care finance and expenditure*). Until recently, the Ministry of Health was not formally aware of the scale of expenditure at district level.

The Ministry of Finance is responsible for determining the health care sector budget, heavily influenced by the president and parliament. In turn, their decisions are influenced by the Science, Culture, People's Education and Social Problems Unit attached to the Cabinet. This unit has no formal links with the Ministry of Health, thus constraining its autonomy to some extent. The parliament also establishes the rules under which the private sector is permitted to operate.

Nongovernmental (NGOs) and multilateral organizations also play a role in the provision of health care and provide input into policy development. NGOs are particularly important in providing health care in areas with large numbers of internally displaced people and refugees. In addition some agencies, such as UNICEF and the International Medical Corps (IMC), have worked with the Ministry of Health to pilot new forms of health care provision.

Planning, regulation and management

Although the Ministry of Health and the Ministry of Economy formally undertake health planning, the Ministry of Health has no specific planning department. Rather, each office within the Ministry prepares plans in its own areas. Planning is dominated by discussions about major capital developments, focused on specialized health care facilities. As part of the health reform process, it is anticipated that planning will become decentralized.

Despite the Ministry of Health's limited scope to intervene in the delivery of health care outside its own facilities, it has an extensive range of formal responsibilities encompassing planning, regulation and management of the entire health system, including that of the Nakhichevan Autonomous Republic. In addition, it is formally responsible for the development and implementation of health care legislation and regulation although, as already noted, health policy is largely driven by the Science, Culture, People's Education and Social Problems Unit attached to the Cabinet.

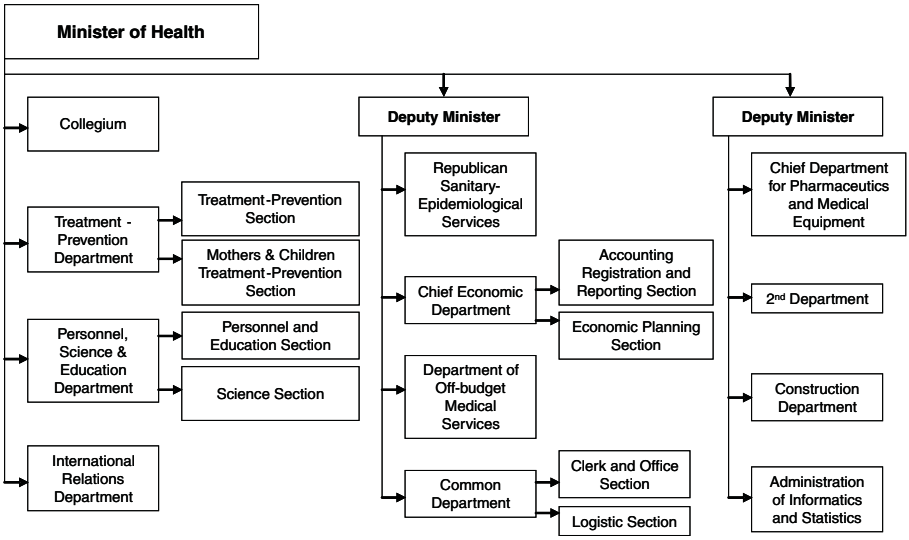
The Ministry of Health is also required to undertake health needs assessment and propose the health sector budget. In practice, its activities focus on developing norms, such as national standards for the quality and volume of health services. It is also responsible for licensing pharmaceuticals and coordinating international aid in the health care sector. The Ministry of Health has a role in monitoring health care quality and population health, although its scope is greatly constrained by the poor quality of data noted earlier, and is responsible for licensing and regulating physicians and hospitals. The Medical University is formally autonomous but is constrained as the Ministry of Health contributes to identifying priorities for medical research and develops the curricula for training health professionals. Although Medical University autonomy has reduced the Ministry of Health's role in workforce planning, little has changed in practice.

District health administrations are responsible for the planning and delivery of health services in their districts. The Ministry of Health appoints district health administrators, in consultation with the district administrations.

Although the formal structure of governance is highly centralized and hierarchical, in practice it is highly fragmented. The Ministry of Health is ultimately responsible for the management of much of the health care system yet has limited levers of influence over local hospitals as they are financially dependent on district administrations. These complex lines of accountability complicate the task of local health care managers, while the Ministry of Health is constrained by its limited influence over, or even knowledge about, what happens in the majority of health care facilities in the country. The ability of

different parts of the system to work together is further constrained by the lack of management training among health care staff; modern management methods have yet to be implemented in much of the health system. This has several consequences. Potentially useful information from different parts of the system is not used and there is a reluctance to report adverse results lest staff incur penalties. This makes it difficult to identify problems or to redirect resources to respond to them.

Fig. 3. Organizational structure of the Ministry of Health



Decentralization of the health care system

The health sector essentially has retained the centralized Soviet structure. While district administrations play a major role in managing the local healthcare budget their scope for innovation is constrained by the rigid line-item budget structure of the Ministry of Finance. Local management flexibility is also somewhat restricted since the Ministry of Health controls all senior appointments at district level.

The majority of health care facilities in Azerbaijan remain in state ownership although a number of facilities have been privatized. However, this privatization was, strictly speaking, more like a disengagement of the state from old cost-incurring facilities of secondary nature. Thus, in 2003, the government privatized about 350 health care facilities - mostly small dental practices that inherited facilities and equipment. A substantial number have experienced financial difficulties, often going out of business. In addition, many of these facilities have been unable to pay taxes or utility bills due to financial constraints.

Health care financing and expenditure

Main system of financing and coverage

Financing arrangements also remain much as in the Soviet period: the state is both the purchaser and provider of health services. Officially, the main source of funds is general government revenues from taxation, excise duties etc. The formal funding system is set out in Article 9 of the law 'About Protection of Health of the Population' (1997) *(31)*. This states that the health system shall be financed from the state budget, funds received from mandatory health insurance, voluntary allocations from the profits of institutions, agencies and organizations, donations from legal and physical persons and other sources not explicitly prohibited by the legislation. Yet while mandatory health insurance is mentioned in the law it has not been introduced thus far. As noted earlier, most health facilities still are public property. Government budgets therefore remain the major official source of health care finance: in 2000 78% was based on the local budget supervised by the district health administrations, the remaining 22% on the central (Republican) budget from the Ministry of Health. The Ministry of Finance pays the local budget directly to the local authorities. In addition to this funding, state funding for health care is also channelled through those government departments that provide health care to their employees, including the railways, military and the State Oil Company. With the possible exception of the military, whose budget is unknown, these are generally small enterprises, together representing probably around 2% of Ministry of Health expenditure *(8)*.

The post-independence economic decline led to a significant fall in state income, with a substantial impact on health care funding. As will be seen later, there was a drop in health care expenditure as both a percentage of GDP and as a share in total government spending during the 1990s. In response to the shortage

of public funds in the health care sector the government introduced charges for some types of health care with the law 'About Protection of Health of the Population'. According to Article 3 of the law the state accepts responsibility to finance health services. It is intended to pay for all aspects of the health system except those services listed as subject to direct payments by patients. In reality, however, the state is unable to meet its obligations. So many people must now pay informally for health care that the health care system can be considered to be funded by a 'public–private mix'. Officially, private health care funded through private insurance or self-paid is thought to make up about 5% of all health care funding.

Health care benefits and rationing

The 1995 constitution of Azerbaijan maintained the formal guarantees of access to health care as a citizen's right, stating in Article 41 that, "[E]veryone has the right for protection of his/her health and for medical care." These rights are further specified in the law on Protection of Health of the Population mentioned above and include the following *(31)*.[3]

- Citizens of the Republic of Azerbaijan shall have the right to health care and to receive medical aid. Medical care provided with the public health facilities shall be free of charge, except for cases provided for with this Law. Forms of special paid medical care shall be defined with the respective executive body.
- The state shall provide environmental protection, create comfortable conditions for work and recreation as well as ensure medical-and-sanitary and medical-and-social aid.
- Citizens shall have the right to receive regular and correct information about factors affecting health. This information shall be provided through the mass media or through the appropriate executive body directly based on mass media surveys.
- Children, teenagers, students, pregnant women, invalids and pensioners, those involved in sports, and most military personnel shall have the right to receive free medical care in state medical institutions.

Thus, health care is intended to be provided either free at the point of service or, for some designated services, on a fee-for-service basis. As shown in Box 1, a number of groups are being exempted from payment although there is no income-based cut-off.

[3] The wording of laws as given here and elsewhere in the text may differ slightly from the original wording due to translation.

Box 1. Health care services provided for free to all citizens

- Maternal health services: provided free to all women through the state health system during pregnancy, delivery and the post-partum period
- Child health care
- Family planning services
- Care for people working in certain hazardous situations, including those working in proximity to communicable disease
- Psychological care for family problems
- Prevention of certain hereditary diseases
- Vaccination against: tuberculosis, polio, diphtheria, tetanus, measles, mumps, rubella and hepatitis B
- Treatment of tuberculosis
- Treatment of malaria
- Diabetes care

Complementary sources of financing

Until 1998 tax revenues were, in theory, the main source of financing for the Azerbaijan health system. There was, however, extensive 'under the table' or informal payment, alongside some user charges that the government introduced in 1994 for medical services provided in specialized institutions. In 1998, the introduction of official charges for healthcare services allowed direct contributions from patients. These were designed, in part, to reduce informal charging. Until April 2003, 410 of 4310 health facilities (about 10%) charged official user fees. Following Decree No. 34 of the Ministry of Health of 1 April 2003 these were discontinued initially in 92 health facilities, then in 48 health facilities in Baku city and 2 in Sumgayit city from January 2004 (Decree No. 68 of the Collegium of the Ministry of Health, 27 November 2003).

Currently, general government revenues account for about 40% of overall health care expenditure. These funds are intended to pay for salaries, all health care for those exempted from charges and for services intended to be provided free (such as vaccination and other services listed in Box 1). However, in practice, these funds are insufficient to cover salaries at a level required to meet basic living standards or to finance the necessary infrastructure and pharmaceuticals.

Given the low contribution from official government funds, complementary sources of finance are critical for the functioning of the health care system and account for around 60% of financing in the sector *(8).* Patients' direct formal and informal payments had been estimated to constitute around 49% of total health expenditure by the end of the 1990s, but in 2001 this share was estimated

at 57% *(32)*. Informal charging has remained common despite the introduction of formal fees. Yet, in a country where average salaries are estimated to be about US $40 per month, even relatively small direct charges can create hurdles for many who need to access health care *(33)*. Thus, according to the earlier mentioned 2003 survey of employees at least two thirds of respondents reported that their income was inadequate to meet their needs for medical care *(27)*. The burden tends to be higher among the poor and poor households may reduce or postpone the use of health services, especially preventive care, knowing they have to pay. According to 2001 survey data, one in three households had been unable to use necessary health services mainly because they were too expensive *(24)*. Among the poor, this proportion was almost 40%.

Out-of-pocket payments

As noted above, direct out-of-pocket payments account for between 50% and 60% of overall health expenditure, these include both the formal user charges introduced in 1998 for listed services in governmental health facilities and informal under-the-table payments. There are several forms of informal fees, including semi-official charges for consumables such as drugs and medical supplies, fees for visiting patients, direct unofficial payments to doctors and other health care staff for services provided, and fees for positions obtained in medical institutions *(24)*. In addition, out-of-pocket payments also include private provider charges for goods and services and direct payments for non-prescription drugs and medical supplies sold by pharmacies. Fees are supposed to be standardized nationally but in practice there seems to be some variation between institutions. Formal fees are used for two principal purposes: to supplement salaries and purchase drugs. The actual co-payment has two components: one to the person providing the service and the other to the institution (that may also use the money to supplement salaries). Official charges are thought to generate about 10% of the local health budget.

Fees are charged for all services not included in the list of services to be provided free by the state. Services requiring a fee include some accident and emergency care (such as dislocations or the setting of a plaster cast). Charges range from around US $0.20 for an ‘injection’ to around US $70 for the service of a surgeon, a figure just under twice the average monthly salary. As already noted, some groups are exempt from charges (Box 2). As can be seen except for internationally displaced persons (IDPs) and refugees, poverty is not a criterion for exemption from formal payment. However, it is believed that anyone who cannot pay is exempted from the formal fee for service although they may be required to pay some informal fee, possibly at a reduced level.

Box 2. Groups exempted from official health care charges

- Servicemen and veterans of wars and their families
- Persons with physical disabilities
- Victims of Chernobyl
- People with diabetes
- Elderly persons without family
- Adolescents and military recruits
- Refugees and internally displaced persons (IDPs)
- Medical professionals
- Educational professionals
- Pensioners (above 65 for male, above 60 for female)
- Pregnant women and post-natal care

Although the level of official fees for outpatient services probably are affordable for the majority of the population, the lack of trained family practitioners means that patients may have to visit several specialists to obtain the necessary treatment. This will require more than one outpatient visit, which involves paying both formal and informal fees and can lead to serious financial problems. According to the 2003 World Bank Poverty Assessment report unofficial fees for service provision vary with the quality of services provided; thus charges for births can range between US $100–150 in smaller towns to US $500–700 in Baku hospitals – up to 18 times the average salary *(24).* Informal fees levied on the population are estimated to make up about 20% of all health expenditure.

Voluntary health insurance

Voluntary health insurance (VHI) was first introduced in Azerbaijan around 1995. At least two companies offer private insurance but it is generally very costly and usually purchased by expatriates or those in the oil industry. VHI covers approximately 15 000 people, equating to less than 0.1% of the total population. This probably saturates most of the current potential business market. As the oil economy continues to grow, it is likely that this sector will also expand.

One insurance company offers policies of between US $600 and US $800 per annum, to cover most co-payments but valid only in hospitals owned by the insurance company. Another private insurance company offers several policies, the cheapest of which is US $5000 per year. This covers most basic services, but excludes a number of important disease categories such as alcoholism, cancer, venereal diseases, tuberculosis, diabetes and others. More extensive

packages, including medical evacuation to Turkey or the Russian Federation, are available for up to US $17 000 per year. Services are provided through a network of private and governmental hospitals. Considering the average monthly salary in Azerbaijan, private health care services and insurance are far beyond the means of most people and, at least in the first seven years of operation, it appears that insurance companies have not considered that there is a viable market among the general population.

External sources of funding

Internally displaced persons and refugees received considerable external assistance during the late 1990s, but after 10 years donor weariness has set in and support is diminishing. Recently Azerbaijan has not enjoyed massive external funding although limited funds have supported a number of innovative health related projects over the past few years and there are prospects for this to increase. In 1995 UNICEF began a primary care project in Quba district and in 2001 a World Bank project extended the project into another five districts. Since 1998, USAID has funded the Azerbaijan Humanitarian Assistance Program (AHAP) (US $45 million; 1998–2005) part of which is designed to increase access to quality health services in conflict-affected communities *(34)*. This includes the International Medical Corps (IMC) working in southern Azerbaijan to develop new models for the provision of care. The World Bank Health Reform Project, which began at the end of 2001, is also providing funds to establish much of the groundwork required to improve the system. Most donor funds support primary health care, accounting for an estimated 25% of overall state expenditure at this level or about 10% of the overall Ministry of Health budget. However, it is difficult to be precise about donor funding levels.[4]

Health care expenditure

As noted earlier, health care expenditure in Azerbaijan has dropped both as a proportion of overall expenditure of GDP and in real terms since independence in 1991 (8). Keeping the many limitations of the data in mind: in 1991 an estimated 4.3% of GDP was allocated to health, falling by about a third to 1.2% in 1997, increasing slightly to 1.6% in 1999, but falling again to the current figure of just under 1%. In real terms, official health expenditure in Azerbaijan is very

[4] This equates approximately US $5 million per year of which US $3.63 million per year for three years will come from the World Bank. This is only for the PHC work and in the five project districts mentioned above; the remainder of the US $5.5 million project is being spent on capacity building including training, sector studies, etc.

low. It dropped from US $148 per person per year in 1991 to US $19 in 1997 *(6)*. Presently it is estimated at around US $25, far below the WHO European Region average of just over US $1341 (2001) *(6)*. This figure includes state and donor funding and direct payments by patients. Public health expenditure per capita has hovered at about US $6 for the past several years *(8)* (see *Annex*). Government expenditures are projected to remain relatively constant over the next few years and it seems unlikely that external sources will grow greatly. Opportunities for greater cost recovery from impoverished patients are small. Although the expanding oil sector should provide additional government resources this cannot be guaranteed.

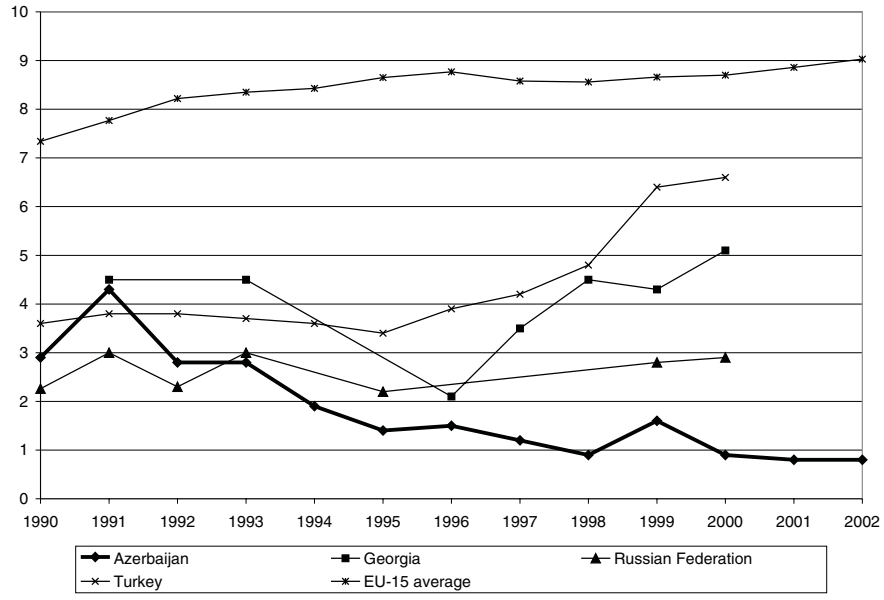
Table 5. Health care expenditure as a share of GDP

	1995	1996	1997	1998	1999	2000	2001	2002	2003
GDP (billion AZM)	10 669	13 663	15 791	17 203	18 875	23 591	26 619	29 703[a]	32 892[b]
Share of GDP allocated to health care (%)	1.4	1.5	1.2	0.9	1.6	0.9	0.8	0.8	–

Sources: WHO Regional Office for Europe health for all database, EBRD *(22)*.

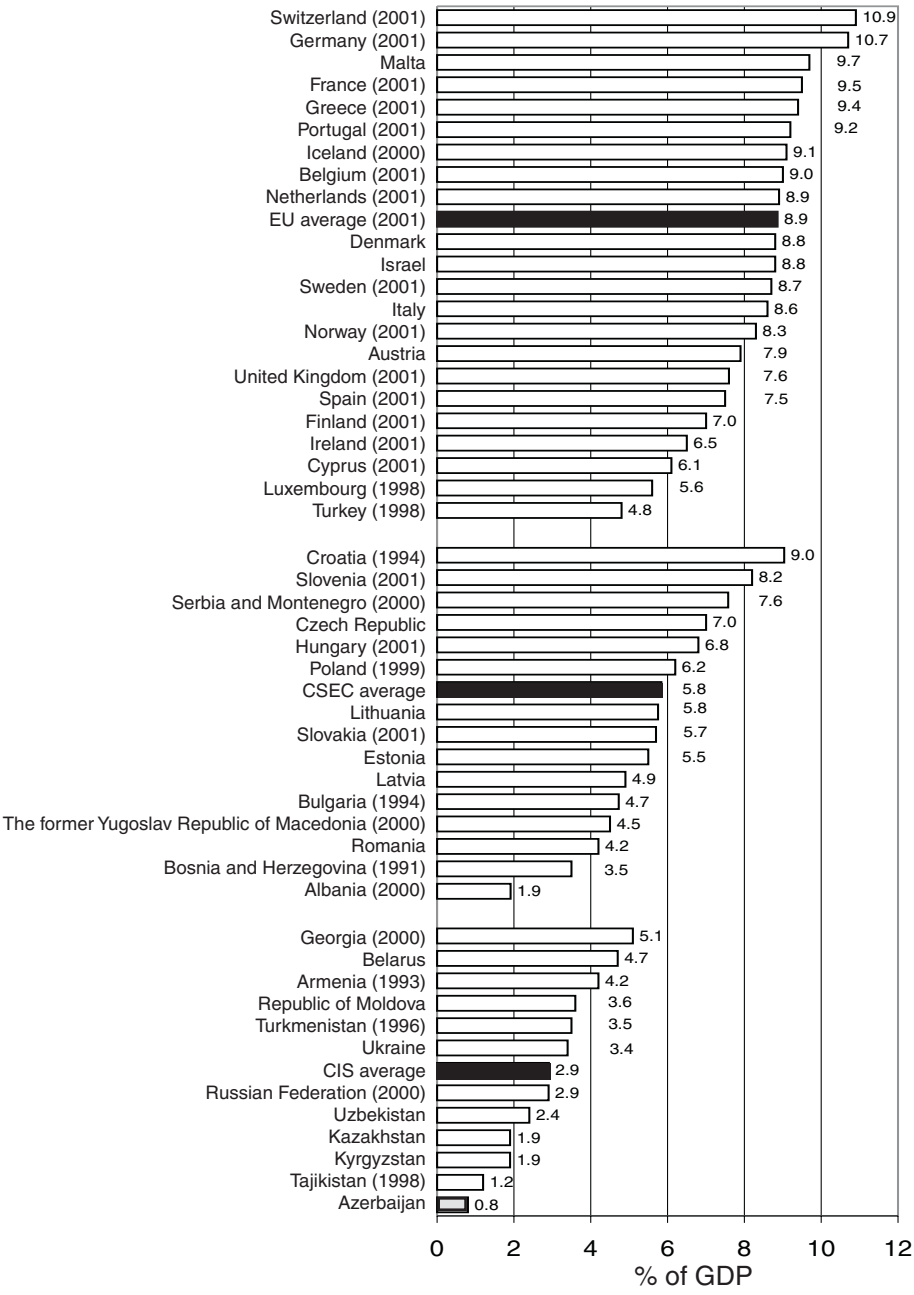
Notes: [a] estimate, [b] projection.

Fig. 4. Trends in total expenditure on health as % of GDP in Azerbaijan and selected countries, 1990–2002



Source: WHO Regional Office for Europe health for all database, June 2004.

Fig. 5. Total expenditure on health as a % of GDP in the WHO European Region, 2002 or latest available year (in parentheses)



Source: WHO Regional Office for Europe health for all database, January 2004.

Note: CIS: Commonwealth of independent states; CSEC: Central and south-eastern European countries; EU: European Union.

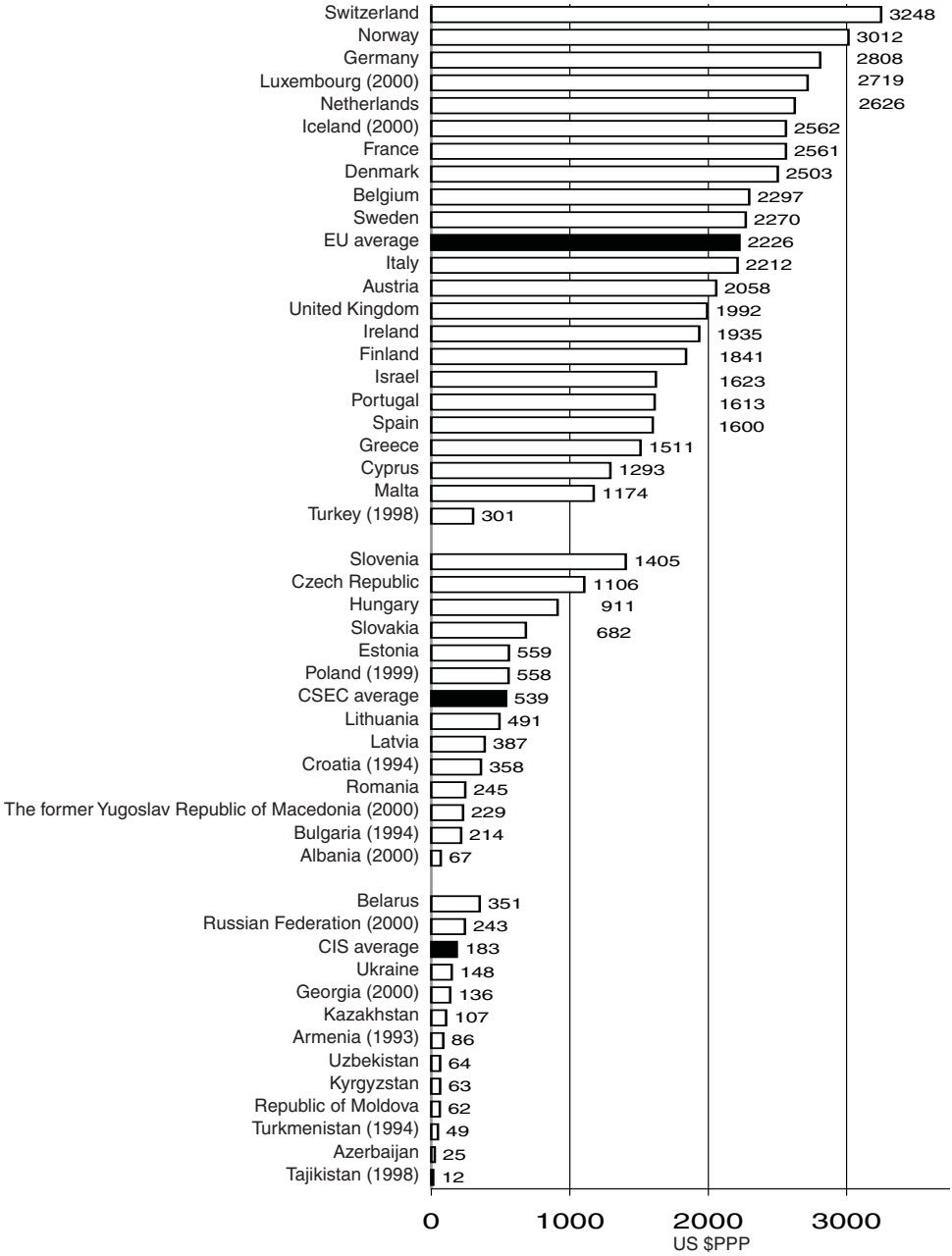
The share of health care spending in overall state expenditure fell from between 8% and 9% in the early 1990s to just over 5% in 2000. The 2000 figure can be compared with 24% for education and 18% for social protection and social security. The share of health care spending was predicted to rise to 8% in 2003. However, recent data from the State Statistical Committee suggest that this may not have been achieved; in 2002 actual health care expenditure was only AZM 224 billion, almost 100 billion less than projected *(35)*. Thus, the share of health care expenditure appears to have fallen further, to under 5% of overall public expenditure. Yet while the health budget is relatively low compared to other sectors, it does not use all its allocated funds. For example, in 1999 it spent 83% of allocated funds and only about 64% of the pharmaceutical budget.

Table 6. Government annual expenditure (billion manat)

	Actual						Forecast		
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Education	376	509	564	570	795	905 (23.7%)	1 011	1 092	1 198
Health	148 (6.8%)	201 (8.3%)	194 (6.6%)	156 (5.9%)	186 (5.7%)	203 (5.3%)	272 (7.6%)	321 (7.7%)	373 (8.0%)
Agriculture, fishery and forestry	0	0	139	82	155	170 (4.45%)	202	204	218
Social protection and social security	183	353	524	617	604	697 (18.3%)	736	917	1 065
Memo: social protection fund	534	787	842	947	1 131	1 309 (34.3%)	1 350	1 637	1 793
Total government expenditures	2 150	2 409	2 943	2 642	3 257	3 819	3 571	4 171	4 647

Source: Macroeconomic Policy Group, Ministry of Finance (2002).

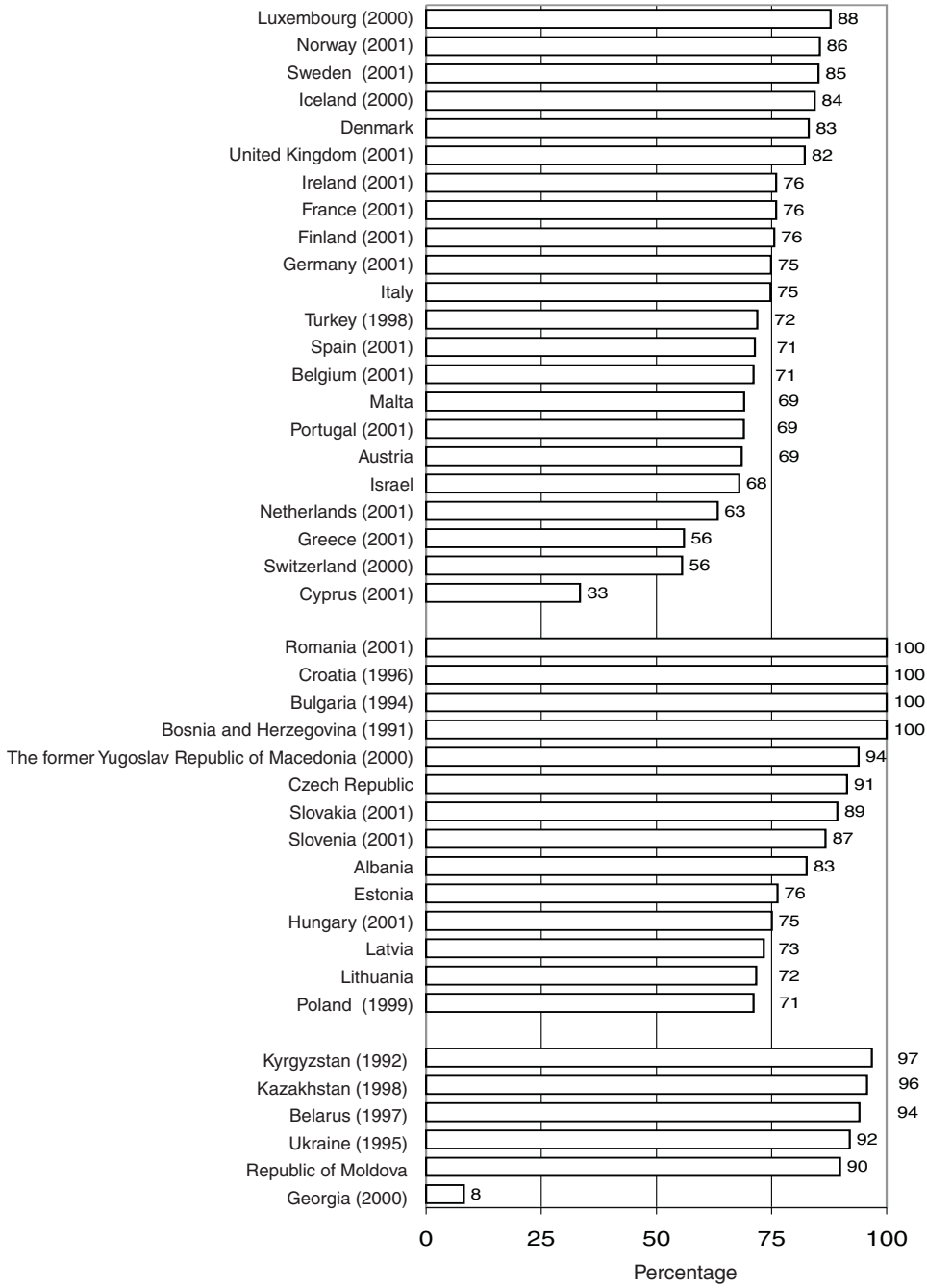
Fig. 6. Health care expenditure in US $PPP per capita in the WHO European Region, 2001 or latest available year (in parentheses)



Source: WHO Regional Office for Europe health for all database, January 2004.

Note: CIS: Commonwealth of independent states; CSEC: Central and south-eastern European countries; EU: European Union.

Fig. 7. Health care expenditure from public sources as a percentage of total health care expenditure in countries in the WHO European Region, 2002 or latest available year (in parentheses)



Source: WHO Regional Office for Europe health for all database, January 2004.
Note: no data available for Azerbaijan.

Structure of governmental health care expenditure

In 2000, hospitals received the greatest share of health care funding, about 62% of resources. Primary care received about 29% (includes public health activities), 'other' activities received 9%. These figures do not include donor funds. External resources generally are aimed at primary care, adding approximately 30–40%, rather than the hospital sector *(8)*. Within the health budget, the bulk of expenditure is allocated to salaries (46%). If 'full' salaries (meeting minimum living standards) were paid, it is estimated that the whole state budget would have to be allocated to this item. An 'other' category, which includes funding for renovations and the purchase of equipment, receives 18%. 'Drugs and supplies' receive 8% and 'writing materials and other goods' 18%. The relatively low amount of the budget allocated to pharmaceuticals probably reflects the fact that most drugs must be purchased directly by patients *(8)*.

Table 7. Health care expenditure by categories (as % of total expenditure on health), 1995–2001

Total expenditure on	1995	1996	1997	1998	1999	2000	2001	2002
Inpatient care	56.1	51.7	58.7	59.2	60.9	61.8	–	–
Pharmaceuticals	9.8	9.7	14.4	17.9	17.3	16.5	12.5	9.9
Capital investment	0.7	0.5	0.8	6.3	3.1	3.6	5	2.5

Source: WHO Regional Office for Europe health for all database.

Health care delivery system

The health care network inherited from Soviet times is extensive. It encompasses approximately 2350 stand-alone facilities,[5] ranging from small feldsher-led outpatient posts to large hospitals. In 2002, there were 735 hospitals in Azerbaijan. With the exception of the Clinical Hospital of Baku, most are not very large *(16)*. Approximately 2% of the hospitals and health posts (not including dentists) are in private ownership.

Table 8. Health care facilities in Azerbaijan

	1995	1996	1997	1998	1999	2000	2001	2002
Pharmacies	1 654	1 581	1 248	1 240	1 275	1 400	1 427	1 615
Number of hospitals	768	763	759	746	739	735	735	735
Number of ambulance–polyclinic service organizations (ambulatories and polyclinics)	1 779	1 722	1 694	1 630	1 611	1 614	1 618	1 620

Source: State Statistical Committee of the Republic of Azerbaijan.

Primary health care and public health services

Except for the few donor-led pilot projects mentioned previously, primary care provision in Azerbaijan adheres to the Soviet model in many respects. As in other former Soviet republics, the concept of integrated primary health care has not been developed. Patients may have their first point of contact with health care

[5] The figure of 4310 health care facilities mentioned in the section *Complementary sources of financing* refers to the total number of facilities in 2003, including private, state, in- and outpatient departments in hospitals, clinics, etc.

services in a range of settings. Typically, for those in employment this will be a facility at the workplace while others, including mothers and children, will seek care in geographically defined facilities with the choice determined largely by proximity. Factories and large companies often maintain their own feldsher unit or ambulatory clinic. At village level, basic care is provided through feldsher aid posts (FAPs), ambulatory clinics and rural hospitals. In rural districts and cities there are central district (town) or municipal hospitals and polyclinics. According to latest available data, there were 1830 FAPs, approximately 360 SUBs (rural district hospitals), approximately 680 SVAs (rural medical ambulatories) and 112 district polyclinics in Azerbaijan. FAPs, ambulatories and polyclinics in the Soviet era were planned according to population-based norms. In addition, in 2002 there were 40 public dental polyclinics. However, only some of the 2250 dentists 16 work in these public facilities, many run their own private clinics as is evident from the multitude of signs advertising dental services in urban areas.

Since 1997 patients have, formally, had free choice of physician (law: About Protection of Health of the Population). This marked a change from the Soviet model of care under which patients were allocated a physician through which most health care was to be accessed and where primary care facilities were a means to access higher levels of care. In many cases, the main activity of primary care facilities is to refer patients rather than providing primary care services. Although in theory patients have a more flexible primary care service, in practice they face a number of problems and many patients choose to bypass this level by going directly to hospitals. For the poorest in the population, basic primary care services may be beyond financial reach; instead they may be led to seek untrained help or forgo services altogether.

The challenges facing primary care are extensive but not insurmountable. In remote areas, especially in the mountains, the main problem is the lack of service provision. On a more general level, primary care is characterized by low quality as there is no tradition of training in family medicine. Continuity of care is also poor as patients often are seen by different doctors during successive visits. Quality of care is compromised further by poor laboratory services, with facilities frequently lacking diagnostic kits and functioning equipment. Many facilities encounter shortages of drugs and supplies and their equipment is outdated *(36)*. A study undertaken in southern Azerbaijan found that by the end of the 1990s 70% of facilities included in the survey lacked basic requirements such as a clean piped water supply *(37)*. In addition, erratic power supplies obstruct the ability to conduct immunization programmes and other services that depend on refrigeration. Facilities are deteriorating due to lack of funds for maintenance. As noted earlier, extensive informal payments are likely to deter people from seeking primary care and it has been estimated

that less than 40% of the poor receive basic antenatal care compared to over 80% of the rich *(9)*.

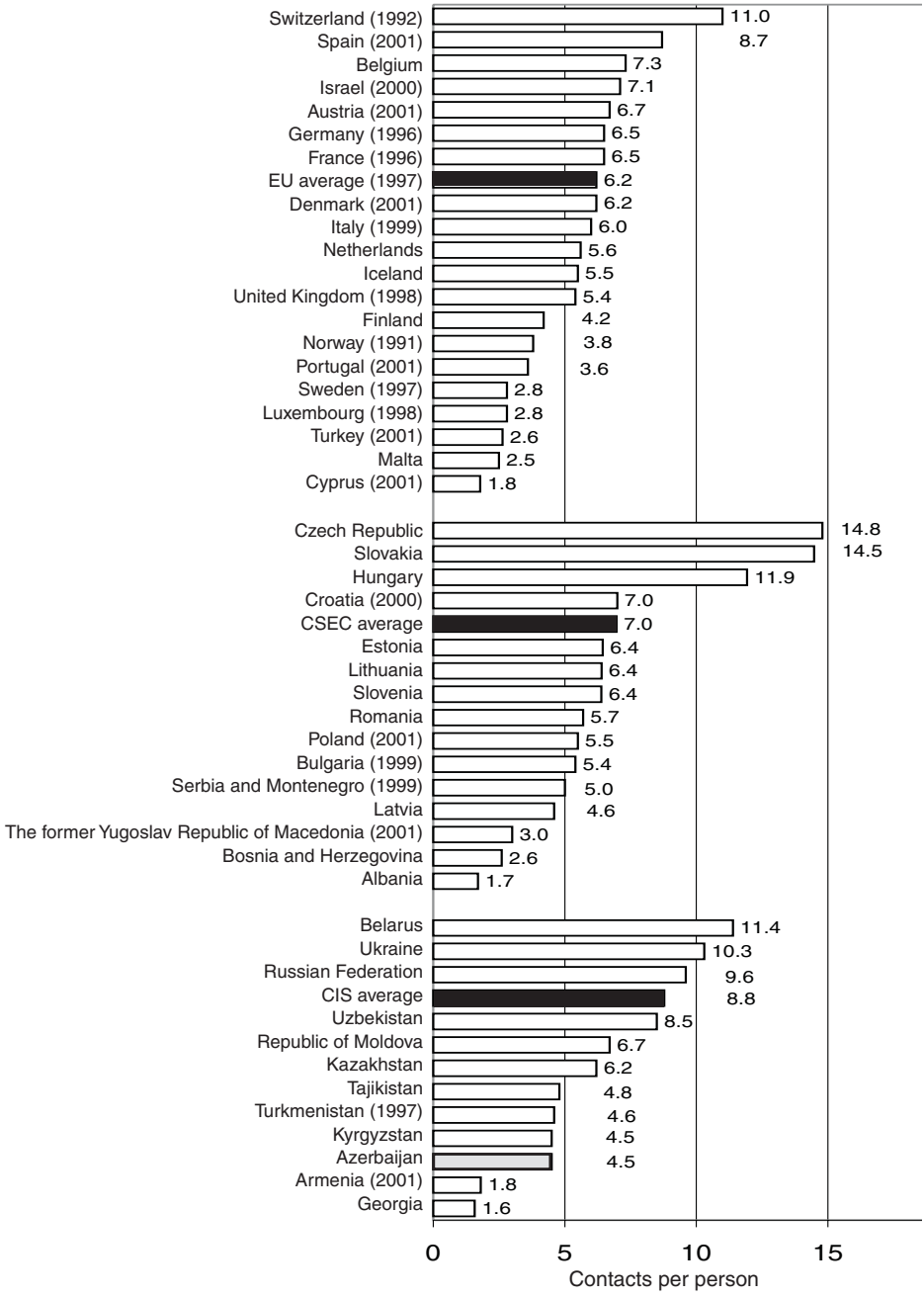
Despite its many weaknesses primary care is heavily staffed, with over-capacity of both staff and physical facilities throughout the system, in urban and rural areas. Lagging behind many other former Soviet republics, Azerbaijan has not embarked on a national level development of integrated family medicine. With few exceptions all medical services still are provided by specialists, requiring the presence of physicians of different specializations even where the population is small, resulting in very low productivity. To address some of these issues Azerbaijan is piloting a number of innovative primary care projects to enhance the quality and accessibility of primary care, with the support of UNICEF, the World Bank and the International Medical Corps (IMC). In 1995 the Ministry of Health and UNICEF initiated a pilot project in Quba that was extended to cover four additional districts (Masalli, Lankaran, Calilabad and Neftcala). These efforts have led to a follow-on Health Reform Project supported by the World Bank, which is jointly implemented by the Ministry of Health and UNICEF (see *Health Care Reforms*).

Another innovative project was the Community Based Primary Health Care Program run by the IMC (2000–2003) in the southern part of the country. This project covered about 240 000 people and aimed to improve access to, as well as the quality and sustainability of, primary health care. The IMC project involved upgrading skills, developing training, upgrading facilities, developing management skills and mobilizing community participation in newly established Community Health Management Committees (CHMCs).

Azerbaijan inherited and retained the Soviet model of public health services. Through a large network of 82 San-Epid stations this Sanitary-Epidemiological Service provides bacteriology, parasitology, virology and environmental health laboratories. It is staffed by physicians who specialized in hygiene at undergraduate level and by sanitation technicians. The system has two basic functions: responsibility for environmental health through control and regulation of food and water safety and the control of infectious and parasitic diseases; organizing and monitoring immunization services, providing logistical support for immunizations administered at district facilities.

Official statistics show high immunization coverage but as in most former Soviet countries there is no information about the extent to which children are excluded from the denominator on grounds of co-existing illness or for other reasons. Official figures give 99% vaccination coverage in 1999 *(38).* Azerbaijan has participated in the regional and global efforts for polio eradication *(39),* helping the European Region to achieve polio free status in 2002. The most recent UNICEF MICS, as a complementary source of information on levels of

Fig. 8. Outpatient contacts per person in the WHO European Region, 2002 or latest available year (in parentheses)



Source: WHO Regional Office for Europe health for all database, January 2004.

Note: CIS: Commonwealth of independent states; CSEC: Central and south-eastern European countries; EU: European Union.

immunization, could not provide an estimate of coverage due to the very low use of child health cards (1.9%) as a means to record such vaccinations *(9)*. This finding must cast doubt on the official figures on coverage.

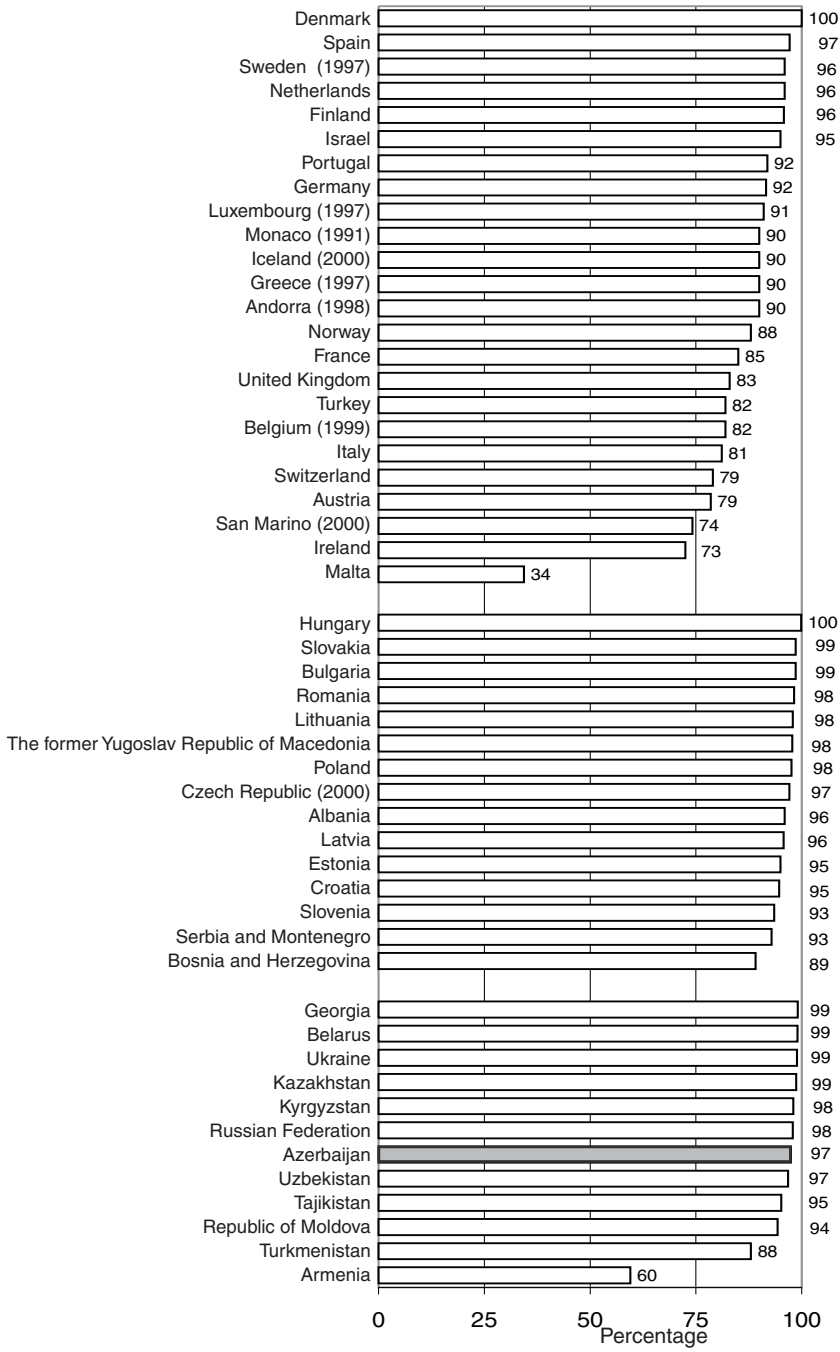
Health promotion and family planning services are the responsibility of the Ministry of Health, with family planning services designed to be the main provider of advice and supplies. However, supplies are limited in district primary care facilities that are most convenient for many people. A recent survey in southern Azerbaijan found that only 45% of facilities surveyed had a regular contraceptive supply available *(37)*. In recent years most family planning supplies have been provided through funding from USAID and channelled through UNFPA but this has been reduced greatly, reflecting the United States of America's ideological withdrawal from many family planning programmes. Although HIV prevention is now beginning to be addressed in Azerbaijan, UNICEF's 2000 MICS survey found that a large number of people were unaware of HIV or of methods to prevent transmission *(9)*.

Secondary and tertiary care

Secondary care includes both specialized ambulatory services and hospitals providing basic care (excluding long-term care institutions). Tertiary care includes facilities providing more complex, specialized health services. The Azerbaijani secondary and tertiary care sectors are large, accounting for about 65–70% of the overall health budget. There are approximately 735 hospitals in the country. In addition to the national (Republican) hospitals situated mainly in Baku, there are 63 central district hospitals with an average of 233 beds, and approximately 360 rural hospitals with an average of 32 beds. In addition, around 90 specialized dispensaries are each responsible for the management of a particular condition and providing both inpatient and specialist outpatient care. There are dispensaries for tuberculosis, dermatology and sexually transmitted diseases. Dispensaries exist in all major cities and in most districts. Specialized departments of general hospitals also provide secondary care. There are 21 teaching hospitals, all located in Baku, affiliated either to the State Medical University or the Medical Postgraduate Training Institute. Over 95% of hospitals are state owned and managed; there are at least 25 hospitals in the private sector.

One of the largest private sector entities is MediClub, a health maintenance organization (HMO) that offers a wide range of in- and outpatient services through six small hospitals scattered over Azerbaijan. Primarily it serves employees of the oil industry, embassies, international organizations, banks

Fig. 9. Levels of immunization for measles in the WHO European Region, 2002 or latest available year (in parentheses)



Source: WHO Regional Office for Europe health for all database, January 2004.

and other businesses. Although treating about 5000 walk-in patients, most services are directed towards the 4000 members who pay a fixed annual fee (recently US $200 for a family of four) which entitles them to reduced prices. However, the residual co-payments are still far beyond the economic abilities of most people in Azerbaijan.

In addition to the standard health facilities, there is a network of sanatoria. The sanatorium system was established to provide rehabilitation and post-discharge care and contains about 14 000 beds in 88 sanatoria and what are termed "rest establishments". Medical holiday hotels and 44 sanatoria provide about 11 000 beds. There are 18 inpatient infant medical sanatoria that have just over 1500 beds and 4 preventoria (with 65 beds), 13 rest-homes and holiday hotels (around 1000 beds) and 27 tourist centres and other rest establishments with around 2300 beds. Historically, either the Ministry of Health or the Ministry of Labour and Social Protection paid for care in the sanatorium system, depending on which ministry the sanatorium belonged to.

While recognizing the major limitations of crude numerical comparisons, Azerbaijan has a relatively high number of hospital beds per head of population compared to the EU-15 average. In 2002 the figure was 840 per 100 000

Table 9. Inpatient facility utilization and performance in acute care hospitals, 1997–2002

	1997	1998	1999	2000	2001	2002
Admissions per 100 population	5.62	–	4.66	4.7	4.74	4.71
Average length of stay in days	–	–	14.9	15.4	15.5	15.3
Occupancy rate (%)	–	–	30.0	28.5	25.7	25.6

Source: WHO Regional Office for Europe health for all database.

Table 10. Hospital beds, 1989–2002

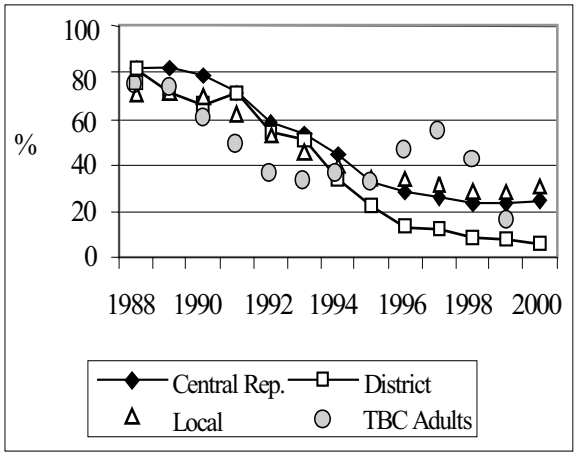
	1990	1995	1996	1997	1998	1999	2000	2001	2002
Total									
Number (1000)	70.9	74.6	73.5	72.4	71.7	71.1	69.9	69.0	68.7
Ministry of Health									
Number (1000)	68.3	68.5	67.5	66.9	66.6	65.9	64.7	64. 1	63.5
Per 10 000	94.6	88.7	86.5	84.9	83.8	82.2	80.1	79.0	77.7
Other public sector									
Number (1000)	2.6	6.1	6.0	5.5	5.1	5.2	5.2	4.9	5.2
Per 10 000	3.6	7.9	7.7	7.0	6.4	6.5	6.4	7.0	7.3

Sources: WHO Regional Office for Europe health for all database, Ministry of Health *(16).*

population compared to 725 in Europe as a whole and 611 in the European Union (2001) *(6).* Bed numbers have decreased since 1990 when the figure was 1010 beds per 100 000.

However, the use of beds as a measure of hospital capacity is even more misleading in Azerbaijan than in many other countries. Bed occupancy has fallen dramatically since independence. In the late 1980s bed occupancy was between 70% and 80% yet today the overall occupancy rate in republican hospitals is 33%, with almost exactly the same number of beds and a larger population. Bed occupancy in adult tuberculosis facilities plummeted to 17% in 1999. Occupancy rates in infectious disease hospitals for both adults and children are below 15% *(16)* (see also *Annex*). Furthermore, as already noted, lack of funds to pay health care professionals adequately or to provide the technology or pharmaceuticals required to deliver modern health care means that even those occupying beds often obtain little benefit. In interpreting the official figures it needs to be considered that the current bed capacity in Azerbaijan reflects the health care needs and planning of several decades ago and has, among others, failed to adapt to declining rates of many infectious diseases or changing approaches to ambulatory care (much past hospitalization being largely ineffective). Also, access to hospital care is now largely unaffordable for much of the population, illustrated by poorer people's reduced use of hospital obstetric services.

Fig. 10. Ministry of Health hospitals occupancy rates, 1988–2000



Source: Ministry of Health.

A national household survey undertaken in 1994 reported that the majority of patients were satisfied with the standards of inpatient services received where treatment was available. However, no recent data are available to show current opinion about inpatient services in Azerbaijan.

It is clear that secondary and tertiary care in Azerbaijan faces a number of challenges. One arises from the obsolete Soviet system of financing (see *Financial resource allocation*). The delivery of specialized care has been constrained by the use of norms-based financing. In this system, funds are allocated according to certain norms for beds and staff, with complete disregard for health needs and impeding any attempt at local management. Further challenges relate to direct access to specialist secondary care by patients whose needs would be met more appropriately by primary care. This involves costs to both the patient and the health system. Furthermore, although patients actually pay directly most of the real costs of health care in these facilities, whether formally or informally, there is limited potential for competitive forces to create greater effectiveness or more flexible provision of services, thus creating the worst of both worlds. Finally, the scale of payments demanded from patients seeking to access specialist care results in gross inequality of access.

Several reforms to this sector are planned. These include proposals to integrate specialist and general hospitals, to reduce the number of hospital beds and to shift to greater use of outpatient care, in particular, an emphasis on primary health care.

Social care

For this purpose, social care is defined as the care of dependent people, such as the very elderly and younger disabled people, that does not involve health care interventions. Specialized social care was poorly developed in the Soviet Union, with the needs of those who would have benefited being met inappropriately in hospitals or else being the responsibility of families. Many hospital beds continue to be occupied by those who do not require medical care but for whom there is no alternative provision.

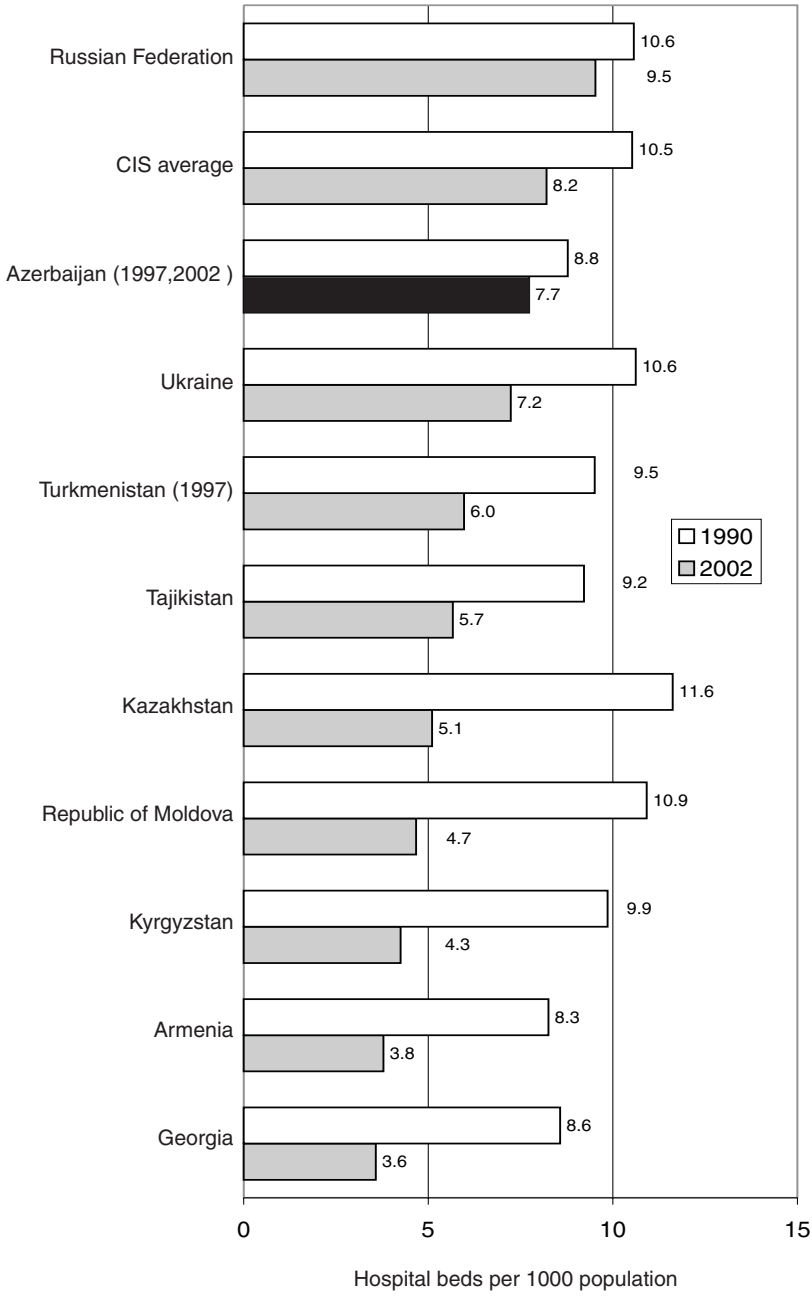
The current system of social care is highly fragmented, falling under the Ministries of Education, Interior, Health, Labour & Social Protection. Social care is provided in both residential facilities and the community, supported by a wide range of financial benefits and pensions. The state social insurance system pays old-age pensions but institutional care for those in need is very limited. In 1999, Azerbaijan participated in the “International Year of Elderly

Table 11. Inpatient utilization and performance in acute hospitals in the WHO European Region, 2002 or latest available ye ar

Country	Hospital beds per 1000 population	Admissions per 100 population	Average length of stay in days	Occupancy rate (%)
Western Europe				
Andorra	2.8	10.1	6.7[c]	70.0[c]
Austria	6.1	28.6	6.0	76.4
Belgium	5.8[a]	16.9[c]	8.0[c]	79.9[d]
Cyprus	4.1[b]	8.1[a]	5.5[a]	80.1[a]
Denmark	3.4[a]	17.8[a]	3.8[a]	83.5[b]
EU average	4.1[a]	18.1[c]	7.1[c]	77.9[d]
Finland	2.3	19.9	4.4	74.0[g]
France	4.0[a]	20.4[c]	5.5[c]	77.4[c]
Germany	6.3[a]	20.5[a]	9.3[a]	80.1[a]
Greece	3.9[b]	15.2[d]	–	–
Iceland	3.7[f]	15.3[d]	5.7[d]	–
Ireland	3.0	14.1	6.5	84.4
Israel	2.2	17.6	4.1	94.0
Italy	3.9[a]	15.6[a]	6.9[a]	76.0[a]
Luxembourg	5.6	18.4[h]	7.7[d]	74.3[h]
Malta	3.5	11.0	4.3	83.0
Netherlands	3.1[a]	8.8[a]	7.4[a]	58.4[a]
Norway	3.1[a]	16.0[a]	5.8[a]	87.2[a]
Portugal	3.3[d]	11.9[d]	7.3[d]	75.5[d]
Spain	3.0[e]	11.5[d]	7.5[d]	76.1[d]
Sweden	2.3	15.1	6.4	77.5[f]
Switzerland	4.0[a]	16.3[d]	9.2[a]	84.6[a]
Turkey	2.1	7.7	5.4	53.7
United Kingdom	2.4[d]	21.4[f]	5.0[f]	80.8[d]
CSEC				
Albania	2.8	–	–	–
Bosnia and Herzegovina	3.3[d]	7.2[d]	9.8[d]	62.6[c]
Bulgaria	–	14.8[f]	10.7[f]	64.1[f]
Croatia	3.7	13.8	8.7	89.6
CSEC average	5.2	17.6	8.1	72.5
Czech Republic	6.3	19.7	8.5	72.1
Estonia	4.5	17.2	6.9	64.6
Hungary	5.9	22.9	6.9	77.8
Latvia	5.5	18.0	–	–
Lithuania	6.0	21.7	8.2	73.8
Slovakia	6.7	18.0	8.8	66.2
Slovenia	4.1	15.7	6.6	69.0
The former Yugoslav Republic of Macedonia	3.4[a]	8.2[a]	8.0[a]	53.7[a]
CIS				
Armenia	3.8	5.9	8.9	31.6[a]
Azerbaijan	7.7	4.7	15.3	25.6
Belarus	–	–	–	88.7[h]
CIS average	8.2	19.7	12.7	85.4
Georgia	3.6	4.4	7.4	82.0[a]
Kazakhstan	5.1	15.5	10.9	98.5
Kyrgyzstan	4.3	12.2	10.3	86.8
Republic of Moldova	4.7	13.1	9.7	75.1
Russian Federation	9.5	22.2	13.5	86.1
Tajikistan	5.7	9.1	12.0	55.1
Turkmenistan	6.0[e]	12.4[e]	11.1[e]	72.1[e]
Ukraine	7.2	19.2	12.3	89.2[d]
Uzbekistan	–	–	–	84.5

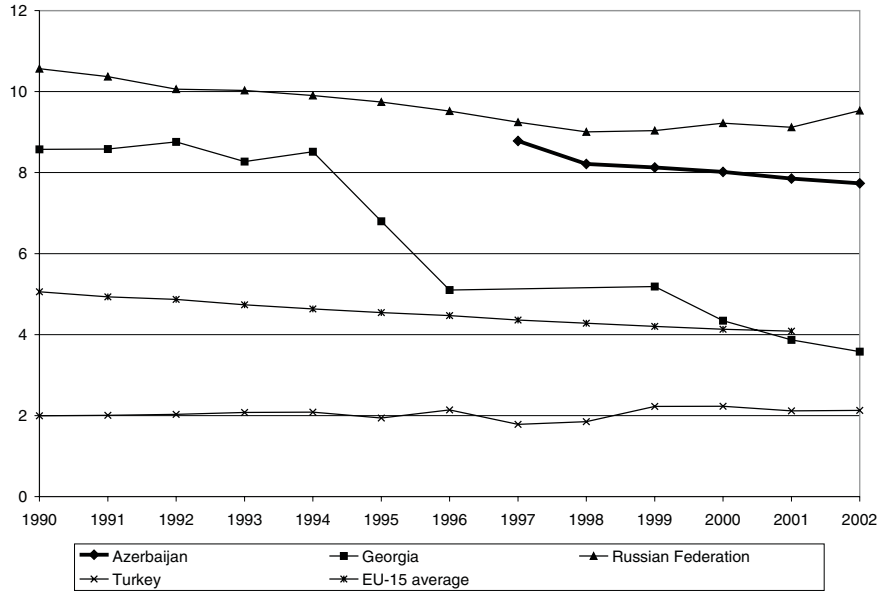
Source: WHO Regional Office for Europe health for all database, January 2004.
Notes: [a] 2001, [b] 2000, [c] 1999, [d] 1998, [e] 1997, [f] 1996, [g] 1995, [h] 1994.
CIS: Commonwealth of Independent States; CSEC: Central and south eastern countries.

Fig. 11. Hospital beds in acute hospitals per 1000 population in the Commonwealth of Independent States, 1990 and 2002 or latest available year (in parentheses)



Source: WHO Regional Office for Europe health for all database, January 2004.
Note: CIS: Commonwealth of Independent States.

Fig. 12. Hospital beds in acute hospitals per 1000 population in Azerbaijan and selected countries, 1990–2002



Source: WHO Regional Office for Europe health for all database, June 2004.

People", which led to parliament enacting a new law on social security designed to improve the welfare of the elderly *(40)*.

Care for vulnerable children is the responsibility of three ministries: Health, Education, Labour & Social Protection. There are six different forms of institutions: sanatoria, "baby-houses", "internats" (residential schools for orphans and abandoned children), boarding schools for children with special needs, orphanages and kindergartens. These institutions still hold relatively large numbers of children. The main reason for the widespread use of such facilities during Soviet times was the lack of access to safe abortions and state encouragement to have large families. Today, many children remain in these facilities because of parental poverty or ill-health with little access to alternative means of support. These facilities face severe resource shortages and are unable to pay for salaries, maintenance of buildings, or even clothing or toys for the children. The situation is exacerbated by a lack of training in modern care and educational techniques *(41)*.

Care for adults with mental illness is provided in specialized institutions. In June 2001 the President approved the new Law on Psychiatric Care. This law states that psychiatric care should be voluntary, except where a court orders

treatment or the patient is deemed dangerous to him/herself or society. Under this law, patients are entitled to respect for both their dignity and the confidentiality of their medical records, be informed about their illness, have free choice of doctor and treatment institute, and not be the subject of experiments *(42)*. Implementing these provisions will be a substantial task.

Human resources and training

According to official statistics, the Ministry of Health employs over 29 000 physicians and some 59 100 nurses (2002) *(6,35)*. The Ministry of Health is the employer of health care workers in both its own hospitals and in district facilities *(16)*. In 1997 the health sector, along with social security and 'physical culture and sports', accounted for about 6% of all those in formal employment in Azerbaijan. The present ratio of health care staff to population is about average for the Commonwealth of Independent States (CIS) of the former Soviet Union. While the ratio of physicians to population remains relatively steady, even increasing slightly, numbers of nurses and support staff are declining gradually. As already noted, staffing levels are based on norms that envisage high staffing ratios with many specialists whose skills are narrow and limited.

Physicians

At the beginning of the 1990s Azerbaijan had a rather high ratio of medical staff. At 3.9 physicians per 1000 population this was higher than the European regional average of 3.4/1000 and the EU-15 level of 3.0/1000 *(6)*. However, a decade later the ratio was similar to the regional average, 3.6/1000 in 2002. Although the Soviet system was designed to provide health care facilities

Table 12. Health care personnel per 1000 population, 1990–2001

	1990	1995	1996	1997	1998	1999	2000	2001
Active physicians	3.92	3.92	3.90	3.83	3.60	3.57	3.61	3.59
Active dentists	0.31	0.34	0.33	0.32	0.27	0.28	0.28	0.26
Certified nurses	9.69	9.00	8.78	8.39	7.67	7.59	7.46	7.38
Active pharmacists	0.64	0.60	0.62	0.61	0.33	0.31	0.30	0.26

Source: WHO Regional Office for Europe health for all database.

accessible to all, it has been difficult to ensure that posts in some rural areas are filled. Physicians are concentrated in the urban populations of the Apsheron peninsula and the coast of the Caspian Sea.

One of the greatest challenges for the Ministry of Health is to keep this huge body of staff up-to-date with new developments. Under the Soviet model, health professionals were supposed to undertake regular professional training following qualification (attestation). However, in-service training has been minimal post-independence, a trend that began before 1991. Some staff have not received any refresher training for up to fifteen years. The costs of retraining such large numbers are high and lack of access to equipment means that existing skills will soon deteriorate. However, there is a revival of in-service training. International donors and agencies, including UNICEF and IMC, have been working alongside the Ministry of Health to introduce new techniques in areas such as reproductive health, management of common conditions, revolving drug funds, computerization and financial management. These projects have identified considerable unmet demand for training among all categories of health personnel.

In addition, although nearly all medical staff formally are employed by the Ministry of Health, in practice they are private independent practitioners providing services in a public environment. Their independence, together with a lack of treatment protocols to guide practice, reduces the scope for actions to enhance quality of care. There is little incentive for physicians to control fee-for-service treatments.

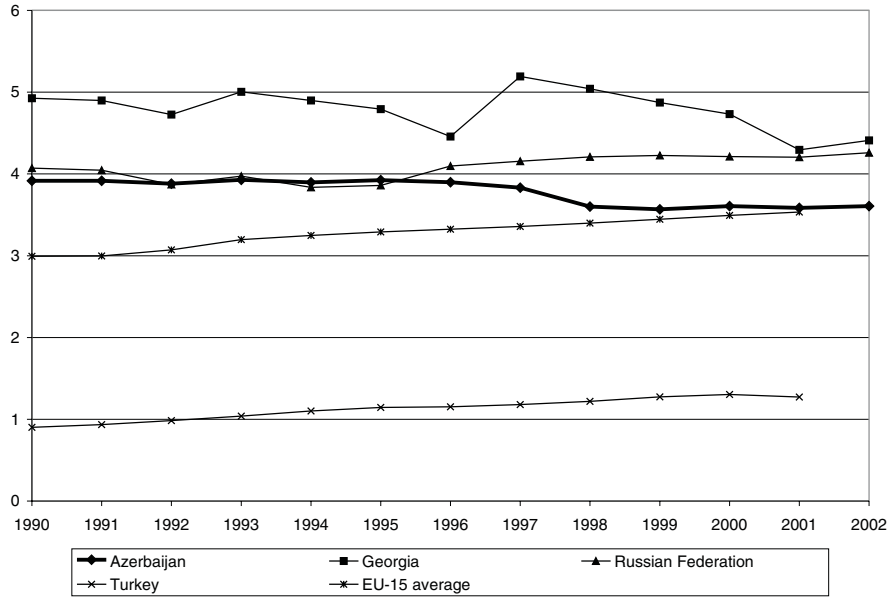
Nurses

In the early 1990s the Ministry of Health increased employment of nurses and ancillary health care workers, reaching a high of 65 400 in 1993 but falling gradually since. In 2002 the total number of nurses in the country was 59 100 (1 nurse per 139 population). There are eight nursing schools in Azerbaijan: two in Baku and one in each of the following districts – Sumgait, Ganja, Saki, Nakhchivan, Lenkaran, Mingechevir. There is also a school for postgraduate nursing education in Baku.

Pharmaceuticals and health care technology assessment

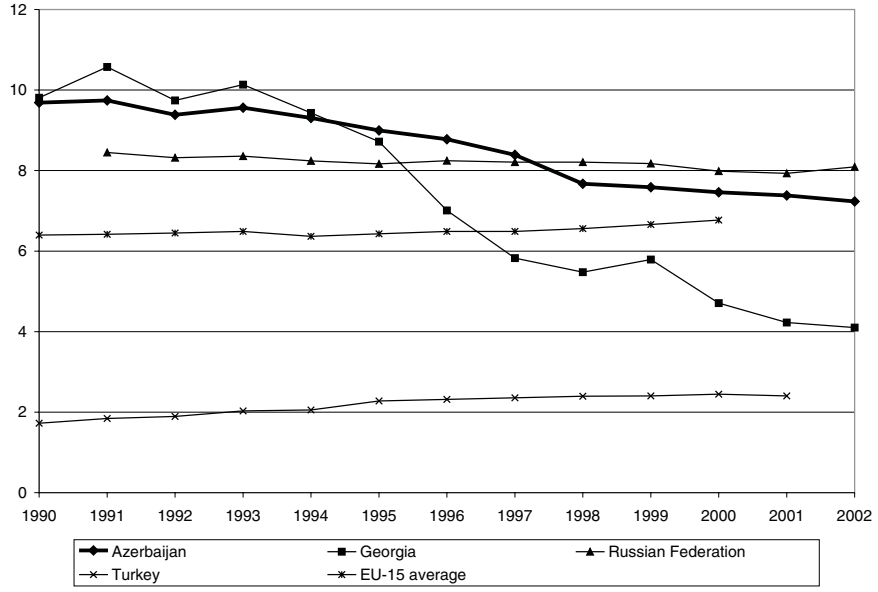
After independence the pharmaceutical sector was largely privatized although the Ministry of Health retains responsibility for regulation of the sector. At present, most pharmacies are private businesses although a few remain in government ownership; pharmaceutical production is also in private ownership.

Fig. 13. Number of doctors per 1000 population in Azerbaijan and selected countries, 1990–2002



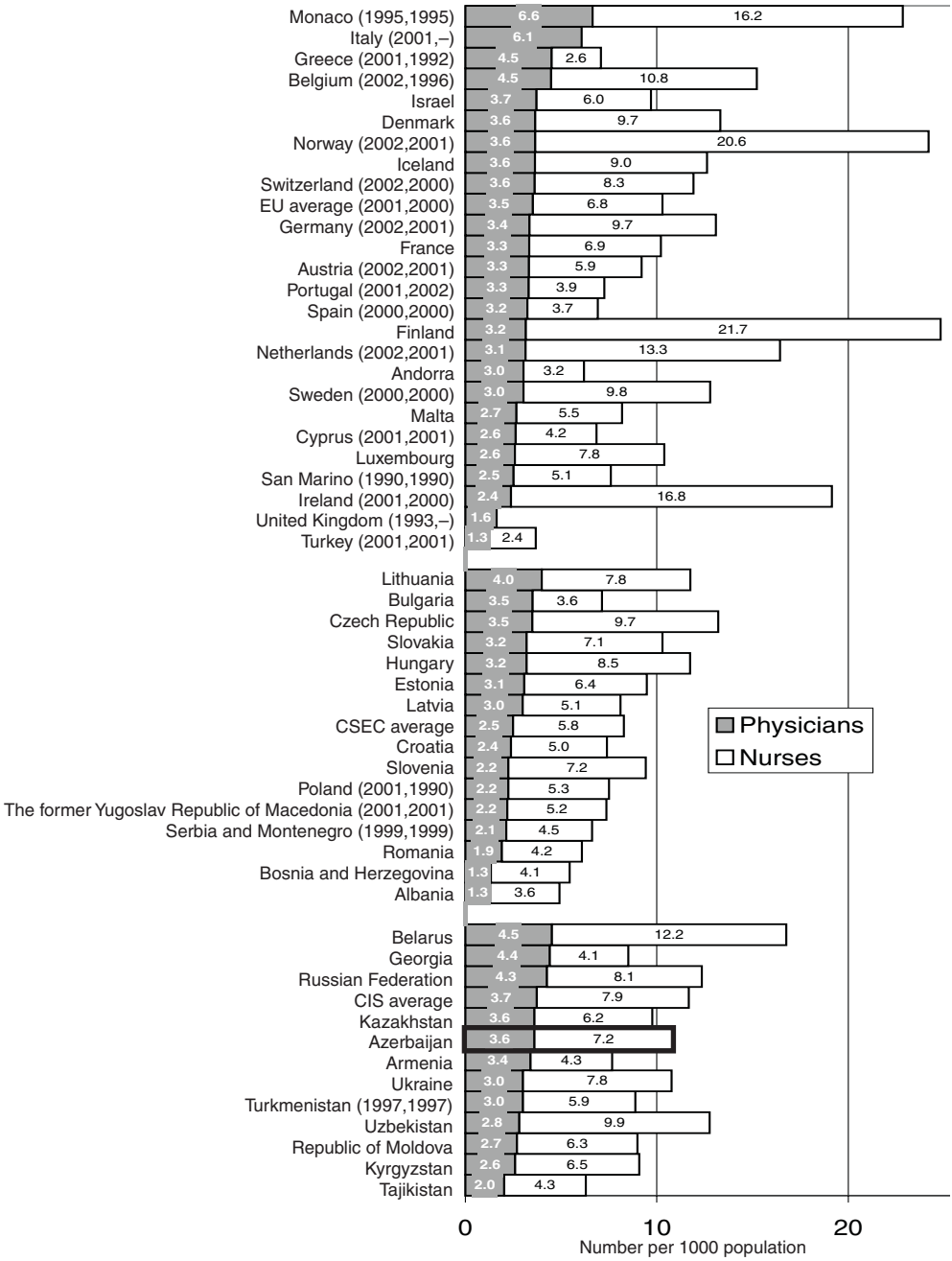
Source: WHO Regional Office for Europe health for all database, June 2004.

Fig. 14. Number of nurses per 1000 population in Azerbaijan and selected countries, 1990–2002



Source: WHO Regional Office for Europe health for all database, June 2004.

Fig. 15. Number of physicians and nurses per 1000 population in the WHO European Region, 2002 or latest available year (in parentheses)



Source: WHO Regional Office for Europe health for all database, January 2004.

Note: CIS: Commonwealth of independent states; CSEC: Central and south-eastern European countries; EU: European Union.

There is a large but unregulated informal market in pharmaceutical products in Azerbaijan. In addition to state and private pharmacies, a major retail outlet is via unregulated market traders. Their sales are estimated to account for as much as 50% of all pharmaceuticals. Although a variety of laws govern the import of pharmaceuticals, it is estimated that up to 70% of all imports neither pass through customs nor undergo inspection. The extent of non-enforcement of pharmaceutical regulations reflects the Ministry of Health's lack of capacity. Thus, though many drugs are easily available for purchase through numerous private outlets, the quality is often dubious.

Under the Soviet health system nearly all drugs were provided for free, today this applies to only a limited range of products. However, even this limited range of pharmaceuticals cannot always be provided because of the limited state budget. About 10% of the state health budget is allocated for the purchase of drugs *(8)*, a figure that has remained constant since 1988. This meets approximately 5% to 10% of demand and many people are forced to purchase essential drugs through the largely unregulated private health care sector. While it is recognized that cost savings could be obtained by greater bulk purchasing of generic drugs on the basic list, at present such purchases cover only about 6% to 8% of the market.

Rational drug use

Rational drug use contributes to improving access to care for those in need while improving the quality of care and slowing down the increase in microbiological resistance. There is considerable evidence from Azerbaijan of inappropriate treatment and while there is an essential drug list, it does not conform to international standards. Equally important, there are few disease treatment protocols and those available usually are not enforced. A particular problem is pressure from both patients and physicians to use antibiotics where they are not required and injections where an oral substitute is available.

While numerous discussions have highlighted these critical problems there has been little progress. In some districts retraining of physicians has met with some success, particularly for those working in hospitals. In remote areas, with little access to drugs, physicians often simply write extensive prescriptions to be completed by patients in private pharmacies. Combating these practices requires a multi-faceted approach including the formulation of standard drug lists, revision of treatment standards and education of physicians and patients. Success will greatly benefit those who cannot afford the extra costs, as well as improving the quality of health care by reducing the number of unnecessary drugs. This effort will require a systematic coordinated process, starting with the development of treatment protocols for selected common diseases, linked to

modifications of the essential drug list. For this purpose the Project Coordination Unit (PCU) of the Health Reform Project, ongoing in Azerbaijan, has invited a consultant to provide technical assistance to the Ministry of Health and its pharmaceutical expert committee with a view to produce a National Essential Drug List, a set of Standard Treatment Protocols and a National Drug Formulary, and to provide technical assistance in this process with a view to preparing the ministerial environment for the eventual drafting of a national drug policy in the long-term.

Community revolving drug funds

To address the difficulties many people face in obtaining access to affordable, high quality drugs, UNICEF and some non-governmental organizations piloted community revolving drug funds (RDFs). The pilot projects took place in selected districts of Azerbaijan, in populations of refugees and internally displaced persons. Much has been learned from this experience and at the time it seemed likely that the concept would be expanded further under the new Health Reform Project. It was shown that these funds are feasible and relatively sustainable. Involving the community in establishing lists of households that would be exempted from paying is likely to have been a key factor in the high recovery rate of the funds (currently less than 10% exemption). Cross-subsidies or additional contributions to the funds by the communities themselves provided cover for those who were exempt.

While the pilot studies have shown that the model is feasible, their establishment required considerable investment in training, starting capital and supervision, as well as creating a centralized system of purchasing and distribution to maximize cost savings. However, despite this positive experience, the further expansion of revolving drug funds within the framework of the Health Reform (HR) Project was decided against at its mid-term review (September 2003). This was mainly because of the observation of a significant reduction in market prices of drugs compared to the possible pricing of drugs to be dispensed through RDFs, taking account of procurement and overhead costs. The Ministry of Health subsequently developed a strategy for distribution of the drugs procured for the RDFs' purpose.

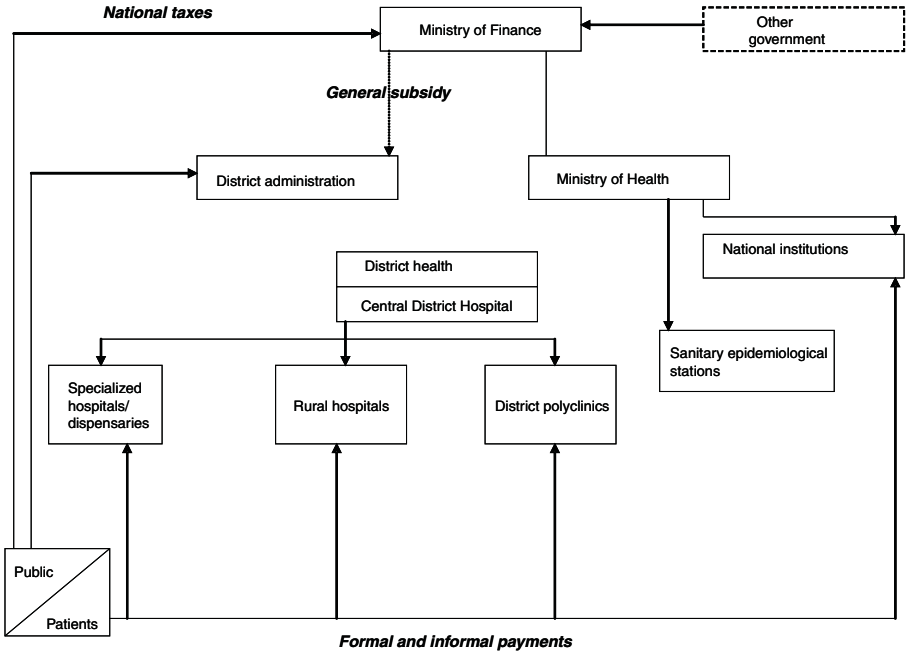
Financial resource allocation

Third-party budget setting and resource allocation

Health care budgets are proposed by districts and reviewed and, in some cases, amended by both the Ministry of Health and local government. Until recently, financing was based on the old Soviet norms of the number of beds in hospitals and attendances at outpatient facilities. Under this system, most resources frequently were allocated to large hospitals rather than where the need was greatest. Azerbaijan has now discarded the rigid old system but has retained a system of historical budgets based on estimates of the cost of running each health facility. However, real staff costs often are underestimated.

Facilities' budget proposals are aggregated by the Ministry of Health and presented to the parliament for approval. This usually results in significant cut-backs. In 2001, the Ministry requested AZM 70 billion but only about AZM 50 billion were approved, equivalent to an almost 30% cut. Cuts have always been to non-salary line items only so that, when the budget is approved, allocations for other items may be severely reduced or eliminated. What is actually spent is still less than is allocated. Strict rules from the Ministry of Finance make it very difficult to transfer funds between line items. Budgets made in advance are approximate estimates of requirements for each budget line so it would be expected that there would be a need to transfer funds between budget lines throughout the financial year as situations change. In 1998, the Ministry of Health managed to spend only 66% of its approved budget but improved this to 83% in 1999 *(8).* Unspent funds are returned to the Ministry of Finance despite the persistence of critical funding shortages in the health care system.

Fig. 16. Financing flow chart



As noted previously, official funding of the health care system comes from two main sources: the central and the local budget, administered by the Ministry of Health and district administrations, respectively. The Ministry of Health budget includes funding allocated to the republican (central level) hospitals and polyclinics, San-Epid Stations, the Research Institute for Health and the administration of the Ministry of Health. The local budget covers specialized hospitals and dispensaries at district level, rural hospitals and district polyclinics and primary care. The allocation of funds is based on historical norms and largely determined by whether or not the district has a hospital without taking account of its actual performance.

The Ministry of Health has little influence on how local authorities allocate their health funds and, until recently, did not have information on the actual utilization of regional funds. This changed in 2001 when district health administrations began reporting on budget and expenditure to the Ministry of Health, thus for the first time giving a reasonable picture of what is happening at the local level. Preliminary estimates suggest that it would cost US $15–20 per capita just to provide an adequate package of primary care services. However, allocation of funds between districts is increasingly inequitable. In

1999 13 districts received only US $2–3 per capita to cover all health services. More recently it was shown that a number of regions receive even less, for example Masalli and Ismayilli regions operated on less than US $1.2 per capita in 2001 *(24)*.

User charges comprise a third source of funding for health care facilities. They are currently estimated to represent about 10% of the total health budget but this is likely to vary considerably between facilities. It should be noted that 18% of the funds generated are remitted to the Ministry of Finance as Value Added Tax, which is then lost to the health budget. The fourth major financial source is, as noted earlier, income from patients' informal payments to health personnel and their direct purchase of drugs, largely because of the lack of pharmaceuticals provided by the government.

Payment of hospitals

Hospitals obtain most of their funding for central facilities from budgetary allocations from the Ministry of Finance, paid through the Ministry of Health. District administrations provide funds according to line item budgets and subject to the regular reductions in allocations noted above. These are intended to cover the major components i.e. staff salaries, pharmaceuticals, equipment, maintenance and infrastructure. In addition, hospitals also receive direct payments from patients through formal charges for health services. The proceeds from these formal charges are divided between the hospital and the Ministry of Finance. Income from fees may be used to supplement salaries and, on the rare occasion when there is a surplus, to pay for improvements to the facility. A small number of the most prestigious hospitals in Baku receive payments from private insurance.

Payment of physicians and health care workers

Almost all health care staff in Azerbaijan are, at least formally, state employees. However many face severe economic difficulties as the official salary is insufficient to meet basic needs. In fact, the average state salary for healthcare workers is the lowest of any economic sector in Azerbaijan. In 2003, the average monthly salary in Azerbaijan was about AZM 383 100 (US $78). At the same time, the average salary in the health care sector was just 28% of the national average (AZM 108 900 or US $22) *(33)*. This contrasts with the government's

Minimum Consumer Budget of US $76 per month. Although the World Bank considered this figure too high for a poverty line, and in 2002 estimated that it should have been about US $24, it does illustrate the very low levels of health care salaries *(43).* There are also marked gender disparities, with male staff earning almost double that of females. This is partially explained by the large numbers of female nurses whose salaries are extremely low, predominantly male medical specialists receive higher incomes.

Consequently there is a strong incentive to charge patients, both formally and informally. In these circumstances informal payments are seen as a mechanism for financing basic health care because of limited state resources, rather than a form of corruption. It is clearly understood by all, albeit unofficially, that the official salaries constitute only a small proportion of total remuneration. Salaries are essentially a form of retainer to link staff formally to the organization and to serve as a quasi-licence to levy informal charges on patients. Thus, those appointed to senior positions may have to make a payment representing several years' pay. Once appointed to their position, medical staff can collect fees for service (both formal and informal). Formal fees support both salaries in local facilities and the operational costs of the wider health system since a proportion of the fees collected are distributed within the health system. While in cities competition may control levels of charges, there is no such pressure in rural areas where there are few providers. This arrangement is workable but it creates a number of serious problems: perhaps the most important is that it excludes some of the poorest people from accessing the health system.

However, not all health care staff benefit from access to informal charges (for example, support staff and those in direct contact with patients are at an advantage). Ironically, the poor in Azerbaijan for whom access to health care is constrained include a disproportionate number of health care staff. This irony was foreseen by health reformers who excluded health professionals from formal user charges when enacting the law on Protection of Health of the Population (1997). This law provides for health care staff to receive in-house health insurance coverage and access to services as part of their terms of employment. With the implementation of the State Programme on Poverty Reduction and Economic Development (SPPRED) 2003–2005 mentioned earlier, the government took the first steps to alleviate these problems by increasing the monthly salaries of state-funded employees in the health sector by 50% as of 1 June 2003, with additional funds of AZM 30.1 billion allocated for this purpose *(29).*

Table 13. Average salaries (as of October 2001)

Average Monthly Salaries	Manat	US $[a]	% of average wage
National average Azerbaijan (Oct 2000)	205 225	42.76	
Ministry of Health	75 808	15.79	36.9%
Ministry of Health – males	125 253	26.09	61.0%
Ministry of Health – females	66 550	13.86	32.4%
Surgeons	83 510	17.40	40.7%
Paediatricians	81 360	16.95	39.6%
Therapists	75 715	15.77	36.9%
Dentists	73 174	15.24	35.7%
Gynaecologists	74 489	15.52	36.3%
Midwives	74 489	15.52	36.3%
Graduate Nurses	52 041	10.84	25.4%
Junior Nurses	42 132	8.78	20.5%
Feldshers	118 242	24.63	57.6%
Laboratory Technicians	47 749	9.95	23.3%
X-Ray Technicians	57 813	12.04	28.2%

Source: State Statistical Committee of the Republic of Azerbaijan.
Note: [a] at exchange rate of AZM 4800 to the US $.

Health care reforms

The present health care system in Azerbaijan is little different from that created by the Soviet Union. The large network of poorly equipped hospitals has proved to be unsustainable. Services are fragmented, with weak links between inpatient and ambulatory services. The Soviet model of primary care, based on physicians with very limited and specialist training and little equipment or support staff, is both ineffective and inefficient. Access to high quality healthcare is increasingly inequitable, with the poor, refugees and the internally displaced facing particular difficulties. It is clear to most commentators that increased funds coupled with new means of health care delivery are needed.

The Ministry of Health has begun this process of reform and is now actively engaged in reorganizing the provision of health care. A new law, 'About Protection of Health of the Population' was passed in 1997 (followed in 1998 by a Health Reform Commission, established by Presidential Decree).

In 1999, the Ministry of Health sought to operationalize these legislative measures. It published a blueprint for health reform (44) that includes an ambitious and extensive list of objectives for the health sector:

- reform the system of management
- develop new economic mechanisms
- organize and develop medical insurance
- reform primary care
- accreditation, certification and licensing
- privatize health care
- develop medical science
- reforms related to staff, education and re-training
- reform the pharmaceutical sector

- rationalize the network and number of beds
- improve sanitary/epidemiological services
- reform informatics and statistics.

Essentially a wish list, the document sets out where the Ministry of Health would like to go but fails to prioritize this long list of major changes. Changes that it had been unable to implement in the preceding eight years. However it has informed the development of the government's Poverty Reduction Strategy Paper (PRSP), which fed into the State Programme on Poverty Reduction and Economic Development (SPPRED) and which may offer a means of beginning to implement some of the initial elements of the blueprint.

The PRSP Health Sector Working Group identified three levels at which action was needed in order to progress:

(i) Better targeting of limited state resources.

(ii) Reform health care delivery; particularly enhancing its ability to meet the needs of the poor.

(iii) Improve the quality of health services; again with an emphasis on the needs of the poor *(30)*.

It went on to identify a series of objectives for health care reform:

- to reduce geographical inequalities in the affordability of health care
- to optimize immunization coverage
- to enhance the effectiveness of funds obtained from user charges
- to define a package of medical services that can be provided free of charge to the whole population
- to create sustainable improvements in population health and financing of health care
- to improve the effectiveness of the health system, reducing unnecessary expenditure
- to create a transparent competitive environment for the private sector to participate in health care
- to improve the epidemiological situation
- to democratize health care management
- to enhance training of medical specialists
- to develop a national system for monitoring public health and relevant risk factors
- to improve the provision of drugs and medical equipment.

Although rather more specific, this remains an extremely ambitious programme with no clear and costed strategy on how it might be achieved.

Content of reforms

Azerbaijan began to enact new legislation in the health sector in 1993. Article 41 of the constitution, which came into force in 1995, clarified the legal framework within which the health system operated. Over the past decade a large number of legislative acts have been adopted by the Milli Mejlis (parliament), many on quite specific issues. However, as preceding descriptions have shown, there are no clear mechanisms for their implementation not least because of the fragmentation of the system, the absence of coordinated systems of accountability, and perhaps most importantly, the inability to allocate the necessary financial resources. Furthermore, as in other CIS countries there is a reliance on presidential decrees, which often are made with little involvement of key stakeholders and therefore little thought about how they might be implemented. Even a superficial comparison of the titles of the law with the features of the health care system in Azerbaijan as described earlier there is little evidence that many have been especially effective, except possibly for procedural changes within some Ministry of Health facilities. The somewhat lengthy list of legislation includes:

- About Protection of Health of the Population (26/06/97).
- About Sanitary-Epidemiological Safety (10/11/92).
- About Donation of Blood and its Components (07/02/97).
- About Prevention of Spread of the Disease Caused by HIV (AIDS) (16/04/96).
- About Pharmaceutical Activity.
- About building of health system funding on new principles, per capita financing from local budget, establishment of legal foundation for the implementation of financing based on national programmes.
- About Medical Insurance.
- About Private Medical Practice.
- About Transplantation of Human Organs and/or Cellular Tissues.
- About Immune Prophylaxis of Infectious Diseases.
- About Struggle against TB.
- About accreditation of health institutions with the view to regulate their activities in the period of transition to market economy and certification of medical professionals.
- About private medical activities.
- About development of legal-normative basis with the aim of development of entrepreneurship, protection of health of the population in private stationary facilities and social protection of medical professional.

- About development of legislative acts with the purpose to regulate medical services provided to the population in the newly established municipal system, providing possibilities to the municipal bodies to participate in solving social problems of population.
- About strengthening public care during the transition period, giving mother and child protection as a priority field of health care.
- About development of a legal foundation that is necessary for regulation of types, volume and valuation system of paid services and payment of progressive wages to medical staff in specialized medical departments and facilities during the transition period.

There has been some notably effective legislation. A series of presidential decrees (24 February 1994, 12 September 1996) and primary legislation enacted by the Milli Mejlis (6 March 1996, 26 June 1997) introduced payment for some specialized medical services. A presidential decree dated 27 January 1997 permitted the development of a private health sector in pharmaceuticals and medical and non-traditional medical activities. Finally, Presidential Decree No. 760 dated 13 March 1998, established a State Commission to advise on reform to the health care system.

Reform implementation

As has been shown, systematic reform of Azerbaijan's inherited obsolete Soviet system of health care has yet to take place. Despite a considerable volume of new legislation, the basic structural problems facing the system and the lack of financial resources (notwithstanding Azerbaijan's growing oil revenues) mean that these laws have had little effect. However, a series of local pilot projects offer some scope to be expanded nationally.

The UNICEF supported PHC revitalization project in Quba district implemented a new model of primary care. In 1997 this project was extended to cover four other districts (Masalli, Lankaran, Calilabad and Neftcala). The Quba project aimed to identify ways to reform primary health care services at district level. It had three components: stimulating a national dialogue on policy changes needed for health reform; implementing primary care reforms such as rationalizing health care services, staff training and strengthening management; and monitoring and evaluating progress. The model was based on a conventional system of family medicine, although obstructed by the lack of relevant training nationally. UNICEF also worked with USAID, Unocal and Mercy Corps to support a package of other reform strategies. Plans for expansion of primary

care work were drawn up in 2003 with the intention of beginning projects in 2005. These will focus on improving the capacity to provide accessible and good quality primary care services. As the new reforms are implemented and tested, the pace of their replication can be increased, although it is recognized that funding is a major barrier. At least US $5 million will be required for the next stage of this expansion. These are promising efforts but considerable work will be required to expand these reformed services to other parts of the country.

In public health, although the basic sanitary-epidemiology system structure remains in place, some changes have been introduced in certain areas of practice. For example, the Ministry of Health has introduced DOTS (Directly Observed Treatment, Short-course) – a WHO strategy to combat tuberculosis. The strategy officially came into force in January 2003 but remains a pilot activity since DOTS coverage is 4% only. Furthermore, the case detection rate is around 20% compared with the WHO standard of 70%.

Recognizing the enormous threat posed by tobacco consumption the Ministry of Health has also introduced an educational campaign to reduce smoking. However, the concept that health promotion should be a task for district health authorities has not yet been accepted. In 1996, with the support of UNFPA, the Ministry began promoting and providing modern methods of contraception in six districts. However, the long-term future of these efforts is threatened by USAID's possible withdrawal of funds.

The Ministry of Health has finally begun to address the problem of the large numbers of obsolete and underused health facilities. Working with the pilot projects outlined above, since 1995 the Ministry has been experimenting with rationalization through closure or merging of facilities. It is anticipated that this process will be extended over the coming years. Some health facilities, such as dental polyclinics, have been taken out of the state health budget through privatization. However, these are mostly small facilities that represent a very small proportion of health expenditures.

The introduction of user charges was intended to increase the health budget by about 10% but it was accompanied by a reduction in the state budget. It is evident that the combined amount from donors and the state budget is insufficient to support significant improvements in health care. Recognizing that it is unrealistic to expect a substantial increase in available funds from one year to the next, in 2001 the Poverty Reduction Strategy Paper (PRSP) process set out a series of measures that would gradually increase funding, with the ultimate goal of arriving at a level of funding that would enable an adequate level of health care delivery. Meanwhile, the Ministry of Health has committed itself to continue its efforts to become a more efficient and cost-effective provider of services. The World Bank, through the International Development Association

(IDA), is funding a Learning and Innovation Loan to the Republic of Azerbaijan. This is being undertaken in conjunction with the government and Ministry of Health's reform of the health system.

The Health Reform Project was started in 2001. Its overall development objective is to explore ways to strengthen and reform district health care services. The expected outputs include:

- increased knowledge and capacity within the Ministry of Health to design and implement appropriate primary health care reforms;
- provision of improved primary health care services in the targeted districts by physicians and other health workers;
- improved access to primary health care services and facilities in five targeted districts.

The total cost of the Health Reform Project in Azerbaijan is estimated at US $5.5 million, with the World Bank financing SDR 4 million (Special Drawing Rights) or approximately US $5 million – 90% of the total project costs. The Government of Azerbaijan is contributing the remaining 10% (US $0.5 million).

This project, coordinated at the Ministry of Health through a Project Coordination Unit (PCU), is expected to be completed by the end of 2004. As part of the project, there is a contract between the MOH and UNICEF for the implementation of district health care reform (excluding the civil works portion). The project is divided into two components.

1. Capacity Building for Health Policy Reform: including analysis and planning development, health financing reform, pharmaceutical policy development and management information system development.
2. District Level Primary Care Reform: this component is designed to provide direct material support and substantive training to the five pilot regions (Salyan, Khachmaz, Sharur, Goycay and Shamkir). In order to evaluate the project five additional districts have been selected, matched by region. These control districts will serve as comparisons where data collection occurs on key project indicators but no other investments are supported by the project. Specifically, this component will involve:
    - rationalization of health care services, with substantial community involvement;
    - implementation of primary health care models with the support of field monitors and clinical facilitators;
    - improvement of quality and access to primary care services through civil works in approximately eight primary health care facilities in each district;

- strengthening of the management capacity of district health personnel to be implemented by UNICEF;
- clinical in-service training using existing and modified UNICEF training modules as well as new modules in multiple clinical subject areas.

Since the Health Reform Project was implemented 45 community health councils have been set up, a rationalization plan for the pilot regions prepared and a series of training programmes for developing the skills of health care staff in the regions held *(29).*

In 2001 there was also a reform of financial data reporting in the health care system. Previously, the Ministry of Health was unable to perform national level health care planning, having virtually no knowledge of the financial resource flows allocated directly by the Ministry of Finance to the district level. In 2001, the districts began reporting to the Ministry of Health. The system is still at an early stage but it represents the beginning of effective financial management. Further improvement of this system was initiated in June 2002, within the Institutional Building Technical Assistance (IBTA-II) programme by the World Bank that granted US $400 000 to the Ministry of Health over a period of three years.

The development of national health insurance system financing has been under consideration for some time but has not yet been implemented. During 2000 and 2001, US $2.2 million was budgeted for this purpose but as there was no mechanism to use these funds they were returned to the Treasury unspent. The current Health Reform Project provides some funds for a feasibility study to develop an insurance programme that must include a safety-net for the poor (health financing sub-component of the project). It is anticipated that coverage of services by such a scheme will be gradual and incremental.

There is an expectation that the PRSP review, concluded in 2002, will lead to further reform. These reforms include: accelerating rationalization plans to address the over-supply of hospital beds, accompanied by refurbishment of some remaining facilities including laboratory facilities; the introduction of systematic management training at district level; improving health data flow (through a pilot system in five districts with the possibility for expansion nationally) and better management of financial data. District-specific rationalization plans have been completed for each intervention district. These emphasized the need to reduce the number of inpatient beds, inpatient facilities and personnel; establish necessary new services; increase the number of primary health care outpatient clinics; and reorientate services and personnel from specialized care toward basic primary care, general practice and preventive medicine. It has also been proposed that the PRSP should address the inflexibility of the current health

financing arrangements such as the inability to transfer funds between budget lines. It remains to be seen whether this proposal will be implemented. To address the increasing geographical inequity in health funding it has been proposed that district budgets should shift gradually to a more equitable level of per capita spending, with increasing transfers to those with the lowest levels of resources. Finally it has also being proposed that the 18% VAT, levied on health charges and remitted to the Ministry of Finance, should be retained within districts to create local funds to subsidize services for the poor, particularly in primary care.

Conclusions

During the past seven decades, the provision of health care to the population in the Azerbaijan Republic was based on a system of administrative norms that did not take account of local population needs or availability of funds. Human resource policies were based on capacity alone with no recognition of the actual performance of health care staff. Although the population received an extensive, albeit very basic, health service there was no means of ensuring the quality of the care provided.

The collapse of the Soviet Union brought about major changes in Azerbaijan. It faced political, economic and health challenges. Politically, it was moving from the Soviet model of command and control to one based on a degree of pluralism, confronting the challenge of developing democratic institutions in a context with no democratic tradition. This has not been easy. Economically, the disruption of Soviet era trading links was damaging for a country that had suffered decades of underinvestment in both capital and human resources. Conflict with neighbouring Armenia added to the problems, creating around one million refugees and internally displaced people. In terms of health, Azerbaijan shares with its CIS counterparts a low life expectancy, with high levels of non-communicable diseases.

Reform is crucial but progress has been slow. The health system, with its inflexible design and severe funding shortages has proved incapable of meeting even the essential health needs of the population. During 1992 and 1993, even basic public health services such as immunization were practically suspended. As a result, the country experienced outbreaks of diseases that once had been controlled including polio, diphtheria and malaria. Other diseases, such as tuberculosis, began to increase. Here the health system faced near complete collapse.

As a matter of urgency the government undertook a major evaluation of the health system in 1993. This took place when the government was beginning to address a range of other factors with implications for the health system. These included the stabilization of the political system, a ceasefire and the start of a major programme of social assistance for refugees and internally displaced persons. The reform of the health system was planned as part of the national strategic plan for redevelopment of the economic and social infrastructure of the country.

In the interim, progress has been slow but, at last, Azerbaijan has begun to implement a limited range of reform activities including innovative pilot primary care activities, privatization of pharmaceutical and some other services, recognition of patient rights and development of local management capacity. However, there is still a long way to go if Azerbaijan is to build a health system to meet its population needs. Several features of the system in place are likely to reinforce the cycle of poverty leading to poor health outcomes and vice versa and consequently posing a high burden on society. These include the continuing heavy reliance on treatment over prevention, with current incentive structures likely to encourage practitioners to delay and prolong treatment at the expense of patients' welfare; lack of incentives and capacity for quality improvement; fragmentation of lines of accountability and lack of financial transparency; lack of appropriate information systems permitting reliable assessment of the health of the population as the key to efficient management and planning of health services; and finally, gross underfunding of health care. Addressing these key issues as a matter of priority is likely to improve the overall system in the longer run; however, alongside economic growth this will require strong political commitment and willingness to invest in the health care sector. Some initial steps in this direction have occurred with the implementation of the State Programme on Poverty Reduction and Economic Development (SPPRED) although the outcomes of these recent efforts remain to be seen.

Annexes

Annex 1: Health budget 1998 and 1999

Government health budget	1998			1999		
	bn manat		%	bn manat		%
	forecast	actual	executed	forecast	actual	executed
Ministry of Health	229.9	152.7	66.4	221.6	183.4	82.8
State Railways	4.6	2.7	58.7	2.6	2.8	107.7
Total	**234.5**	**155.4**	**66.3**	**224.2**	**186.2**	**83.1**
of which:						
Current expenditures	**105.8**	**70.7**	**66.8**	**104.5**	**98.5**	**94.3**
- Salary	99.8	70.7	70.8	77	73.2	95.1
- Employers' contributions	6	0	0	27.5	25.3	92.0
o/w to Social Pension Fund	6	0	0	27.5	25.3	92.0
Expenditures for other goods and services	**114.1**	**74.5**	**65.3**	**112.4**	**81.9**	**72.9**
- Drugs	27.2	15.1	55.5	28.4	18.1	63.7
- Food products	17.6	11.3	64.2	18.3	12.8	69.9
- Utilities	27.9	19.3	69.2	30.8	24.5	79.5
- Procurement of equipment and supplies	11.2	7.2	64.3	6.4	5.2	81.3
Capital expenditure	**13.9**	**9.8**	**70.5**	**7.3**	**5.7**	**78.1**

Source: Ministry of Health.

Annex 2: Health care expenditure 1995–2002 at central and local level

Ministry of Health	Expenditures							
	1995	1996	1997	1998	1999	2000	2001	2002
Central Budget	30	43	39	38	42	47 (22%)		
Local Budget	122	166	155	123	153	168 (78%)		
Total	152	209	194	161	195	215	272	
Per Capita (Mn)	19 886	27 051	24 872	20 440	24 518	26 821	33 659	
Per Capita (US $)	4.5	6.3	6.2	5.3	6.0	5.7	5.5	5.7

Source: Ministry of Health.

Annex 3: Utilization of beds

Bed occupancy rates	1990	1995	1996	1997	1998	1999	2000
Republican hospitals	65.2	33.8	34.3	33.0	32.8	30.9	33.7
Children's republican hospitals	53.8	28.0	26.4	26.7	28.1	25.9	26.2
Urban hospitals	70.0	32.7	29.2	26.6	24.3	23.0	23.3
Children's urban hospitals	66.4	33.1	29.8	26.9	22.1	21.2	23.9
Infectious disease hospitals:							
For adults	76.7	25.3	16.6	20.0	14.7	10.5	11.0
For children	61.9	30.8	26.1	27.0	19.2	14.4	13.2
Tuberculosis hospitals:							
For adults	61.3	33.1	47.3	55.5	42.4	17.9	–
For children	65.2	45.0	51.6	52.1	42.2	42.6	55.1
Central republican hospitals	78.8	32.7	28.6	26.3	23.9	23.8	24.6
District hospitals	66.0	22.4	13.3	12.5	8.9	8.2	6.3
Local hospitals	69.	34.4	34.1	31.9	28.8	28.1	31.0
Maternity homes	68.2	51.3	34.3	29.7	26.5	25.0	24.4
Clinics of universities	71.1	48.5	47.5	40.8	37.3	31.9	32.8
Research institutes	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Psychiatric hospitals	83.4	51.3	43.6	42.8	40.8	40.7	40.9
Dispensaries:							
Tuberculosis	70.0	49.9	61.6	52.4	46.2	43.0	61.4
Oncological	68.8	45.8	47.2	39.8	34.3	31.6	36.6
Dermato-venereological	63.1	40.0	39.2	33.5	27.3	26.2	29.7
Psycho-neurologic	81.1	45.4	41.4	45.3	40.7	42.6	51.9
Narcological	72.2	54.8	49.6	54.	44.9	35.9	32.5
Cardiological	67.1	36.9	33.5	28.3%	27.0	25.9	26.8

Source: Ministry of Health.

Annex 4: Hospitals of the Ministry of Health and district authorities

Numbers	1991	1995	1996	1997	1998	1999	2000	2001	2002
Total no. of hospitals	733	733	730	730	721	714	714	710	713
Total no. of hospital beds	69 294	68 522	67 472	66 913	66 580	65 864	64 723	64 089	63 505
Central district hospitals	59	65	63	63	63	63	63		
Beds in central district hospitals	14 949	14 625	14 455	14 447	14 475	14 401	14 721		
Rural local hospitals	376	374	374	374	368	365	366		
Beds in rural local hospital	13 065	12 922	12 352	12 176	12 065	11 985	11 925		
Year-round sanatoria	29	26	25	23	23	23	23		
Beds in year-round sanatoria	3 800	3 275	3 142	2 942	2 875	2 875	1 731		
Infant orphanages	4	4	4	4	4	4	4		
Orphanage places	360	310	350	350	350	400	400		

Source: Ministry of Health.

Annex 5. Health facilities under the overall authority of the Ministry of Health

Number	1991	1995	1996	1997	1998	1999	2000
Polyclinic departments of hospitals and maternity homes	614	611	605	602	600	595	597
Independent polyclinics and ambulatories	869	895	880	875	849	836	834
Rural medical ambulatories	727	743	719	719	701	685	685
Medical posts	61	152	105	91	57	97	110
Dental polyclinics	44	48	48	47	49	48	49
Dispensaries:							
Tuberculosis	27	27	27	27	26	29	25
Oncological	9	9	9	8	8	8	8
Dermato-venereological	23	21	21	21	20	20	20
Psychoneurology	10	11	11	11	11	11	11
Endocrinological	5	5	5	5	5	5	5
Medico-physio-therapeutical	9	7	7	7	8	8	8
Narcological	8	8	9	9	9	9	9
Cardiological	3	4	4	4	4	4	4
Outpatient & polyclinic establishments inc. polyclinic departments of hospitals and dispensaries	1 678	1 646	1 626	1 616	1 589	1 573	1 573
Total number of first-aid stations, of which	67	70	69	74	69	69	70
independent	21	26	26	26	26	26	26
part of other establishments	46	44	43	48	43	43	44
San-Epid establishments, including disinfection departments	85	89	89	89	89	89	89
Medical assistant posts	693	423	353	344	284	155	148
Medical obstetric posts	2 329	2 084	2 025	1 920	1 878	1 817	1 847

Source: Ministry of Health.

Annex 6: Law of Azerbaijan Republic 'About Protection of Health of the Population'

Article 24. Each patient shall have the right:

- to select his/her doctor with the doctor's consent except when emergency medical aid is required;
- to obtain medical examinations and to be treated under conditions complying with sanitary and hygiene standards;
- to obtain specialist consultation and inpatient treatment;
- to be granted confidentiality in respect of personal information relating to use of health care, state of health, diagnosis, as well as other information obtained during medical examination or treatment;
- to give verbal or written consent to medical intervention;
- to refuse medical intervention;
- to receive information about his/ her rights and duties, state of health and at his/her own discretion to choose the person to give such information;
- to be provided with separate place in the hospital for performing religious rites unless it conflicts with the internal regulations.

If a patient's rights are violated, he/she may apply to the health facility management, appropriate executive body or to the court as specified by the legislation.

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