European Observatory on Health Care Systems

Health Care Systems in Transition

Armenia





The European Observatory on Health Care Systems is a partnership between the World Health Organization Regional Office for Europe, the Government of Greece, the Government of Norway, the Government of Spain, 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.

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RESEARCH AND KNOWLEDGE FOR HEALTH
By the year 2005, all Member States should have health research, information and communication systems that better support the acquisition, effective utilization, and dissemination of knowledge to support health for all.

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Foreword

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

The Observatory is a unique undertaking that brings together WHO Regional Office for Europe, the Governments of Greece, Norway and Spain, 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. This partnership supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of the dynamics of health care systems in Europe.

The aim of the HiT initiative is to provide relevant comparative information to support policy-makers and analysts in the development of health care systems and reforms in the countries of Europe and beyond. The HiT profiles are building blocks that can be used to:

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

The HiT profiles are produced by country experts in collaboration with the research directors and staff of the European Observatory on Health Care Systems. In order to maximize comparability between countries, a standard template and questionnaire have been used. These provide detailed guidelines

and specific questions, definitions and examples to assist in the process of developing a HiT. Quantitative data on health services are based on a number of different sources in particular the WHO Regional Office for Europe health for all database, Organisation for Economic Cooperation and Development (OECD) health data and the World Bank.

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. Most of the information in the HiTs is based on material submitted by individual experts in the respective countries, which is externally reviewed by experts in the field. Nonetheless, some statements and judgements may be coloured by personal interpretation. In addition, the absence of a single agreed terminology to cover the wide diversity of systems in the European Region means that variations in understanding and interpretation may occur. A set of common definitions has been developed in an attempt to overcome this, but some discrepancies may persist. These problems are inherent in any attempt to study health care systems on a comparative basis.

The HiT profiles provide a source of descriptive, up-to-date and comparative information on health care systems, which it is hoped will enable policy-makers to learn from key experiences relevant to their own national situation. They also constitute a comprehensive information source on which to base more in-depth comparative analysis of reforms. This series is an ongoing initiative. It is being extended to cover all the countries of Europe and material will be updated at regular intervals, allowing reforms to be monitored in the longer term. HiTs are also available on the Observatory's website at http://www.observatory.dk.

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The HiT draws upon an earlier edition (1996) written by Samvel G. Hovhannisyan (National Institute of Health, Armenia) and edited by Suszy Lessof (European Observatory on Health Care Systems).

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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 Care Systems.

The European Observatory on Health Care Systems is a partnership between the WHO Regional Office for Europe, the Governments of Greece, Norway and Spain, 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 the research directors Martin McKee, Elias Mossialos and Richard Saltman. Technical coordination is by Suszy Lessof. The series editors are Reinhard Busse, Anna Dixon, Judith Healy, Laura MacLehose, Ana Rico, Sarah Thomson and Ellie Tragakes. The research director for the Armenian HiT was Josep Figueras.

Administrative support, design and production of the HiTs has been undertaken by a team led by Myriam Andersen, and comprising Anna Maresso, Caroline White, Wendy Wisbaum, and Shirley and Johannes Frederiksen.

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Introduction and historical background

Introductory overview

The Republic of Armenia is a small, mountainous, landlocked country, covering 29 800 km^2 and bordered by Georgia in the north, Azerbaijan in the east, Turkey in the west, and Azerbaijan, Iran and Turkey in the south. Population density is 127 persons/km^2 with about 67% of the population urbanized and almost half living in the capital, Yerevan.

Administratively, the country is now divided into 11 *marz*, one of which is Yerevan (there were 37 administrative regions under the Soviet Union). The 10 *marz* other than Yerevan are further subdivided into 931 communities.

The present Armenian state lies in the area which historically was eastern Armenia. The region was dominated by Persians and Ottomans who fought over it for three centuries until it was taken over by the Russians in the early nineteenth century. In the nineteenth and twentieth centuries it became the battleground of Russians and Ottomans with disastrous consequences for the Armenian people. It is estimated that about 1.5 million persons died in the period 1915–1922 as a result of forced relocation, famine, and the Ottoman genocide of Armenians.

Following the Bolshevic revolution in 1918, eastern Armenia became an independent state, and hopes were raised that Armenian sovereignty over parts of western Armenia could be established. However, this did not materialize in view of Turkish rejection of the 1920 Treaty of Sevres (in which the Allies recognized Armenian independence). After a series of regional conflicts, Armenia became part of the Soviet Union in November 1920. While initially it was part of a Transcaucasian federation of Soviet republics, in 1936 it became a Soviet republic in its own right.

Under the Soviet Union, Armenia was able to preserve Armenian culture and was permitted to maintain its own script. However there was strong dissatisfaction with the boundaries set by the Soviet Union, particularly with

Fig. 1. Map of Armenia[1]

Source: Central Intelligence Agency, The World Factbook, 2000.

regard to the regions of Nagorny Karabakh, with a mainly Armenian population, and Nakhichevan, with a substantial Armenian population, both of which were given to Azerbaijan.

In 1988, the Regional Council of Nagorny Karabakh addressed the Supreme Council of the USSR with the request that it be incorporated into Armenia. The Soviet Union initially responded by imposing direct rule and sending troops,

[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 Care Systems 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.

but its collapse in 1991 allowed the violence to escalate into full scale war. In 1992 the Soviet troops came under Russian command and withdrew. By late 1993 Armenia controlled most of Nagorny Karabakh, and had established a corridor through Azerbaijan. In 1994 there was a Russian-mediated ceasefire which still holds today. Ongoing peace talks between Armenia and Azerbaijan have as yet failed to produce a solution.

Armenia formally declared its independence in September 1991. The head of state is the president. The legislature consists of a National Assembly composed of 131 seats. A new constitution, approved in a referendum of the July 1995 election, has been criticized from abroad for the sweeping powers it grants to the president, including the right to dismiss the National Assembly, to call new elections at will, and to approve executive and judicial officials without parliamentary approval. An amendment in 1997 empowered the president to appoint his own prime minister.

In the early years of independence, numerous developments including the lasting impacts of the 1988 Spitak earthquake;[2] the conflict over the Nagorny Karabakh enclave; the war with Azerbaijan in 1992–1993; the Azerbaijani–Turkish blockade of Armenia; terrorist attacks on energy supply lines; and economic and political collapse in neighbouring Georgia all contributed to the collapse of the Armenian industrial base and the destruction of infrastructure. According to the World Bank, real GDP contracted by more than 50% in 1992, followed by a further 14.8% drop in 1993. Like many other former Soviet republics Armenia faced rampant hyper-inflation, reaching nearly 11 000% in 1993, the second highest among the former republics of the Soviet Union.

A national currency, the dram, was introduced in 1993 to replace the rouble, and an IMF-backed stabilization policy was initiated in 1994. This was accompanied by structural reforms including mass privatization of state enterprises, market liberalization, and reforms in the banking sector. GDP growth has resumed an upward trend since 1994, with growth rates between 5% and 7% (with the exception of 1997 when GDP growth fell to 3.1%). Inflation dropped sharply by 1998 to under 9% and, in 2000, Armenia experienced a mild deflation (about minus 0.4%) due to falling food prices and low consumer demand.

The structure of Armenia's economy has changed significantly since independence. The share of industry in GDP dropped from 44.5% in 1990 to 23.4% in 1998, due to the war with Azerbaijan, the collapse in trade with the former Soviet Union and the transition to market prices. The recovery since

[2] The earthquake of 1988 affected 30% of the territory of Armenia, destroying 40% of the country's economic potential and leaving half a million persons without shelter. 25 000 persons lost their lives.

1994 has been led by the construction and services sectors, mainly trade and, to a lesser extent, banking and insurance following the restructuring of the banking sector. Agricultural output has fluctuated, but it is estimated that it is now nearly 10% higher than in 1992.

The huge economic contraction of 1992, along with war and corruption, have contributed to the development of a very large black economy, which was estimated to be about 36–44% of GDP in 1996.[3] Due to major efforts to curb tax evasion through improvements in tax collection and tax legislation, the black economy is believed to have declined in more recent years to an estimated 20% of GDP.

At the height of the country's problems, the President and the Minister of Health declared Armenia a disaster area. Although the most acute shortages of food, electricity, heat, transport and medical supplies have been alleviated, there continue to be concerns about nutritional standards and there remain real difficulties in securing pharmaceuticals. While much of industry is no longer functioning, the environment remains highly polluted, reflecting the historical concentration of industry in Armenia, which further jeopardizes health status.

According to official estimates, the population of Armenia was 3 798 200 at the end of 1998; however this is thought to be an overestimate. While large numbers of refugees (between 300 000–500 000 made their way to Armenia from other former Soviet republics or the Nagorny Karabakh enclave, an estimated 700 000 have left the country since the collapse of the Soviet Union. The population displaced by the war has not been able to return home and it appears that the refugee "problem" will be a long-term one. According to the most recent Soviet census taken in 1989, 93.3% of the population was Armenian, with the remainder including Azeris (2.6%), Kurds (1.7%), and Russians (1.5%). The Azeri Muslim minority has since left Armenia. The natural growth rate of the population has been declining rapidly, falling from 17.3 per 1000 in 1990 to 3.3 in 1999.

There is a large Armenian diaspora, consisting of about 4 million persons, 1.5 million of whom live in other former republics of the Soviet Union, and 2.5 million of whom are in other parts of the world (United States, France and the Middle East).

The official language is Armenian, with a unique alphabet, though Russian is widely spoken in urban areas. The predominant religion is the Armenian Apostolic Church; religious minorities include Armenian Catholics (the second largest religious group), Armenian Evangelic-Baptist Christians, Evangelical Christians, the Community of Adventists, the International of Bahais, Krishna and Mormons.

[3] Depending on the method of calculation; Economist Intelligence Unit, Country Profile, 1999–2000.

According to a UN sponsored report (National Report on Consumption in Armenia), 55% of the population live in poverty, while only 20% are well provided for. It is estimated that 80% of the population have access to health care, 85% to safe water, and 67% to sanitation.

During the Soviet era, Armenia had one of the best developed health care systems in the Soviet Union. The economic crisis has, however, severely curtailed the government's ability to provide adequate funding for health care, with major implications for health status. Life expectancy, which in the early 1980s was the highest of all the Soviet republics, fell in the early years after independence but, since the mid-1990s, has been climbing steadily, reaching 74.7 in 1999. Falling life expectancy in the first half of the 1990s was a reflection of worsening adult health due to increases in cardiovascular diseases, cancer, diabetes, tuberculosis and others. The incidence of major communicable diseases such as tuberculosis and HIV/AIDS has increased. Maternal and child health suffered partly as a result of diminished access, and poor quality of health care services. Outbreaks of waterborne diseases were caused by the degradation of poorly maintained water supply networks. Tobacco consumption is rising rapidly, and drug abuse is starting to be a problem particularly among adolescents. These trends have been the result of the breakdown of the centrally-planned economic system and the socioeconomic hardships of the transition period, particularly 1992–1994.

Table 1. Trends in health status

Indicators	1991	1993	1995	1997	1999
Life expectancy at birth (years)	72.58	71.15	72.99	74.08	74.70
IMR, per 1000 live births	18.04	17.75	14.24	15.41	15.67
MMR per 100 000 live births	23.13	27.10	34.72	38.70	32.90

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

Historical background

The Soviet domination of the health system was such that no traces of pre-Soviet health care traditions were discernible at the time of independence. Rather the country inherited a highly centralized system organized in line with the Semashko model. The whole population was guaranteed free medical assistance regardless of social status and had access to a comprehensive range of secondary and tertiary care. Nevertheless the quality did not comply with western standards, and unofficial gratuity payments were commonly expected especially for secondary and tertiary care.

The country was divided into 37 administrative districts (rather than oblasts) each of which had a hospital and associated polyclinic providing ambulatory and primary care. Rural areas were provided with health posts and feldsher stations. Each individual was registered with a health institution according to their official place of residence and assigned to a named physician. While access to all levels of health care was guaranteed by the constitution there was no choice of physician as such and no right to register with a polyclinic other than the most local.

The system was highly centralized with vertical management dominating. While local government was directly responsible for financing district health facilities, all funding levels and mechanisms were determined by the state. District government acted as little more than a conduit for revenue. There were government norms governing facilities to be provided per head of population, the acquisition of technical equipment, the services to be offered, staffing levels and volume of work. Payment of both hospitals and physicians was agreed centrally and did not reflect the actual volume of activity, its effectiveness or quality. This approach discouraged individual initiative and prevented either medical staff or institutions from responding to health needs creatively. Furthermore it stifled management development and left both hospitals and local government bodies lacking in management capacity.

The system at the end of the Soviet era may also be characterized as one in which individuals in contact with the health care system were discouraged from taking personal responsibility. This applied equally to the population which, having been assured of free and unlimited health care, had little sense of responsibility for their health status, and to the medical professionals who had no incentive to control costs or deliver a quality service. The Armenian Republic thus inherited a health service that was both demoralized and inflexible. Secondary medicine was prioritized at the expense of primary care and rural areas were disadvantaged relative to urban districts. There was over-staffing and an over-provision of hospital beds, and no incentives were in place to encourage the rationalization of health care delivery.

Immediately following independence, Armenia faced devastating economic and sociopolitical problems which led to a decline in health status and put overwhelming strain on the health care system. Existing weaknesses were exacerbated by the conflict, the influx of refugees and the widespread shortages, underlining the shortcomings of the Soviet model. This reinforced the political demands to reform the health system, which were rooted in a desire to replace the intense centralization of the Soviet era with more open and democratic structures. However, the most compelling pressure for health sector reform was the utter impossibility of sustaining existing health services in the new

economic climate. Armenia was simply not in a position to continue to fund a cumbersome, expensive and inefficient system and was obliged to devise a radical reform programme.

Organizational structure and management

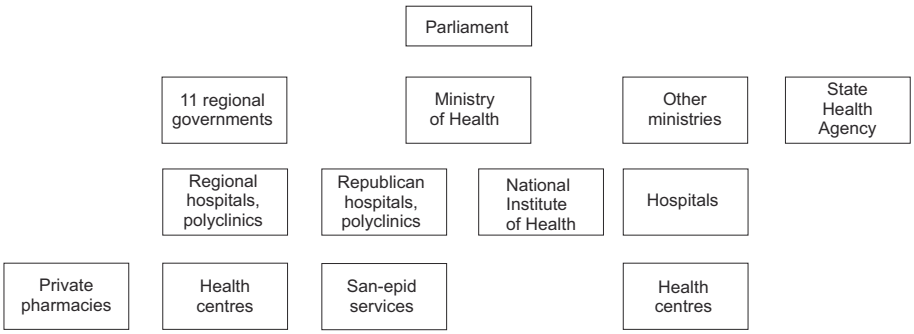
Organizational structure of the health care system

Despite the radical nature of health sector reform in Armenia, the core organizational structure of the system has undergone very little change. The National Assembly (the parliament) is responsible for lawmaking and development of legislature for the health sector. The Ministry of Health oversees and is responsible for health services overall and for the reform process. Under the Soviet system there were 37 administrative districts, each with its own elected council, hospital and polyclinic. Independence has seen the amalgamation of the various local units into 11 regions *(*10 *marz* and Yerevan), each with a *marz* director appointed by the president and a regional "government" that funded core health services for the local population with health care coverage, until the State Health Agency took over this function in 1998. All the hospitals and polyclinics, rural health units including village health centres, ambulatories and health posts of the previous system continue to function. Where formerly hospitals had nominal accountability to the local administration and were ultimately answerable to the Ministry of Health, they now have autonomous status and are increasingly responsible for their own budgets and management. Local government however, continues to monitor the care provided while the Ministry of Health retains regulatory functions. The Ministry also maintains the network of san-epid stations inherited from the Soviet system, ensuring the collection of epidemiological data and a first-line response to environmental health challenges or outbreaks of infectious disease. The san-epid stations were renamed in 1997 as centres of hygienic and anti-epidemic surveillance.

Ministry of Health

The Ministry of Health has undergone enormous change. Where previously it was large, cumbersome and bureaucratic, it has now been reduced in size and

Fig. 2. Organizational chart of the health care system



is expected to commission much of its research and policy development work to free-standing agencies. The Ministry of Health presents health policy for approval to parliament and is the key force in determining national health policy. It has also retained its role as the ultimate arbiter in terms of medical education, licensing, regulation and setting standards. However, the Ministry is increasingly divesting itself of its centralized powers and responsibilities as the reform process deepens. Its continuing functions include:

- health policy development and implementation
- the drafting of the publicly-funded health system budget
- health needs assessment
- licensing and regulating physicians and hospitals
- the licensing of pharmaceuticals
- human resource planning
- the central collection and analysis of epidemiological data.[4]

The Ministry of Health has established a Department of Reforms, Programme Implementation and Monitoring, which focuses specifically on change. In 1997 the Department of Health Policy and Development Programme was established, which is headed by a vice-minister and in addition to developing health policy and strategy plays a key role in the coordination of health programmes and lobbying for new legislation. It works closely with the National Institute of Health which now drafts both policy statements and legislation (work that previously was carried out only within the ministry itself). The National Institute

[4] Drawing on the work of the san-epid network.

of Health was established recently through a merger of a number of research and continuing education institutes.

The Ministry of Health also works with the Ministry of Education on medical education and is currently engaged in the reduction of numbers of students beginning medical education.

In addition, the Ministry of Health continues to be the third-party payer for certain state-level services; its former role of third-party payer for services included in the state's basic package (Basic Benefit Package: see the section *Health Care Benefits and Rationing*) was taken over by the State Health Agency in 1998.

In accordance with a presidential decree of February 2000, the Ministry of Health and the Ministry of Social Welfare were integrated into the Ministry of Health and Social Affairs; however, in May of the same year, they were once again split into the former Ministry of Health and Ministry of Social Welfare.

Other ministries and institutions

The Ministry of Health collaborates with a number of other ministries or agencies in order to realize its objectives:

- The Ministry of Finance plays a critical role in the verification and adoption of health sector budgets. It is also responsible for the collection and disbursement of tax revenues, serving both the Ministry of Health and the State Health Agency.
- The Ministry of Education shares responsibility for undergraduate medical and nursing education.
- The Ministry of Social Affairs is charged with the protection of the most vulnerable segments of the population and, in conjunction with the Ministry of Health, seeks to provide additional care for the elderly, refugees, war veterans, the handicapped, etc. However, resource constraints severely restrict the ministry's capacity to fulfil its mission and much of the burden of providing social care has fallen on traditional family networks or on the health service. A scheme has now been introduced to alleviate the burden on the health system imposed by the vulnerable whereby the Ministry of Social Affairs purchases additional bed days for the care of the most socially disadvantaged.
- Other government ministries responsible for housing, employment and environmental protection also formulate policy that impacts on health status and will consult with the Ministry of Health where appropriate.

- In 1998 the State Health Agency (SHA) was established with World Bank assistance, in an attempt to separate provision from financing. While the Ministry of Health remained responsible for health care policy and provision, the responsibility for financing was transferred to the SHA which assumed the role of third party payer. It is a government organization independent of the Ministry of Health, established as an initial step in the direction of developing a full-scale social insurance organization (collection of social insurance premiums and payment of providers). As all public financing of health care is via taxation revenues, the SHA receives the state allocations for health from the Ministry of Finance and distributes these to health care facilities. The SHA has developed into a large bureaucracy that has become competitive with the Ministry of Health.
- Parallel health networks that belong to other ministries and are funded from their budgets (e.g. the Ministry of Defence and the Ministry of Internal Affairs) are also involved with health care provision. These date from the Soviet period and operate a limited range of primary care facilities and a small number of hospitals. They are, in many ways, anachronistic and tend to duplicate mainstream provision. It is hoped that these institutions will adopt the reforms taking place in the rest of the health sector. However, they are under no obligation to conform with new guidelines since they report to their respective funders and are completely independent of the Ministry of Health.
- In July 1996, the Armenian Health Information Analysis Centre was established with autonomous status, but under the umbrella of the Ministry of Health, and is responsible for developing a health information system.

Regional/local government

The 37 district administrations of the Soviet era were responsible for passing funds to local health facilities. They did not, however, play a particularly meaningful role in tailoring health sector provision to local needs since planning and resource allocation decisions were taken centrally. Following the restructuring of Armenian local government, there are now 11 regional governments and these have taken over district responsibilities for health care.

The role of regional governments as the third-party payers for health care ended in 1998 when this was taken over by the State Health Agency. Traditionally district administrations passed an agreed funding allocation to hospitals in accordance with national norms. The beginnings of the reform process in the

mid-1990s saw a shift to quasi-contracts and a case-based payment approach in the case of hospitals and large polyclinics. Whereas the case-based approach is not as yet very widespread, the State Health Agency is pushing it and would like to see case-based funding in every facility throughout the country.

Regional governments tend to have little input into planning or regulatory activities, though within the context of World Bank funded activities, *marz* health departments have been involved with various aspects of the Bank project activities, including the development of "optimization plans" which aim at restructuring hospital facilities on the basis of various criteria such as beds per population and utilization rates. Regional governments do not contribute significantly to the management of the network of san-epid stations[5] since the Ministry of Health continues to carry out core central functions and to fund the collection of epidemiological data. There is still a degree of accountability of health institutions to local government in that they must report on funded activity, but hospitals and polyclinics are increasingly autonomous. While, in the long term, it is hoped that regional administrations may focus more attention on health and adopt policies that promote health status, the thrust of the reforms is to strengthen the independence of hospitals and allow market mechanisms free reign, though with some government influence through the workings of such features as optimization plans.

Hospitals

In 1993 state health care institutions became state health enterprises, or semi-independent units which could generate their own revenues parallel to state budget financing. As of 1995, hospitals were permitted to provide private services in addition to state-funded ones. Hospitals and polyclinics are now autonomous, self-financing enterprises with considerable decision-making powers. Since 1997 the services for which hospitals could charge patients came under government regulation. As of 1999, health care institutions began to set prices,[6] determine staffing levels and negotiate contracts with staff. Each institution is to be responsible for covering its own costs and for attracting a sufficient volume of work to secure its financial future. The Ministry of Health will continue to set standards and through an extension of the licensing system will attempt to influence the nature of services offered but, nonetheless, hospitals and polyclinics are set to play an increasingly significant role in the organization and management of health services.

[5] There are still 37 district stations in addition to the Republican Centre, a legacy of the previous system.

Insurance organizations and enterprises

There is no effective health insurance scheme currently in operation in Armenia although it is expected that a voluntary insurance system will develop. Legislation has been passed, paving the way for voluntary schemes and the possibility of funds based on payroll deductions and employee and employer contributions have been investigated. Details of the nature of cover to be offered, contribution rates and risk-adjustment have yet to be considered.

March 1998 legislation providing for voluntary insurance also set out a framework for contracting between enterprises and hospitals. In the Soviet era large enterprises typically "hosted" on-site polyclinics and financed the care provided. However, with the country's economic collapse, these have been closed down and enterprises no longer contribute to the health care costs of their employees. The new legislation envisages the establishment of direct contracts between enterprises and hospitals for the provision of a basic package of health care for all workers. As yet, no such contacts have been agreed.

The precise role of these "new" third-party payers in priority setting, regulation, etc. remains unclear, but the autonomous status of hospitals and polyclinics gives them the authority to negotiate and enter into contracts[7] on whatever terms are agreeable. While there is clearly enormous potential for both insurance fund and enterprise purchasing of health care, the economic difficulties facing employers make rapid progress unlikely.

The long-term vision is of a system of comprehensive compulsory health insurance whereby most of the population will be covered. (For more information, see the section on *Main system of finance and coverage*). It is estimated that the development of such a comprehensive system may take at least ten years, as it depends upon the achievement of significant increases in per capita GDP, reductions in informal payments both in the health sector and the economy generelly and improvements in the tax system including increased compliance with payment of income tax. A less comprehensive mix of voluntary and compulsory insurance systems may be achieved at an earlier stage.

Private sector

There was no tradition of private medicine in Soviet Armenia, although physicians did traditionally offer advice and care in a network of informal contacts and did receive small gratuities in recognition of their services. More recently the private sector, with a few notable exceptions, has been slow to develop. The legislation of January 1996 allowed for private practice by licensed

[6] Within constraints set by the Ministry of Health.
[7] Either with insurance funds or directly with employers.

physicians but, to date, very few of these have appeared (mainly some obstetrician–gynaecologists and psychiatrists, but these too in very small numbers).

While legislation permits the establishment of private hospitals, the Civil Code of the Republic of Armenia, adopted in 1998 (in part regulating hospital activity), does not allow the establishment of non-profit hospitals. As a result, according to current legislation all hospitals, regardless of status and ownership (state, private, charitable, etc.) are considered to be for-profit institutions, even though they may be operating as non-profit ones. This has given rise to a movement to make a legal distinction between profit and non-profit hospitals on the grounds that the latter should not be liable to pay taxes on profits.

At the present time there are several private hospitals in the country: the Proctology Centre, the Institute of Surgery, and the Arabkir Medical Centre (which operates as a non-profit organization). In addition, there is one partially private hospital institution, the Centre of Perinatology, Obstetrics and Maternity, where at least one third of services are provided to the state.

The Arabkir Medical Centre is a pediatric centre specializing in uro-nephrology and surgery. In 1995 it joined forces with Swiss and Belgian partners to form the Arabkir United Children's Charity Foundation (Arabkir UCCF), whose mission is to improve the health of Armenian children. It is financed jointly by the Armenian state and the Belgian and Swiss partners, together with user charges (in 2000 the Armenian state and out-of-pocket payments covered about 25% each, with the remaining 50% being covered by the Belgian and Swiss partners).

A private diagnostic centre has been set up in Yerevan as a joint-stock company. While it is 80% privately owned, the government has retained a minority interest. The bulk of its equipment was taken over from the state, although some has been acquired subsequently through contacts abroad. The centre itself financed the construction of new premises in 1995. Most of its work is carried out privately although the state has rights to use services free-of-charge. The Ministry of Health agrees with the centre on the number and mix of investigations that will be undertaken for the public sector, and allocates these between regions in accordance with population levels to ensure that there is equity of access to these highly-specialized services.

The other key area affected by privatization is drug retailing. Practically all pharmacies have now been privatized and, although subject to strict monitoring and regulation by the Ministry of Health, they operate as private for-profit enterprises. Some few exceptions involve pharmacies in rural areas or those affiliated with health facilities. Dentistry is currently in the process of being

privatized. In the case of some clinics preference is shown for remaining within the state sector as the clinic can continue to get government support. The dental "offices" attached to standard polyclinics will remain in the public sector in the short term although they are now part of self-financing autonomous enterprises and will charge for most of their services.[8] School dental services were cut tremendously and completely paralysed over the last decade. There is virtually no school dental service (preventive or curative).

There are also five private medical schools and ten private nursing colleges[9] which were set up on independence although they are not recognized by the Ministry of Health and their students are not entitled to sit state medical exams. The first privately-trained doctors are due to graduate in the near future, but will not (under existing plans) be licensed to practice. In March 2000, one of these medical schools seeking recognition won a case in court. However, none has been accredited by the Ministry of Health (or its regulatory, accrediting body). The licensing of health professionals who graduated from these schools is still not allowed.

Professional groups

The professional groups and trade unions of the Soviet era were discredited and are now largely defunct. A new physicians' association was set up in 1992 and a new nurses' association was founded in 1996 but they have failed to have a significant impact either on health policy or professional matters.

The Armenian Public Health Union is a national, independent, not-for-profit, voluntary association representing public health in Armenia with links to the international public health community. Its mission is to constitute a special national resource in Armenia that advocates for the improvement and maintenance of personal and community health according to the public health principles of disease prevention, health promotion and protection and healthy public policy. Areas of interest are disease surveillance and control, disease prevention and health promotion, human and ecosystem health, equity and social justice, administration and management of health services.

Associations of different medical specialties have also been established (such as associations for cardiologists, surgeons, gynecologists, neurologists, family doctors, etc.) which hope to have more input into standard setting and the dissemination of scientific information. Doctors and nurses now negotiate individual contracts with their employers (normally the hospital or polyclinic director).

[8] Almost all dental care is excluded from the minimum basic package underwritten by the state.
[9] Compared with the one state medical school and seven official nursing colleges.

Voluntary organizations

There were no voluntary organizations as such under the previous system and the extreme economic and social hardships of recent years have militated against the organization of the population into either charitable organizations or pressure groups.

There is, however, a range of international nongovernmental organizations (NGOs) working in Armenia to deliver humanitarian assistance and implementing health programmes. These organizations and their activities include:

- **Gulbenkian Fund:** Donated funds for the establishment of a chemical laboratory on analyzing drugs at the hospital of the National Institute of Health.
- **UNHRC:** The main activities of this organization involve distribution of medicines in rural areas.
- **Save the Children**: This organization implemented a project aimed at reconstruction of rural ambulatories.
- **AGBU** (Armenian General Benevolent Union): Plastic and Reconstructive Surgery Centre (PRSC) was opened in Yerevan.
- **USID/SCF:** Funded Pharmaceutical Distribution Programme.
- **International Federation of Red Cross and Red Crescent Societies:** Provide support for post-earthquake rehabilitation and construction, medical programmes, training programmes, malaria control.
- **The Armenian Red Cross**
- **German Red Cross**
- **Médicins sans Frontières (MSF) France:** Started a programme in August 1995 for prevention and treatment of STDs; now they implement many medical programmes.
- **Médecins sans Frontières (MSF) Belgium:** Worked in Armenia since 1988. Their first intervention was aid for the victims of the earthquake, now they implement many medical programmes.
- **Aznavour pour l'Arménie:** Sponsored the opening of Erebouni Hospital Orthopedic Department, to the Prosthesis Centre in Marash. Present activities include medical distribution of baby food, whole milk, and infant formula; rehabilitation of baby food factory.
- **FAR (Fund for Armenian Relief):** Sponsored educational training programmes for health care providers and health managers, the National Medical Library and Information Network; provides equipment and medical supplies.

- **Medical Outreach**, **UMAF/Marsel, UMAF/Paris**, **UMAF/Lion,** Equilibre, World Rehabilitation Fund.
- **OXFAM:** Sponsors community PHC services.
- **TACIS:** Provides support for health care reform.
- **United Methodist Committee on Relief (UMCOR)**: Provides support for pharmaceuticals, primary health care in rural areas, reproductive health, maternal nutrition.

Planning, regulation and management

Prior to independence, the Ministry of Health was responsible for almost all health services planning and regulation, and set all management norms. The most recent reforms are set to change all established practice. Many of the areas that were previously subject to central control are increasingly decided upon by market forces. The Ministry of Health will still play a key role. It is responsible for formulating reforms and overseeing their implementation; it will continue to monitor health status, standards of care, etc.; and it is the only body able to license medical practitioners and health care institutions. Nonetheless, the new approach to the supervision of health services represents a radical departure from the past.

The Armenian health system in the Soviet era was organized according to an integrated model with all health service institutions being directly owned or employed by the state. It is now made up of a network of independent, self-financing (or mixed financing) health care providers carrying out a mixture of statutory services and essentially private work. This new approach does not entirely follow the contract model in that third-party payers (the Ministry of Health or the State Health Agency) do not negotiate detailed contracts with hospitals or polyclinics, but there is a separation of purchaser and provider functions. Providers are legally obliged to treat all patients covered by the state's basic package, and third-party payers fund such care through prospective care payments with adjustments made quarterly to ensure payments correspond to the volume of activity carried out. There is no local negotiation over price; rather, the Ministry of Health sets a single tariff for all outpatient visits and decides prices for all inpatient care using a fixed price per bed day, average length of stay per case type, and a coefficient to weight prices according to treatment costs for each of the 43[10] recognized categories of care. All treatment not covered by the state is paid for out-of-pocket with prices set ad hoc independently by each hospital or polyclinic. According to Decree No. 174 of 1998 the government is responsible for the provision of health services for the

majority of the population. This position stands in striking contrast to the actual situation, in which only vulnerable groups have coverage, and is indicative of the government's commitment to support the health care system while in fact it does not have the financial resources to do so. The main revenue of the health care facilities is through user fees and informal payments. The Ministry of Health is in a continuous process of developing a "realistic package" in line with the available budget, and in line with realistic prices for the services provided by the health facilities. In 1999 the Ministry of Health increased user fees on ambulatory and emergency services. While the new package is believed to be an improvement over the previous one, and prices more realistic, this did not completely solve the problems of access to services by the most vulnerable[11] and informal payments remain prominent.

Planning

The Board of the Ministry of Health consists of the heads of all Ministry Departments (vice ministers) and representatives of the National Institute of Health and reviews all plans for health services. It is the *de facto* national planning agency for health. There is no equivalent at a regional level. The Board and the Ministry of Health's approach to planning is predicated on the belief that the Armenian health system is overstaffed and over-provided with health care facilities and an effective means of adjusting capacity is to allow market forces to play a role in determining which hospitals or primary care facilities will remain open. The Ministry of Health has therefore revised funding mechanisms so that health care institutions must become largely self-financing.

While the population no longer entitled to free health care must pay for all treatment out-of-pocket, at prices set by the provider, all hospitals and polyclinics are obliged by law to continue to treat those parts of the population covered by the state's basic health care package. Since the third-party payments for these services are set at levels estimated to fall below treatment costs, health care institutions must therefore generate a surplus on treatment paid for out-of-pocket in order to cover their expenses and meet salary and other bills.

The Ministry of Health expects approximately 50% of the health care institutions to go bankrupt in the face of these demands. Its policy appears to be based on a somewhat contradictory combination of market forces on the one hand, and development of "optimization plans" by regional governments on the other, which focus on the planned reduction of hospital bed capacity by

[10] Categories of care for case payment purposes are extremely broad i.e. internal medicine, thoracic-surgery, physiotherapy, and cover a comprehensive range of services

[11] The vulnerable groups are exempt from payment, and the paying portion of the population in effect subsidizes to some extent the non-paying portions.

use of such criteria as beds per population. Further, there is no coherent strategy concerning what should be done with the resulting unemployed resources. The Ministry of Health has also abandoned the planning of capital investment and the acquisition of equipment opting to pass these responsibilities to provider units.[12] The decision to abdicate responsibility for this dimension of planning reflects both a belief in the rationality of the market and the political difficulties associated with trying to achieve hospital closures.

This reliance on the rationality of the market is echoed in other areas of health policy. The Ministry of Health is clear that, in terms of health care priorities, it wants to see a shift from secondary and inpatient care to primary, preventive and ambulatory care and it expects the market to play a significant role in achieving these ends.

The separation of the management of polyclinics and hospitals in the mid-1990s has removed perverse incentives for hospital directors to encourage high admission levels. Third-party payments for inpatient care of the covered population have been set below costs thus discouraging unnecessary and prolonged hospitalization. Further, where an admission is necessary, payment is by average length of stay per case with hospitals retaining any savings made by a reduction in bed days used. This creates an incentive for hospitals to enhance efficiency and minimize length of stay which will, in turn, lower the national norms used to determine case payments in future years. The pricing structure also encourages the return of patients to the primary sector for follow-up care. While third-party payments for ambulatory visits are also set below market levels, the discrepancy between payment and cost is less than for inpatient care. The new payment structure should create incentives for primary care physicians to prioritize preventive rather than curative medicine thus furthering Ministry of Health policy objectives.

The population that must now pay for treatment is also expected to take economically rational decisions that reflect the Ministry's underlying agenda. They should choose to buy care in the more cost-effective primary setting and, in the long-term, opt to purchase preventive services. A reduction in average length of stay is also expected since patients funding their own treatment will be paying a per diem fee for hotel services. Market mechanisms should therefore favour primary and preventive medicine although it is too early to judge whether these measures will achieve the desired outcomes.

While the Ministry has chosen to leave much to be decided upon by market forces it is also considering the active use of the licensing process to ensure that rationally determined priorities govern health care provision. Current licensing procedures focus on ascertaining that medical practitioners and health

[12] There are 'renovations' budgets at both republican and regional level but the funds held are insignificant.

institutions are fit to offer a service. The Ministry wishes to extend the scope of this process to determine whether the service offered is appropriate given the care setting and the population's health needs. Current proposals envisage a system in which practitioners and provider units will be licensed to carry out only those procedures which are deemed appropriate in the given context. This will allow the Ministry to define effectively the boundaries between primary, secondary and tertiary care and to restrict expensive, high technology procedures to particular settings. These de facto planning powers will enable the Ministry of Health to prevent any drift from primary to secondary medicine.

This reintroduction of central management contrasts with the planning of human resources in which the Ministry is openly involved. While the Ministry of Health will not be taking steps to reduce existing staffing levels, preferring to leave this to provider units who directly employ their own staff, they are taking a proactive role in controlling the production of doctors. They have refused to recognize private medical training and reduced the places available at the state medical school. Cuts in places at nursing colleges are also under way.

Regulation

As the Ministry of Health has chosen to withdraw from the planning arena, it has come to rely more heavily on its role as a regulator. Regulatory functions are almost all carried out centrally by the Ministry of Health with regions playing a minimal role in verifying provider activity levels as part of their role as third-party payers. The following areas are covered by regulation:

- **pharmaceuticals** – the Ministry of Health together with the Drug and Medical Technology Agency monitor quality and the Ministry of Health regulates prices limiting the profit levels of private pharmacists. However, the prescription drugs are still not controlled and are widely sold without a doctor's prescription.
- **medical education and training** – undergraduate medical and nursing schools must meet standards determined by the Ministries of Health and of Education and student numbers are regulated by the Ministry of Health's Human Resource Department. Postgraduate training is governed directly by the Ministry of Health which has introduced legislation governing the specialization process and introduced residencies in all specialties. It also insists that qualified staff undergo continuing education as part of the re-licensing process.
- **equipment** – while the Ministry of Health has increased provider autonomy allowing all health institutes to purchase equipment independently it is to

license the use of all high technology to ensure standards are maintained and ultimately to contain the growth of secondary and tertiary medicine.

- **staff remuneration** – the Ministry of Health has dismantled the mechanisms that controlled staff remuneration and is to leave decisions on the payment of staff to the provider units that employ them.
- **prices of medical services and hospital profits** – the Ministry of Health sets the prices of all components of the basic package of care centrally. It defines the price of an outpatient visit and determines case payments using average length of stay per case type and a weighting coefficient reflecting the costs of different categories of care. It allows provider units to determine the price of treatment to be paid for out-of-pocket but limits hospital and polyclinic profits as a percentage of costs.
- **health care providers** – the Ministry of Health is the sole body responsible for the licensing of physicians and hospitals. It has a professional board responsible for assessing the professional suitability of all practising doctors (who are licensed for a period of five years only) and separate mechanisms for instituting checks of hospital conditions, safety, equipment, etc. The Ministry of Health plans to extend the functions of the licensing process to control the boundaries between primary, secondary and tertiary medicine and so encourage a shift to ambulatory, primary and preventive care.

Management

Management responsibility for primary, secondary and tertiary services has been passed to provider units themselves. There are no national, regional or local powers to plan the provision of health care facilities although the san-epid public health network continues to be supervised by the Ministry of Health.

The State Health Agency, as third-party payer, has little management input although it effectively "contracts" with hospitals and polyclinics[13] to provide care for the population covered by the basic package. Its management role is limited because prices are set by the Ministry of Health and it is obliged to finance all care required by covered groups. There are no examples of a third-party payer negotiating special rates with provider units and the SHA has no rights to limit the amount of care it is prepared to purchase. However, the Ministry of Health devotes considerable efforts to calculating resource allocations in order to ensure that prospective budgets match likely levels of activity and that the State Health Agency will not be called upon to finance treatment in excess of the funds allowed. The SHA does have management responsibility for reviewing prospective budgets and adjusting them to reflect actual activity levels.

To date, there has been almost no citizen participation in the planning or management of health services. However, the fact that the Ministry of Health has chosen to use market mechanisms to force the closure of surplus provider units reflects the fact that public opinion, which would oppose the reduction of services, is perceived as a powerful political force and has a tacit influence on health policy decisions. However, the Armenian public is not strongly involved in this and is weak to judge quality.

Decentralization of the health care system

The health sector reforms have led to a marked decentralization of health system authority although the Ministry of Health retains significant powers and plays a crucial part in pushing the reforms forward. There are elements of devolution and privatization within the decentralization process both of which are contributing to a new flexibility within the health sector.

Devolution

The process of decentralization has meant that the Ministry of Health has given up some of its responsibilities. However this has produced tensions as Ministry of Health authorities resist transferring their power to other authorities.

In the initial phases of decentralization (from the mid-1990s until 1998) regional governments became third-party payers for much of the health care that fell within the state's basic package of services. Responsibility for agreeing contracts with local providers, for monitoring quality and for adjusting prospective budgets was passed to local authorities which were given a degree of independence from central government with respect to their functions. Nonetheless, the Ministry of Health continued to set prices and define the rights of the population with respect to coverage.

The main transfer of responsibility from the Ministry of Health came in 1998 with the separation of financing and provision of health care which was achieved through the establishment of the State Health Agency (SHA) by the Government Decree No.593 on 18 December 1997. The SHA has been intended to take on full responsibility for management of state financial resources for health. In the last three months of 1998, an experimental programme was run for this purpose, enabling SHA personnel to acquire the requisite skills for the operation of the SHA, and for the clarification of relations between regional structures and service providers. Since 1 January 1999, the SHA has become

[13] Basing prospective budgets on historical activity levels.

fully functional as the only governmental body in Armenia with the authority to reimburse providers of the state's package of services.

In addition, since 1996 responsibility for provision of primary and secondary care has been transferred to regional and local governments. While the Ministry of Health at the central level remains responsible for tertiary level institutions, most hospitals and polyclinics have become the responsibility of the state at the regional (*marz*) level. Since 1998 rural outpatient clinics have come under the community (village) level. This subsequently gave rise to fears that rural areas were given too much authority, and the government in more recent years has wanted to partially reverse this decentralization process. The issue is at present under discussion.

Further, provider units have seen a major change in their legal status. Budgetary health facilities were given the status of state health enterprises financed in accordance with the actual volume of services provided (rather than through the previous fixed budget lines), and in 1998 became state-owned joint stock companies. Hospitals and polyclinic directors are permitted to independently manage their own financial resources, set prices for services to be paid for out-of-pocket, decide on staffing mix and set terms and conditions of service, retain any profits generated and invest surplus income as they see fit. They contract with both local and central government to provide the care included in the basic package although they have no autonomy in deciding on the price or volume of services paid for by the statutory system. They also have the right to negotiate and sign contracts with insurance funds or enterprises wishing to purchase health care, although this has yet to happen in practice. Moreover, primary care facilities (polyclinics) were freed from hospital administrative supervision.

The change in status of hospitals and polyclinics has contributed to intensifying the severe financial difficulties faced by these institutions on account of the fact that as joint-stock companies they are liable to pay taxes. In fact, they face huge debts because not only are third-party payments set below treatment costs but, in addition, the State Health Agency is unable to reimburse them according to the agreed prices for services provided within the state's basic package due to shortfalls in its own budget.

Privatization

Privatization in the health sector has proceeded less rapidly than in other sectors of the economy. The first document outlining privatization proposals was submitted to the government by the Ministry of Health in 1994, and additional approaches to privatization were developed and presented in subsequent years.

To date, nearly all pharmacies and medical technical services have been privatized, and dental polyclinics began to be moved to the private sector in 1996, with approximatly one third being privatized to date. In addition, legislation has paved the way for physicians to set themselves up in private practice. To date, however, very few of these have made an appearance. The overwhelming portion of health care facilities remain in the public sector.

In 2000 a document entitled "Concept on the strategy of privatization of health care facilities" was presented to the government, and was discussed and agreed upon in July of the same year. Objectives of privatization outlined in the document are the following:

- improvement of health system financing through generation of additional funds from private sector investments;
- improved efficiency of health service provision through managerial improvements based on market principles;
- expansion of quality medical services provided;
- expanded choice of medical services for consumers of health care.

The document notes the need to devise principles of selection of health care facilities to be privatized, taking into consideration the uneven distribution of facilities throughout the country and the need to avoid disruptions in the functioning of the system; alternative criteria that can be used to evaluate expected efficiency improvements; the need and types of state support to facilities to be privatized; alternative methods of privatization; and finally, problems that may arise in the course of privatization.

Future directions

The Ministry of Health is committed to the continued decentralization of the health system. It anticipates that enterprises, as they recover economically, will increasingly purchase health care and that voluntary insurance schemes will emerge. This implies a rise in the level of contracting and a dissemination of decision-making and priority-setting. It also envisages the State Health Agency taking a more active purchasing role. However, in the short term, attempts at decentralization are hampered by the economic climate which precludes the development of purchasing by nongovernmental bodies and by the lack of management and financial skills at regional level.

The severity of the crisis facing the Armenian health system has also undermined attempts to devolve power, obliging the Ministry of Health to take a directive approach to the implementation of change. Given the current situation in Armenia and the difficulties of transforming a monolithic health system

in crisis, it is perhaps inevitable that the Ministry should take a proactive approach and be heavily involved in the reform process. As the economy stabilizes however, and the reforms are bedded down, the Ministry of Health will be able to withdraw further from the direct management of the health system and consolidate steps taken towards decentralization.

Health care finance and expenditure

Main system of finance and coverage

The Armenian health system has undergone a radical transformation in its system of finance as of March 1996. The system during the Soviet era, and from independence until early 1996 was compulsory and tax-based with funding for health care being drawn from general taxation. All health care was free at the point of use although under-the-table payments were a common feature. However, since independence, government income fell sharply while the costs of health care mounted. The planned proportion of the state budget devoted to health services grew to over 13% in 1996 and still proved insufficient to meet health care needs. This situation was held to be untenable and as a consequence of Armenia's severe economic problems, and in particular the extreme difficulties experienced in collecting tax revenues, a predominantly private out-of-pocket system was introduced.

In March 1996, a law "On medical aid and medical services for the population" was adopted by the National Assembly, which in effect abolished the previous system of health care financing by legalizing alternative financing mechanisms including private out-of-pocket payments. This was followed by a government decree in 1997 which introduced out-of-pocket payments for the bulk of health care services provided to all non-vulnerable and non-targeted groups of the population.

The framework of the historical system was retained in the attempt to fund a basic package of health care for vulnerable groups and other priority recipients of assistance. Health care is still funded from general tax revenues and the income is distributed between the Ministry of Health and State Health Agency, which in turn, on a per capita basis, distributes it between the 11 regional governments. Some adjustment is made for the relative levels of disadvantage in each of the regions.

The Ministry of Health retains responsibilities for the main, republican hospital and other republican centres of excellence and for certain republic-wide services like immunization programmes, screening and AIDS initiatives. It funds care of priority groups in the tertiary sector and the state programmes carried out at a regional level. The State Health Agency pays for the treatment of priority cases in the primary or secondary setting. There is no mechanism in place to allow either the Ministry of Health or any regional government to charge another region for care provided to its residents.

As state-funded health care services were cut back in the face of severe funding shortages, coverage was limited to certain priority areas and priority (vulnerable) groups (see the section on *Health care benefits and rationing*). While coverage in certain few instances is extensive, the majority of the adult population is no longer covered under ordinary circumstances. Everyone, except members of the special groups defined as vulnerable by the Ministry of Health, must pay in full for all medical care. The Basic Benefit Package (BBP) is the publicly-funded package that includes a list of services covered and a list of populations that are eligible for coverage. The BBP is renewed every year, and services/groups may be deleted or added accordingly.

The Ministry of Health is attempting to develop a "realistic package" in line with the available budget, as well as in line with realistic prices for the services provided by the health facilities. Evaluation of the BBP implemented in 1998 showed that symbolic prices calculated for health services (i.e. prices actually paid by the state) worked to increase informal payments, because the prices were set too low and could not possibly cover all expenses incurred. For that reason, patients were asked to bring their own drugs to the hospital or pay additional (informal) charges for services. For the development of the BBP for 1999, one of the main issues was identification of target families that fulfil poverty criteria. The earlier approach based on criteria of socially vulnerable groups was misleading as an individual/family could be identified as belonging to a vulnerable group, and yet also could afford to pay. This issue has yet to be solved by the Ministry of Social Welfare. More recently there was an attempt to address this issue by merging the Ministry of Health and Ministry of Social Welfare in the hope of increasing the efficiency and accuracy of identifying the most vulnerable groups. However, after some months the Ministries were split again. As of today, no effective system been developed for vulnerable group identification.

As yet, there is no effective insurance system in operation in Armenia, either statutory or voluntary. There are some private companies which provide voluntary insurance health programmes

It is estimated that direct out-of-pocket payments constitute about 60% of total financing for health care in Armenia; however, this may be an underestimate. The inadequacy of levels of state funding for health care is obvious, and the government clearly recognizes the need to tap new financing sources. The government is therefore exploring the possibility of introducing compulsory social health insurance as an additional financing source, as well as mechanisms that will lead to an increased efficiency of resource use.

In 1999, the Ministry of Health submitted three documents to the government on this topic,[14] and an additional document was prepared by the State Health Agency.[15] In 2000, a new document was prepared by the Ministry of Health, entitled "Concept of the introduction of medical insurance in the Republic of Armenia", attempting to integrate the suggestions made in the earlier documents and proposals, for the purpose of defining the organizational, financial and legislative mechanisms to be applied to the introduction of health insurance. This document was discussed within the government in August 2000, and formed the basis for subsequent draft health insurance legislation. The main principles contained in this document are outlined below:

- The system of compulsory medical insurance (CMI) will be based on the main values of WHO, including accessibility of services, equity and social solidarity, efficiency in the use of resources, and elimination of the widespread underground economy.
- Medical insurance will be compulsory, and will be implemented following the adoption of legislation entitled "On health insurance of the Republic of Armenia".
- In recognition of the economic and organizational problems that can hinder the adoption of a compulsory medical insurance system (widespread unemployment, the present of a significant underground economy, the additional tax burden that social insurance entails, etc.), this will be implemented gradually, in a step-by-step fashion.
- Preconditions for the establishment of the medical insurance system include: a political decision that this is the only realistic mechanism for the future financing of health care; rationalization of the health care system which currently is characterized by widespread inefficiencies; revision of the Basic Benefit Package (BBP); specification of national health programmes to be covered by the state budget and establishment of a co-payment structure for

[14] These were: "Conceptual approaches of the Ministry of Health to the introduction of compulsory health insurance in the Republic of Armenia", "The introduction model of compulsory health insurance in Armenia", and "Proposal on the introduction of compulsory health insurance in Armenia".
[15] This was entitled "Conceptual approaches to the introduction of health insurance".

those programmes of secondary importance; and specification of premium rates and conditions for the systems' financial stability.

- Insurance coverage and premium rates and collection should be differentiated according to principal population groups (working population, self-employed, dependents, socially vulnerable groups, etc.) with appropriate arrangements for all non-paying groups.
- Arrangements should be made to ensure timely and complete collection of premiums, and hence financial stability of the system.
- The design of the medical insurance system must estimate and clearly define costs of services for target groups based on realistic prices and utilization rates, with benefits initially defined to include primary care diagnostic and therapeutic services, specialist ambulatory-polyclinic diagnostic and therapeutic services, and ambulance services.
- The compulsory medical insurance (CMI) system will be implemented by the CMI Fund which will be established by the government for that purpose.
- New health insurance legislation which will lay the foundations of the medical insurance system must clearly address certain issues such as the respective definitions and responsibilities of voluntary and compulsory insurance; delineation of rights and responsibilities of different population groups; regulation of programmes and volumes of care to be provided under the CMI system, etc.
- New health insurance legislation must undertake to encourage the development of voluntary health insurance which at the present time is not clearly understood by the population. In addition, other pieces of legislation (such as the "Law on income tax" and the "Law on profit tax") should be revised so as to establish tax incentives for the promotion of voluntary health insurance.

By the fall of 2001, a draft health insurance law based on this concept had been prepared, aimed at providing the organizational and legal basis for the establishment of a system of medical insurance. The law provides for the introduction of compulsory insurance for the entire population, with voluntary insurance available on a group and individual basis for coverage of benefits not included under the compulsory insurance program. Compulsory insurance is to be provided by the Compulsory Medical Insurance Fund, which is to contract with providers for health care services specified in the insurance program. State and local governments will undertake payment of premium contributions on behalf of the non-working population (unemployed, pensioners, children, etc.) The legislation also provides for freedom of choice of provider on the part of the insured.

Health care benefits and rationing

According to Decree No. 174 of March 1998, the government is responsible for the provision of health services covering the majority of the population. In actual fact, only vulnerable groups have coverage, thus underlining the government's inability to live up to its commitment to provide universal coverage.

Since 1997, when private out-of-pocket payments became a main source of financing for the health care system, it was the government's intention to establish a state health target programme consisting of certain services to be provided free-of-charge to targeted segments of the population. This resulted in the Basic Benefits Package (BBP) which was developed for the first time in 1998 with World Bank assistance. The BBP consists of a publicly-funded package of services that includes a list of services covered and specifies the population groups that are entitled to its services. The BBP is periodically reviewed and services of population groups may be added or removed.

The most recent BBP, specified in 2000, includes the following services:

- Hygiene and anti-epidemic control
- Primary health care
- Medical care for children
- Obstetrics–gynaecology
- Medical care for social vulnerable groups
- Communicable disease control
- Noncommunicable disease control
- Emergency health care programme

Health care services such as cosmetic surgery intervention, transplantation of organs, transplantation of artificial organs and tissues, utilization of precious metals and metal-ceramics in dentistry are not covered by the state.

Socially vulnerable groups are defined to include the following: disabled persons (according to three degrees of disability); war veterans; children under the age of 18 with one parent; orphans under the age of 18; disabled children under the age of 16; families with four or more children under the age of 18; families of war victims; prisoners; children of disabled parents; participants in Chernobyl disaster elimination activities; catastrophy rescuers.

All patients falling into a priority group are to receive an all but comprehensive package of free outpatient and inpatient services. In practice, however, in many cases the patient ends up paying partly out-of-pocket. Hospitals do not normally provide food and even vulnerable inpatients continue to be responsible

for providing their own meals. Moreover, whereas pharmaceuticals are, in principle, free to them as inpatients while as outpatients they are expected to pay only a token fee for drugs, the majority of covered inpatients pay out-of-pocket for most drugs. The only restrictions placed on the medical care that a qualifying individual can receive are that the treatment is clinically indicated and falls into one of the 43 categories of interventions defined by the Ministry of Health. These categories were designated primarily to facilitate the payment of hospitals and not to restrict the benefits available to the population covered. However, they tend to exclude the possibility of interventions like cosmetic surgery or complementary therapies unless a pressing clinical need can be demonstrated.

All other residents in Armenia must pay out-of-pocket, in full, for all care and pharmaceuticals[16] at the point of use unless they are suffering from an infectious disease, require emergency treatment or are covered by the Ministry of Social Affairs scheme for the socially disadvantaged. Out-of-pocket payments must also be made for dental work, sight tests, etc.

This represents a radical reduction in the benefits covered and stems from the well-supported belief that a small part of the population has considerable sums of disposable income but operates almost exclusively within the boundaries of the informal economy. The "unofficial" nature of most economic transactions leaves the country with a tax base that does not reflect the level of economic activity and makes it impossible to levy sufficient taxes to fund health services adequately. Under these circumstances the Ministry of Health has had to accept and legalize the introduction of user fees which bring revenue into the health system which would not otherwise be available for public services. If the situation changes and it becomes possible to generate sufficient taxation to fund more comprehensive health services the Ministry of Health will extend the benefits package.

Table 2. Percentage of main sources of finance

Source of finance		1999/2000
Public		
	Taxes	25%
	Statutory insurance	–
Private		
	Out-of-pocket	60%
	Private insurance	–
Other		
	External sources	15%

Source: Ministry of Health of Armenia.

[16] The cost of basic pharmaceuticals is often included in the case payment for inpatient care. Additional drugs and outpatient prescriptions are paid for separately.

Complementary sources of finance

It is estimated that total annual health care expenditures are roughly US $155 million (1999) of which 25% are covered by the state, 15% by humanitarian aid, and 60% out-of-pocket. However these figures may well represent a large underestimate of the private, out-of-pocket contribution whose real magnitude is unknown.

Out-of-pocket payments

Rather than co-insurance or co-payment systems, the Ministry of Health has opted to introduce a system whereby patients pay the full cost of treatment out-of-pocket directly to medical providers. This was also dictated by the cuts in public funding of health system. As of March 1996 hospitals have started to set prices for all interventions and publish a schedule of charges that is monitored by the Ministry of Health. A ceiling is placed on the percentage profit that hospitals can make but, with the exception of that restriction, pricing is at the discretion of the hospital. Patients are then free to opt to buy health care from whichever institution they choose and can afford.

Hospitals are expected to charge a per diem rate for hotel services (bed, bedding, water, shower, toilet services, and others, excluding food, which patients must normally provide) and to levy case payments which include a minimum package of examinations, X-rays and pharmaceuticals. Additional services may be charged on a fee-for-service basis and patients pay for all but the most basic drugs out-of-pocket.

Outpatient services are charged on a fee-per-visit basis with additional charges levied for additional examinations or procedures. All drugs are purchased by patients out-of-pocket.

Medical aids and prostheses are paid for by patients unless they fall into one of the categories covered.

These changes were expected to put an end to under-the-table payments which were previously endemic since patients either pay an agreed tariff or are assured of their explicit right to free health care as a member of a special category. While it was never possible to calculate the total worth of under-the-table payments, anecdotal evidence suggests that they were substantial and may have been on a par with the sums to be charged by hospitals under the new system.

Under-the-table payments

Under-the-table payments were a common feature of the Soviet system. It was hoped that the introduction of patient fees in the mid-1990s would work to diminish the scope of under-the-table payments, however there is evidence that these continue to be widespread. A key factor which has actually worked to increase them has involved the very low prices paid by the state for state-funded services. As these prices are too low to cover costs of services provided, providers are forced to request payments from patients even in those cases where a patient falls within a vulnerable group and is entitled to free health care. It has been estimated with World Bank assistance that official payments for medical care amount to 10–12% of the total income of medical facilities, whereas total private, out-of-pocket financial flows to the hospital sector are 3.5–4 times greater than the state budget allocation. This procedure also opens opportunities for widespread tax evasion. The result is that the main part of the system's revenues evades official structures, thus making impossible the improvement of the overall health care financing system.

Voluntary health insurance

Voluntary health insurance makes virtually no contribution to the financing of health services at the present time although there are some private companies which provide voluntary insurance health programmes, and there is clearly scope for insurance schemes to develop. Only 20% of about twenty officially registered and licensed private insurance companies are engaged in voluntary health insurance. Reasons for this include the following:

- The majority of the population does not trust the notion of medical care insurance as a result of the fact that in the last several years payment for services involves unofficial out-of-pocket payments to a very large extent.
- Current tax legislation (especially the "Law on Income Tax") does not provide incentives for employers to insure their workers.
- The very low income levels of the majority of the population induce a preference for spending on health care as needs arise rather than payments for insurance against future risks.
- The majority of the population is unclear about the meaning and advantages of health insurance.

A document produced by the Ministry of Health in 2000 entitled "Concept of medical insurance in the Republic of Armenia"[17] suggests that the existing

[17] This document is discussed in more detail in the section on *Main system of finance and coverage* where its recommendations for the development of a system of compulsory medical insurance are discussed.

legislation on health insurance is insufficient to encourage the development of voluntary health insurance. It recommends that new health insurance legislation should specify the respective responsibilities of compulsory and voluntary health insurance, and develop mechanisms that will help promote the latter. In addition, it suggests that existing pieces of legislation (the "Law on Income Tax" and the "Law on Profit Tax") should be revised so as to establish the needed clarity and introduce tax incentives for the promotion of voluntary health insurance. Further measures that can be undertaken include encouragement of cooperation between medical facilities and insurance companies, as well as undertaking a broad information campaign aiming to inform the public on the significance and advantages of voluntary health insurance.

External sources of funding

Armenia has experienced both a major earthquake and civil strife in recent years and was the recipient of considerable international humanitarian assistance. Sources have included multilateral donors (United Nations agencies, the European Union, the World Bank) as well as a number of bilateral donors. This has now tailed off and aid is largely confined to social care (for the elderly and refugees) and the provision of certain essential drugs. The Armenian diaspora continues to make charitable donations and expatriate Armenians working abroad (often in Russia) send money to their families to help cover the costs of health care.

At the present time, there are several voluntary agencies in Armenia (see a partial listing in the section on *Voluntary organizations*) though their contribution to financing health care still remains rather small.

In 1998 the first Basic Benefit Package (BBP) was introduced with the support from a World Bank project, entitled "Improvement of health financial management and development of primary health care in Armenia." The loan is for an amount of US $10 000. The project consists of two parts: (a) Primary health care development, including a training sub-project, development of 70 primary health care facilities and guidelines for family physicians; and (b) improvement of financial mechanisms of the health care system, including establishment of the State Health Agency, development of the BBP, improvement of providers' payment mechanisms and improvement of financial information.

[18] It may be noted that actual amounts of spending usually differ from planned amounts. For example, in 1999 budget expenditure amounted to 248 310 million drams resulting in a budget deficit of 56 618 million drams.

Table 3. Planned health care expenditure as % of the state budget

Year	State budget		Health care share		Planned
	Dram (millions)	US $ millions	Dram (millions)	US $ millions	%
1995	101 164	249	12 629	31	12.5
1996	98 092	237	13 161	32	13.4
1997	117 938	240	12 343	25	10.5
1998	160 784	322	17 651	35	11.0
1999	191 692	358	20 531	38	10.7

Source: Ministry of Health and Ministry of Finance statistics.

Health care expenditure

Measuring trends in health care expenditure in Armenia is problematic because of the shift from the Soviet system to national independence and the enormous disruption of the economy. However, the percentage of GDP devoted to health care in the early 1990s was close to the average for the newly independent states. The table below shows the planned amounts of state budget funds allocated to health care and the percentage of the state budget this represents. The health care share in the state budget represents the total amount of state spending on health care.[18]

According to Government Decree No. 199 of 3 April 1999, the total allocation for health is 20 531 million drams, out of which 4 151 million drams (about 20%) was to be disbursed through the Ministry of Health, and 16 million (about 80%) through the State Health Agency.

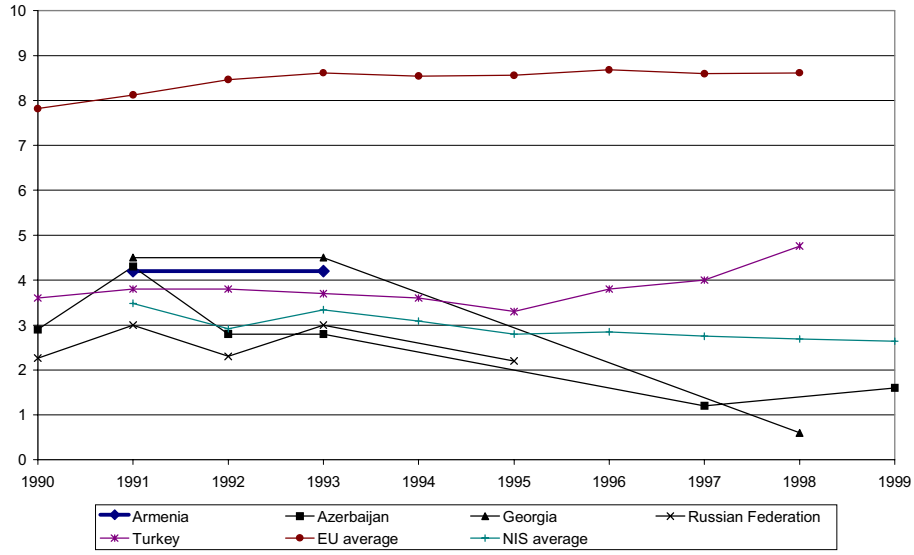
The state allocation for health shown in Table 3 constitutes the total amount of public funds planned each year to be allocated to health care in Armenia. In the period 1995–1999 the health care share of the state budget has shown a slightly decreasing trend, but at over 10% in 1999 this share appears quite high relative to the rest of Europe. This actually reflects the collapse of the Armenian economy, and the shrinking of GDP and the state budget rather than any shift of additional resources into the health sector. Adjusted figures demonstrate that health care has in fact been greatly under-funded in comparison with other European countries and the budget, however it is estimated, has been greatly insufficient to meet health service costs.

It may be noted too that planned allocations are not usually met; for example, in the year 2000 (not shown in the table) the State Health Agency actually met 48.3% and the Ministry of Health 64.6% of their planned allocations for health care, resulting in the failure of the government to meet its obligations in financing the Basic Benefits Package, thus increasing the relative share of private, out-of-pocket payments.

The health care share of the state budget represents approximately 25% of total health care expenditures, with a further 15% contributed by humanitarian aid, and 60% by private, out-of-pocket payments. In 1990, the state health budget amounted to 2.7% of GDP; in 1997 this dropped to 1.3% and 1999 increased to a mere 1.7%.

Fig. 3, showing health care expenditure as a share of GDP in Armenia and selected countries, reveals that in the period 1991–1993 (the only years for which Armenian data in the WHO health for all database are available), slightly over 4% of Armenian GDP was allocated to health care. This was above the

Fig. 3. Trends in health care expenditure as a share of GDP (%) in Armenia and selected countries, 1990–1999

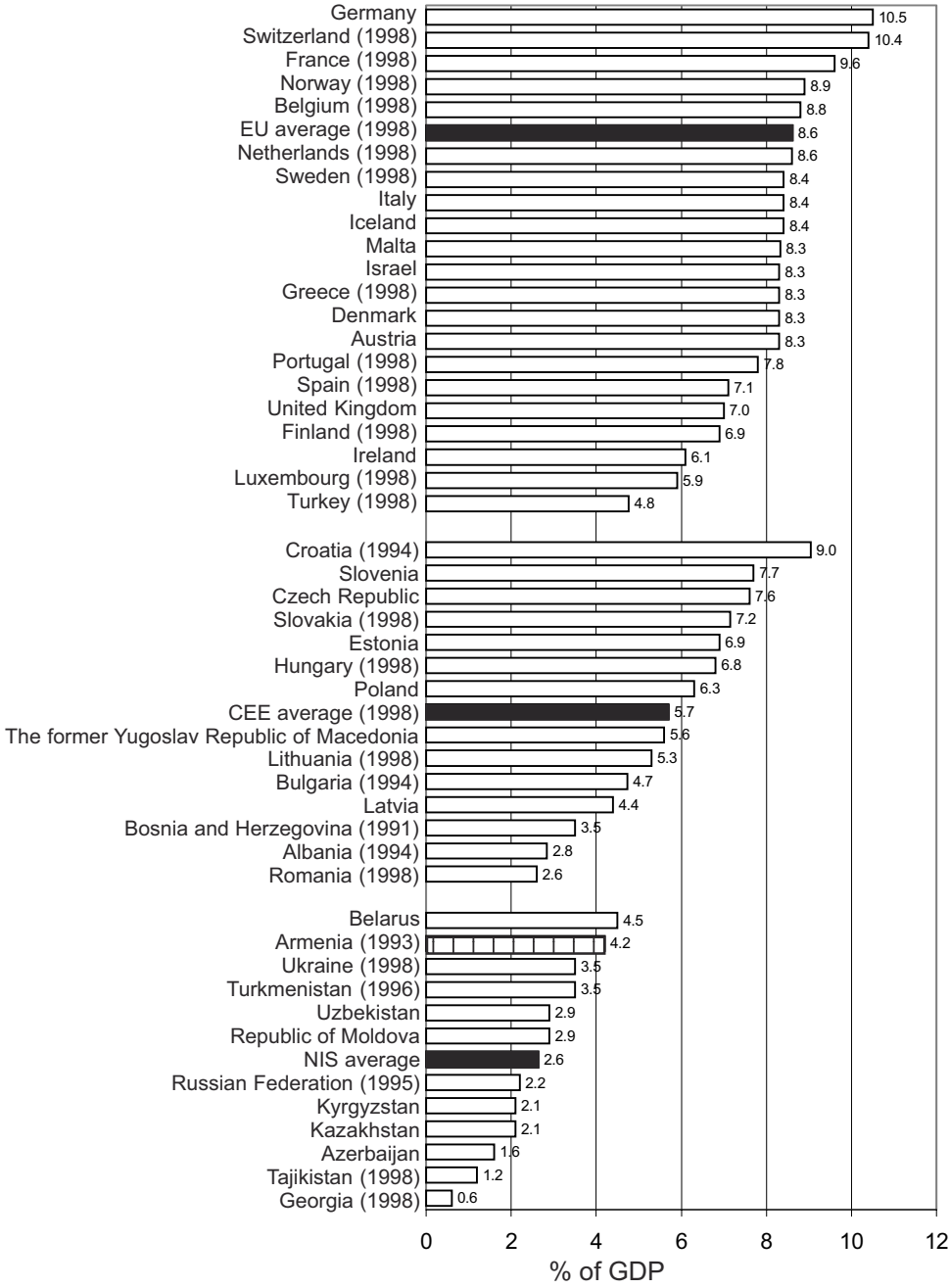


Source: WHO Regional Office for Europe health for all database.

NIS average and the corresponding figures for Azerbaijan, the Russian Federation and Turkey, through significantly below the EU average. Fig.4 similarly shows the health spending to GDP ratios for Armenia and other countries in the European Region.

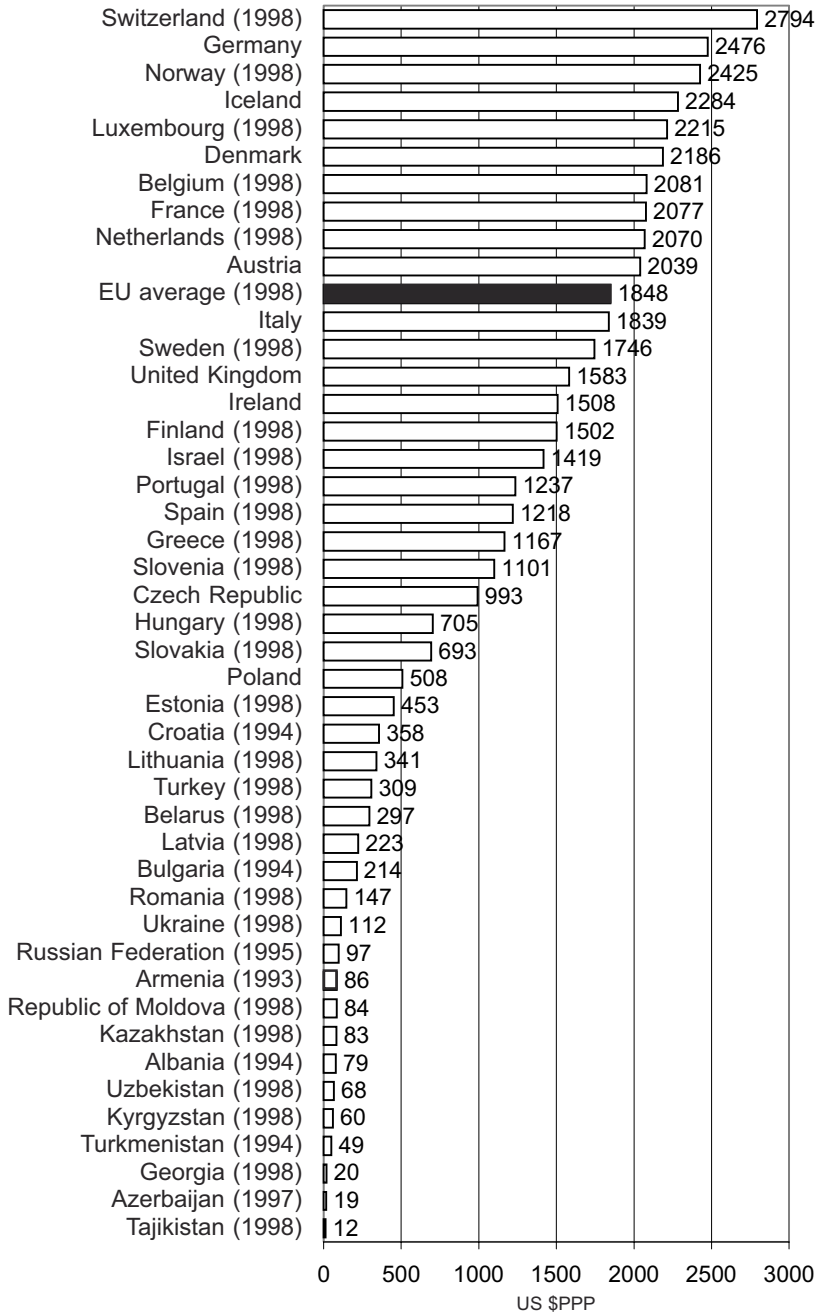
It must be borne in mind however, that these figures are highly unreliable due to the great difficulty involved in making an accurate estimate of private, out-of-pocket payments, which are included in the estimate of the health care expenditure share in GDP. If it is considered that in 1999 the state budget share

Fig. 4. Total expenditure on health as a % of GDP in the WHO European Region, 1999 (or latest available year)



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

Fig. 5. Health care expenditure in US $PPP per capita in the WHO European Region, 1999 (or latest available year)



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

in health care spending, amounting to 1.7% of GDP, was 25% of total health care spending, it follows that the share of total health care expenditure in GDP was 6.8%, approaching the levels found in the European Union. However it is not possible to know what degree of confidence may be safely placed in these calculations.

Fig. 5 shows per capita health care expenditure in US $PPP in the WHO European Region. Only very rough comparisons can be made between Armenia and other countries, partly because the data do not refer to the same time period for all countries, but also for the reasons noted above regarding the difficulties involved in accurately estimating total health care expenditures. However, even allowing for these possible sources of error, it can be seen that health care spending in Armenia in real terms is extremely low in comparison with many other countries in the WHO European Region.

The rapid transition of Armenian society also makes it difficult to comment on the structure of health care expenditure. While inpatient care has traditionally dominated spending this should change as the health reforms take effect. Capital investment in both buildings and equipment has been confined to those areas receiving humanitarian assistance following the earthquake and is not likely to form a significant feature of expenditure in the immediate future.

Health care delivery system

Primary health care and public health services

Primary health care is typically delivered either through regional polyclinics or rural health posts/feldsher stations with one physician per 1200–2000 population and one paediatrician to 700–800 children. Services are still organized along Soviet lines although provision should change radically as the reforms take effect.

There are 500 medical posts or feldsher stations, one in every village, offering a nurse-led service that includes: basic care of children and adults, antenatal care, developmental checks for infants, prescribing, first aid, 24-hour emergency cover, home visits and preventive services such as immunization and simple health education. A cluster of villages may have a shared ambulatory centre with a general or family doctor able to offer a wider range of care. All cases beyond the scope of the rural health care network are referred to regional polyclinics or directly to hospital. It is expected that many of the smaller health posts will close down as the new payment mechanism is implemented and they have to cover the cost of premises, electricity, medical supplies, etc. However, the Ministry of Health calculates that service will be sustainable in a community of 200 where there is an average of 4–5 visits per person per year. Isolated rural communities may also choose to subsidize health posts from local taxation if they wish to secure access to primary care.

There are also 37 regional polyclinics, inherited from the previous system of district administrations. These were attached to regional hospitals but now have autonomous status. Most employ primary health care staff that includes a paediatrician, a general physician and an obstetrician/gynaecologist as well as nurses and midwives. They typically offer: general ambulatory care for the adult and elderly population; antenatal, obstetric and perinatal services; paediatrics; basic investigations and a full range of prescribing; minor surgery; certification of sickness; rehabilitation; 24-hour emergency cover; home visits,

immunization, health education, etc. Larger urban areas, in particular Yerevan, have specialist polyclinics for paediatrics and women's services (obstetrics and gynaecology) in addition to "general" polyclinics. These larger centres may also offer secondary health care with clinics devoted to the various medical and surgical specialties (i.e. cardiology, gastroenterology, orthopaedics, etc.).

By separating out polyclinics from hospitals, the reforms hope to end the blurring between primary and secondary care. The conferring of autonomous status on polyclinics has effectively ended the perverse incentive to admit patients which existed under the previous funding system.[19] There are now incentives for polyclinics to keep patients in the primary setting and so to address health care need more cost-effectively. Despite the Ministry of Health's desire to see a shift of resources into primary care, it recognizes that there is an over-provision of polyclinics and some may be expected to close down under the new market conditions.

It is hoped that in the place of the health posts and polyclinics which fail, independent general practitioners/family doctors will emerge dealing with all the primary health care needs of their particular group of patients. The Ministry of Health has drawn up a primary care plan which, when approved by the parliament and passed into law, will create the necessary framework for this transition. The Ministry of Health is also planning to provide retraining for some doctors wishing to take on this new role.

The reforms have already guaranteed patients' choice of physician and it is hoped that, as the general practice system evolves, this choice will become increasingly meaningful. The right to choose a doctor should also enhance quality of care as doctors' pay will now reflect the volume of patients that they see and they may, therefore, be expected to invest more effort in ensuring patient satisfaction.

While patient choice is being extended in some areas, rights of access to any level of the health system[20] are to be curtailed. Until 5 March 1996, patients could refer themselves directly to the secondary setting. This was common practice and led to inappropriate and overly expensive medical care being used in place of primary provision. Patients wishing to see a specialist doctor must now have a letter of referral from a primary physician in all except emergency cases. The introduction of the gatekeeping role is paired with a directive requiring all specialists to return patients to the primary sector for follow up care. Payment mechanisms will ensure compliance in the treatment of the population covered by the state.

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[19] When polyclinic and hospital budgets were unified additional funding could be attracted by providing more inpatient care, whether it was necessary or not.
[20] Which was guaranteed under the soviet system.

A 5000-household survey was conducted in early 1996 with World Bank support in different districts of Armenia. Based on the results of the survey, patients are somehow satisfied with the medical services provided in all levels of medical care, though they mentioned that there are informal payments in the whole system. Based on surveys conducted by different international NGOs, the rating of primary medical care on average is 3.5 based on the 1–5 scale.

There is a tendency to self-refer to hospital specialists, which is in part a reflection of cultural norms in the Soviet era, and also indicates a lack of confidence in the quality of care provided at primary level. The physical conditions in health posts and polyclinics are often poor and staff have had little incentive to treat patients with respect. It is hoped that the reform process and the primary health care plan will link patient numbers and physician pay, encourage the movement of resources into the primary health care sector, and promote the general practice model, all of which will enhance the standards of the sector and lead to greater patient satisfaction.

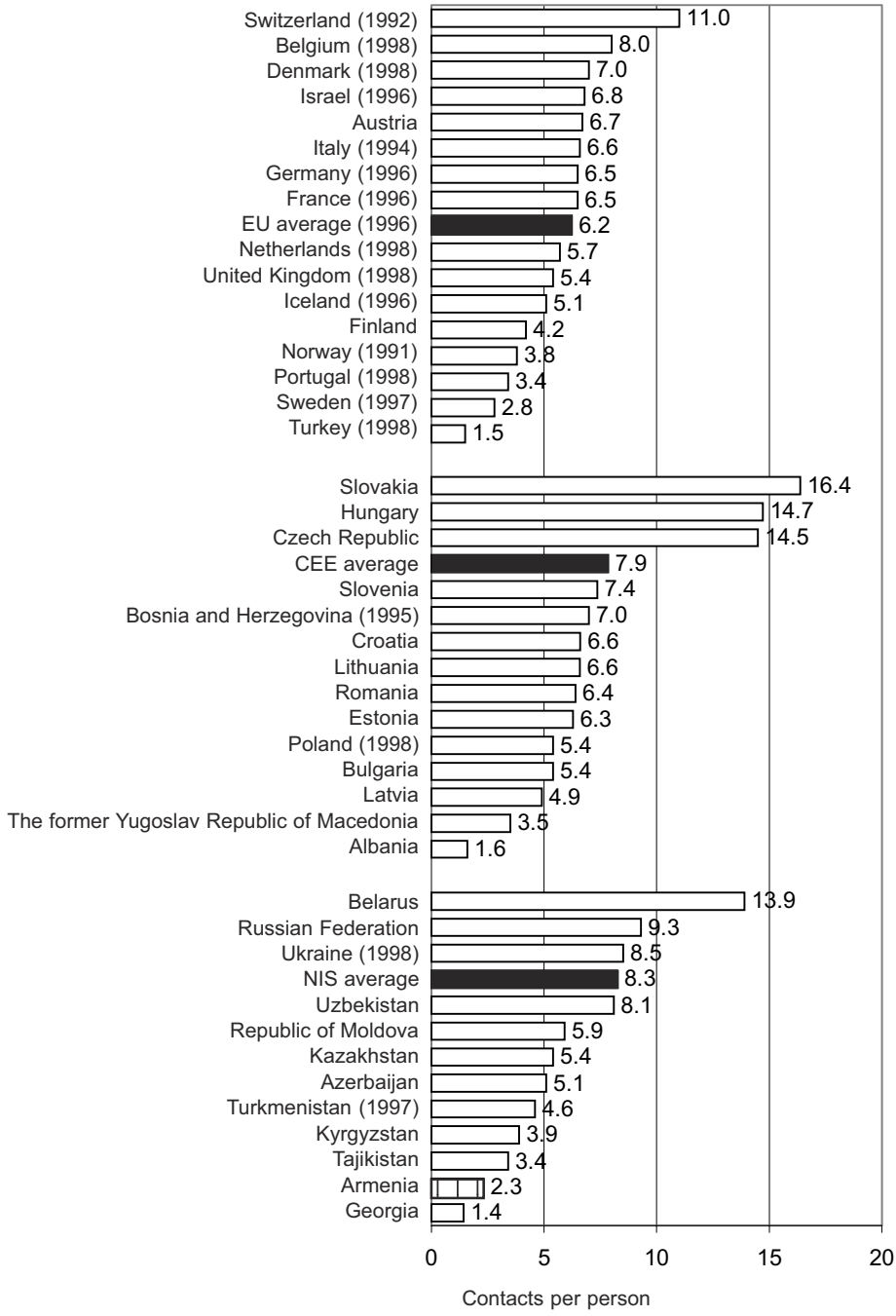
The government has identified reorientation of the system toward primary health care as a crucial component of health care reform. In order to promote preventive and curative care, and for the purposes of better management, projects for control of intestinal diseases, acute respiratory infections and safe motherhood have been integrated in a primary health care reform project. In 1996, UNICEF provided assistance to a Ministry of Health project to train 180 nurses and physicians in the areas of preventive and curative care and child development. A World Bank project, initiated in 1998, consists in part of primary health care development, including a training sub-project, development of 70 primary care facilities and guidelines for family doctors.

A fundamental problem in primary care concerns the issue of access, which has become excessively difficult for a large segment of the population due to the inability to pay out-of-pocket for health care services. Fig. 6 shows the number of outpatient contacts per person per year in countries of the WHO European Region, where it can be seen that Armenia's 2.3 contacts in 1999 are very much on the low end of the range.

Public health services

Basic public health care, health education and health promotion are core components of primary health care. In Armenia, the sense of individual responsibility for one's health is low. There is widespread misunderstanding and/or confusion regarding public health services. The following issues in Armenia prevent effective delivery of hygiene/public health services:

Fig. 6. Outpatient contacts per person in the WHO European Region, 1999 (or latest available year)



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

- a continued, almost exclusive emphasis on hygiene surveillance
- poor sanitary-hygiene infrastructure
- inadequate attention to health promotion and health education
- shortage of appropriately-trained public health professionals
- fragmented uncoordinated programmes in health education.

The public health sphere has experienced less change than other parts of the health sector. The network of 37 san-epid stations and one republican unit, established under the Soviet system of district administrations, is still in place. In 1999–2000, one san-epid station in each *marz* (there are 2–4 former districts in each *marz*) was granted the status of the *marz* san-epid station and its chief doctor was named the head sanitary doctor of the *marz*. The stations are still managed by, and report to the central state. They are responsible for the collection of epidemiological data on both infectious and noncommunicable diseases and for the monitoring of sanitation systems and air and water quality. The stations provide the first-line response in cases of environmental incidents or the outbreak of infectious diseases. The whole network is ultimately accountable to the Republican Vice Minister heading the Department of Epidemiology who also doubles as the state's Chief Sanitary Doctor. The Ministry of Health ensures that statistics are collated at a national level in order to inform policy making and health service planning and to allow all change to be monitored.

Health promotion was not particularly developed during the Soviet era. However, what provision there was collapsed during the post-independence crises and left the country with no established health promotion or education programmes. The National Institute of Health, which has a major input into policy development, is keen to redress this imbalance and has proposed that health promotion be included in all new training programmes for primary health care specialists. If health promotion can win recognition as an official component of primary health care it can be brought within the health service payment system and its long-term future guaranteed. Some initial steps have been taken to provide health promotion training by the College of Health Sciences of the American University of Armenia in Yerevan through its public health specialists training programme.

Preventive services are delivered via a number of different routes. Immunization programmes, which have a long tradition of effective action (see Fig. 7), are normally delivered through primary health care clinics but supervised by the san-epid network which uses census data to ensure population coverage. Most Armenian children receive the core vaccinations specified by Armenia's National Immunization Programme (NIP), but many of them receive

Fig. 7. Levels of immunization for measles in the WHO European Region, 1999 (or latest available year)

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

Armenia

these at an older age than that specified by the NIP. Results of a survey conducted in 1999 (Evaluation of the National Immunization Programme of the Republic of Armenia) show that despite hardships of the 1990s, the NIP has provided a level of coverage comparable to or better than that achieved in other countries of the former Soviet Union. Family planning services are offered either by the mainstream health post/polyclinic network or by specialist women's polyclinics that concentrate on obstetrics, gynaecology, etc. Similarly, antenatal care and screening may be provided in either the conventional setting or by these women's services.

As the reforms take effect both health promotion and preventive medicine may be expected to grow in importance. Certainly, the Ministry of Health plans to address funding issues to ensure that there are incentives for practitioners to implement relevant measures. Environmental and infectious disease control functions are likely to remain under central supervision, but as the new generation of public health specialists complete their training they may be expected to strengthen the capacity of the regions to deal with increased responsibility at the local level.

Secondary and tertiary care

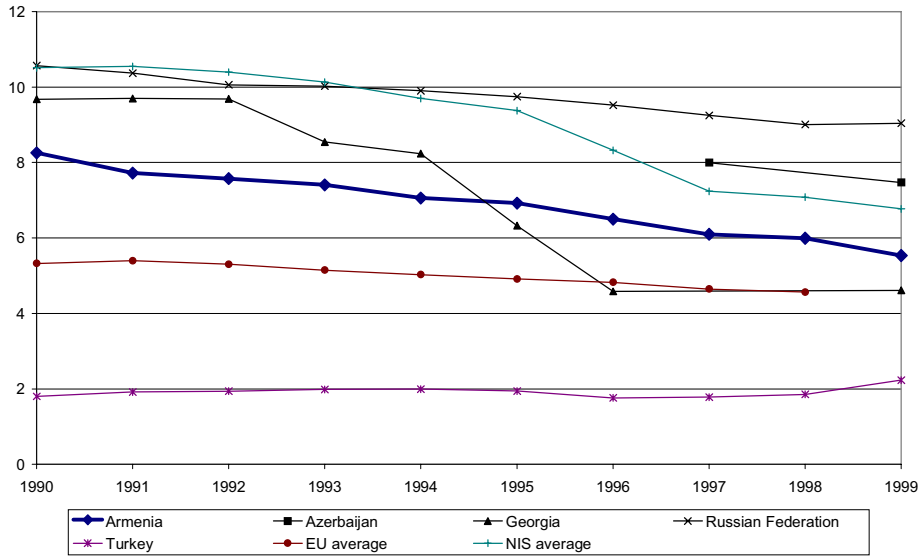
Secondary health care is provided by the 37 regional hospitals and some of larger polyclinics which offer specialized ambulatory services, while tertiary care is largely confined to the republican hospitals and "single specialty" institutes in Yerevan. In addition, there are six paediatric and maternity hospitals in the capital. The bulk of hospital facilities is state-owned. Currently there are three private hospitals and one partially private one. In addition, there is a private diagnostic centre in Yerevan which carries out 80% of its work in the private sector.

Distribution of facilities is based on historical provision which used geographic and demographic norms to determine the location of health care institutions. Until independence, a comprehensive range of specialities was offered in each hospital and the republican system carried out highly sophisticated interventions. The resource constraints following independence have made this level of provision and the tradition of guaranteed access to all levels of care untenable. The Ministry of Health has now established criteria which will clearly delineate the boundary between primary, secondary and tertiary services and is to use licensing to restrict the level of care provided in any given health institution.

These reforms have yet to be implemented however, and existing hospital provision continues at Soviet levels. Bed numbers are well in excess of estimated

levels of need and have contributed to draining resources from both primary health care and preventive medicine. As can be seen in Fig. 8, acute hospital beds in Armenia are above the average for the European Union, though below the average for the NIS. Acute hospital bed numbers show a clear downward

Fig. 8. Hospital beds in acute hospitals per 1000 population in Armenia and selected European countries, 1990–1999



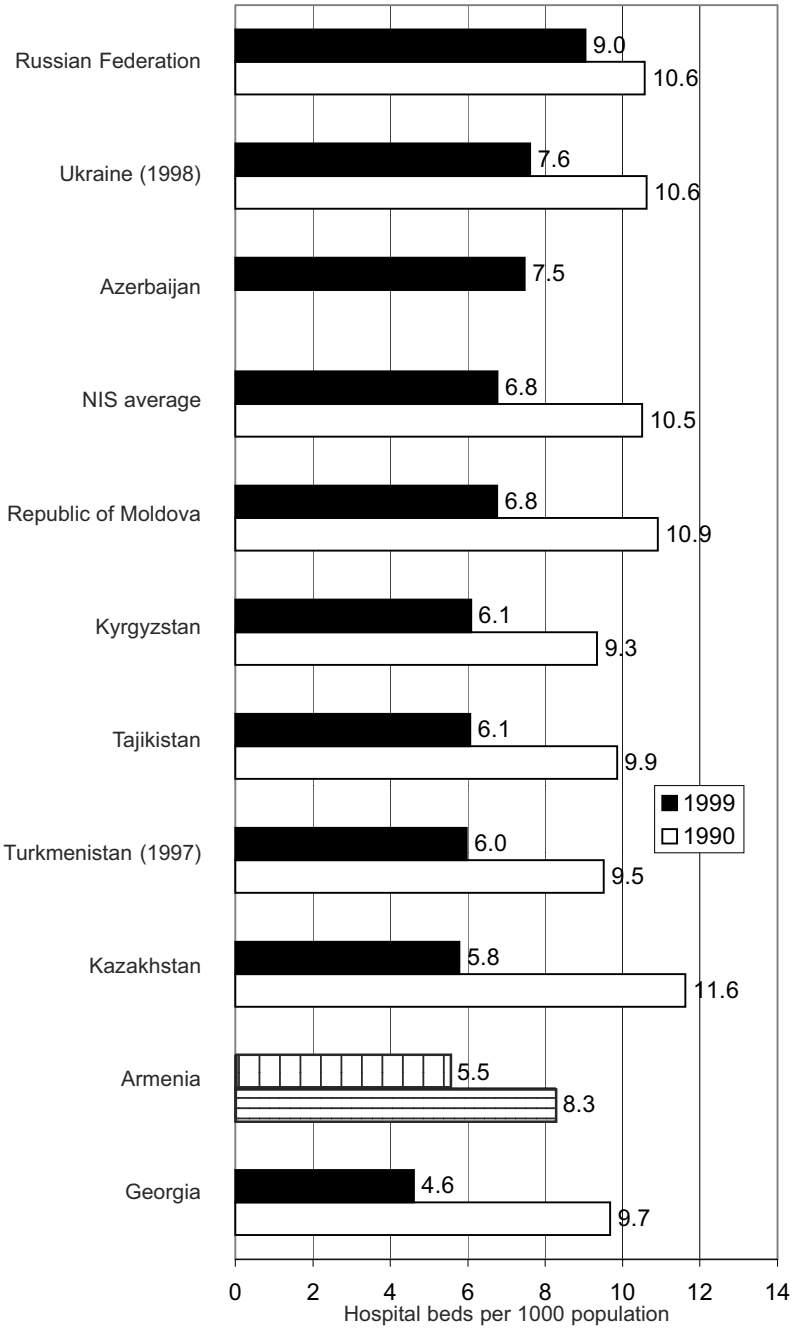
Source: WHO Regional Office for Europe health for all database.

trend, as can be seen also in Fig. 9: from 8.3 per 1000 population in 1990 they dropped to 5.5 in 1999, representing a 34% drop.

The Soviet funding system, which linked finances with bed numbers, perpetuated the tendency to over-admit and encouraged long average lengths of stay. The disruption of the health system, the continuing economic difficulties it faces, and the newness of the reform measures make it difficult to obtain a clear picture of the current state of the secondary and tertiary sectors. However, as Table 4 indicates,[21] occupancy rates have fallen as low as 33.4% in 1999, compared to about 65% in 1990 and 70–80% in the 1980s. This decline in occupancy rates is especially remarkable since hospital beds have declined by nearly one third over the same period. The apparent excess bed capacity is in fact due to poor access as health care became unaffordable for a significant

[21] The figures in Table 4 are not directly comparable with those in Fig. 8, Fig. 9 and Table 5: the former refer to all-hospital data, whereas the latter refer to acute-hospital data.

Fig. 9. Hospital beds in acute hospitals per 1000 population in the newly independent states, 1990 and 1999 (or latest available year)



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

portion of the population. Not only are all segments of the population not identified as vulnerable groups obliged to pay out-of-pocket for all secondary care services but, in addition, state funds are insufficient to cover the Basic Benefits Package. This is substantiated by the sharp drop in admissions, which

Table 4. Inpatient utilization and performance, 1990–1999

Inpatient	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Hospital beds per 1000 population	9.09	8.53	8.37	8.21	7.77	7.64	7.13	6.75	6.65	6.20
Admissions per 100 population	13.95	12.07	9.61	8.17	7.60	7.48	7.54	6.65	6.20	5.80
Average length of stay in days	15.60	15.45	15.58	15.88	16.32	15.22	14.56	13.86	12.80	12.80
Occupancy rate (%)	65.56	59.52	48.63	42.35	42.72	40.14	40.41	38.6	33.70	33.40

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

fell from nearly 14 per 100 population in 1990 to under 6 in 1999. The World Bank has recommended that a large proportion of hospitals be closed down. However the Ministry of Health argues that low hospital occupancy rates are not a reflection of real excess capacity, but rather unaffordability.

Table 5 permits a comparison of Armenia with most of the countries of the WHO European Region with respect to the same indicators.

The reform process has introduced a move away from the integrated model and hospitals now have autonomous, self-financing status although remaining publicly owned. They are still obliged to offer health care[22] to the population covered by the state's minimum package under contract (at prices fixed below cost) but will have to generate sufficient income from out-of-pocket payments to cover their costs. This is expected to lead to the closure of many provider units and therefore, to the rationalization of services. The market will be a key mechanism which determines the geographic distribution of facilities together with "optimization plans" under development by regional governments, which attempt to use criteria such as beds per population as guidelines for reduction of hospital bed capacity.[23]

Until recently, there was no effective 'gatekeeper' mechanism and access to secondary care was "on demand" with patients referring themselves to specialist physicians. The Ministry of Health has now legislated to ensure that only patients referred by a general practitioner can consult a specialist and to

[22] Falling into any of the 43 recognized categories of care.
[23] As noted earlier, there is an inconsistency in these policy dimensions as the first implies a laissez-faire approach while the second is based on direct government intervention.

Table 5. Inpatient utilization and performance in acute hospitals in the WHO European Region, 1999 or latest available year

Country	Hospital beds per 1000 population	Admissions per 100 population	Average length of stay in days	Occupancy rate (%)
Western Europe				
Austria	6.4[a]	25.8[a]	6.8[a]	75.4[a]
Belgium	5.2[b]	18.9[c]	8.8[b]	80.9[c]
Denmark	3.4[a]	18.7	5.7	78.3[a]
Finland	2.5	19.7	4.5	74.0[d]
France	4.3[a]	20.3[d]	5.6[a]	75.7[a]
Germany	7.0[a]	19.6[b]	11.0[a]	76.6[b]
Greece	3.9[g]	–	–	–
Iceland	3.8[d]	18.1[d]	6.8[d]	–
Ireland	3.2[a]	14.6[a]	6.8[a]	84.3[a]
Israel	2.3	17.9	4.3	94.0
Italy	4.5[a]	17.2[a]	7.1[a]	74.1[a]
Luxembourg	5.5[a]	18.4[e]	9.8[c]	74.3[e]
Malta	3.8	–	4.2	79.3
Netherlands	3.4[a]	9.2[a]	8.3[a]	61.3[a]
Norway	3.3[a]	14.7[c]	6.5[c]	81.1[c]
Portugal	3.1[a]	11.9[a]	7.3[a]	75.5[a]
Spain	3.2[c]	11.2[c]	8.0[c]	77.3[c]
Sweden	2.5	15.6[a]	5.1[c]	77.5[c]
Switzerland	4.0[a]	16.4[a]	10.0[a]	84.0[a]
Turkey	2.2	7.3	5.4	57.8
United Kingdom	2.4[a]	21.4[c]	5.0[c]	80.8[a]
CCEE				
Albania	2.8[a]	–	–	–
Bosnia and Herzegovina	3.3[a]	7.2[a]	9.8[a]	62.8[d]
Bulgaria	7.6[c]	14.8[c]	10.7[c]	64.1[c]
Croatia	3.9	13.2	9.4	87.2
Czech Republic	6.3	18.2	8.7	67.7
Estonia	5.6	18.4	8.0	69.3
Hungary	5.7	21.8	7.0	73.5
Latvia	6.3	20.0	–	–
Lithuania	6.4	20.6	9.1	78.8
Poland	–	–	–	–
Romania	–	–	–	–
Slovakia	7.0	18.4	9.6	69.8
Slovenia	4.6	16.0	7.6	73.2
The former Yugoslav Republic of Macedonia	3.4	8.8	8.8	63.0
NIS				
Armenia	5.5	5.6	10.4	29.8
Azerbaijan	7.5	4.7	14.9	30.0
Belarus	–	–	–	88.7[e]
Georgia	4.6	4.7	8.3	83.0
Kazakhstan	5.8	14.0	12.3	92.6
Kyrgyzstan	6.1	15.5	12.8	92.1
Republic of Moldova	6.8	14.4	14.0	71.0
Russian Federation	9.0	20.0	13.7	84.1
Tajikistan	6.1	9.4	13.0	64.2
Turkmenistan	6.0[b]	12.4[b]	11.1[b]	72.1[b]
Ukraine	7.6[a]	18.3[a]	13.4[a]	88.1[a]
Uzbekistan	–	–	–	–

Source: WHO Regional Office for Europe health for all database.
Note: [a] 1998, [b] 1997, [c] 1996, [d] 1995, [e] 1994, [f] 1993, [g] 1992.

encourage specialists to return patients to the primary setting for follow up care. While patients paying out-of-pocket may continue to over use secondary medical services at their own expense, third-party payment mechanisms will ensure compliance in the provision of the basic package. The Ministry also plans to use licensing to contain the expansion of secondary medicine.

Standards of care are patchy. The Ministry of Health monitors quality of services by hospital, measuring: mortality rates; postoperative complications; postoperative deaths; length of stay compared with national norms, etc; and it would seem that there are significant differences between regional centres.

The state of the health sector infrastructure varies. Many regional hospitals are old; their buildings have deteriorated and their equipment is poorly maintained or obsolete. While most still have standard equipment for basic diagnostic tests, they cannot obtain or afford the necessary reagents and chemicals. By contrast, medical facilities in the earthquake zone are of a high standard following humanitarian efforts to rebuild and re-equip stricken hospitals. Provision in Yerevan is mixed. Patient satisfaction is not measured formally, but may be characterized as low.

It is worth nothing that there are some positive developments in secondary care provision which help provide a more optimistic framework for the future development of health care services in Armenia. One of these concerns a hospital in Ashotsck, which is state-owned, and which several years ago was given to an Italian NGO (Kamelyan Brothers). The NGO finances 100% of operating costs, and high quality services are provided free of charge.

Social care

Public social care services in Armenia are extremely limited. The private sector is not involved in provision of these services. There is a single hospital for the mentally and physically handicapped and there are no nursing homes, for the patients needed continuing, long-term care. There is no provision of long-stay hospitals for the chronically ill and there are no daycare centres for special needs groups, nor is there a developed network of social workers. There are only two elderly homes to serve the whole country. Rather the system depends on the Armenian tradition of caring for the extended family, on humanitarian assistance and on the acute hospital sector to meet social care needs.

This creates real difficulties for a health system already starved of resources. Acute beds become blocked with social cases, and elderly and chronically ill patients are cared for in an inappropriate setting. Mental illness causes particular strain on provision since the health sector is expected to meet the cost of both acute and chronic care. The Ministry of Health is negotiating with the Ministry

of Social Affairs to hand over responsibility for the seven regional psychiatric hospitals since they provide only long stay chronic care with little medical content. The health sector hopes to focus its resources on the two acute hospitals, acute inpatient care within mainstream hospitals and on ambulatory care.

The care of chronic conditions in acute hospitals threatens the new funding structure established by the reforms of January 1996 and also threatens the poor patients who cannot pay for these. These are based on the assumption that hospitals can compensate for the low third-party payments made in respect of the basic package by charging higher rates for services paid out-of-pocket. Hospitals where beds are blocked by long-stay patients covered by the state pricing structure will have little opportunity to generate the income needed to cover costs. The Ministry of Health is considering additional support in these instances, i.e. for psychiatric hospitals, in order to offset the inevitable losses these institutions will suffer. However this strategy is not yet tested and the results may not be evaluated at this point.

Following pressure from the Ministry of Health, the Ministry of Social Affairs has already committed itself to supporting some social care provision. It now purchases 20 000 bed days from the health sector, specifically for the care of the most socially disadvantaged (the handicapped, war veterans, etc.). This is a very small amount. Using census material the Ministry of Social Affairs then selects those that are most in need and issues them with identity cards that entitle them to free medical assistance. The number of cards to be distributed per region is based on population levels and adjusted to reflect relative levels of deprivation. The number of bed days to be purchased is determined chiefly by the resources available, while the size of the population to be covered rests on epidemiological and historical evidence of the call made on health services by the qualifying population. The possibility of replacing ID cards with cash payments (or vouchers) made direct to qualifying individuals is being investigated.

As of 1 January 1998, the number of registered pensioners was 587 800, including 388 898 over 60 years of age (15.2 % of the population). According to existing legislation, pensioners are paid from the Pension and Employment Fund (obligatory social payments). The government has set the minimum pension at 2200 drams (US $4.4) per month, while the average pension is 3645 drams (US $7.4) per month.

Since many elderly couples and single pensioners are financially supported by their children, the problems of the elderly are being solved by the family and not by the state.

The Ministry of Social Welfare has developed a system of family allowances. Preliminary estimates indicate that 200 000 families will be covered. The

average state assistance per needy family will be 74 500 drams (US $149) per year.

Human resources and training

The Ministry of Health estimates that Armenia is massively over-provided with doctors. However, as Fig. 10 and Fig. 12 reveal, Armenia is actually in the mid-range of the NIS, the CCEE and western Europe with respect to number of doctors per 1000 population, and below both the NIS and the EU averages. The number of nurses, on the other hand, is below the CCEE and especially NIS averages, and is on the lower end of the ranges shown for NIS, CCEE and western Europe in Fig. 12.

Table 6 shows that the number of physicians per 1000 population increased by over 20% in the decade of the 1980s, but by 1999 had dropped to nearly the 1980 level.[24] The number of dentists doubled in the 1980s, and remained at roughly the same level throughout the 1990s. Nurses increased the most in the 1980s by roughly 33%, then fell in the first half of the 1990s to rise again to early 1990s levels by 1999.

The number of pharmacists appears to be declining; however this may well not be the case since, following the complete privatization of pharmacies, there has been no proper reporting to the Ministry of Health and hence the true number of pharmacists is unknown. In view of the profitability of the now fully-privatized pharmacy sector, the actual number of pharmacists may have increased.

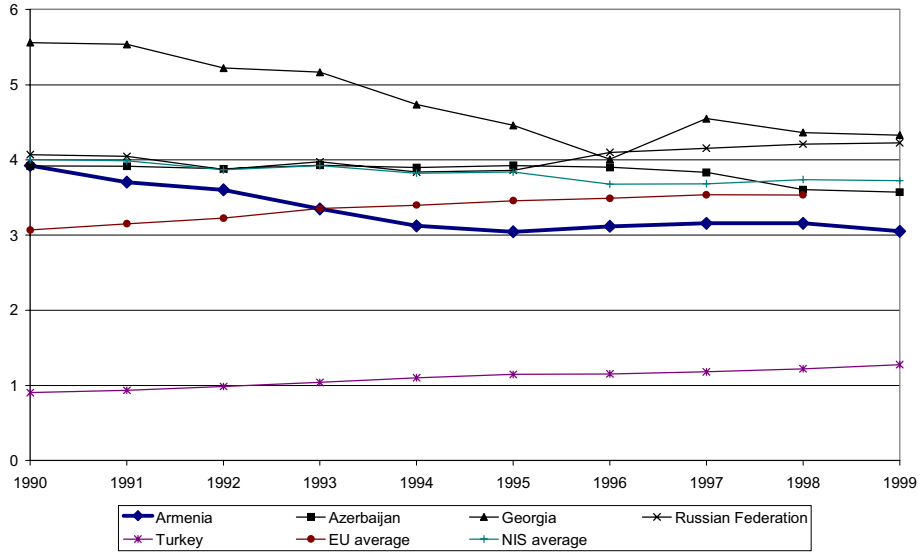
Table 6. Health care personnel, 1980–1999

Per 1000 population	1980	1985	1990	1992	1994	1996	1997	1998	1999
Physicians	3.21	3.58	3.92	3.60	3.12	3.11	3.40	3.43	3.32
Dentists	0.16	0.23	0.32	0.29	0.28	0.29	0.31	0.31	0.30
Nurses	5.45	6.15	7.29	6.55	5.95	5.43	7.00	6.80	6.49
Midwives	0.58	0.61	0.67	0.61	0.58	0.54	–	–	–
Pharmacists	0.12	0.19	0.22	0.20	0.13	0.09	0.04	–	–
Physicians graduating	0.10	0.12	0.10	0.11	0.14	0.14	0.18	0.14	0.09
Nurses graduating	0.60	0.62	0.72	0.66	0.47	0.44	0.19	0.11	0.35

Source: Ministry of Health of Armenia.

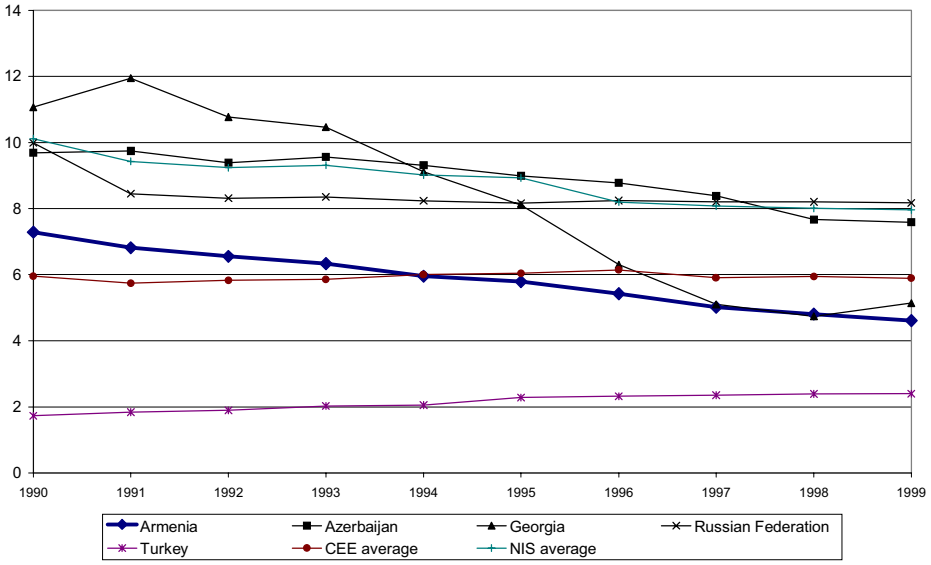
[24] It will be noted that there are some discrepancies between the data provided by the Ministry of Health (Table 6) and that of the WHO health for all database (Fig. 10, Fig. 11 and Fig. 12). The discrepancy is most notable in the case of nurse numbers, and is due to the use of differing specifications as to which individuals qualify to be counted in the various categories of health care professionals.

Fig. 10. Physicians per 1000 population in Armenia and selected European countries, 1990–1999



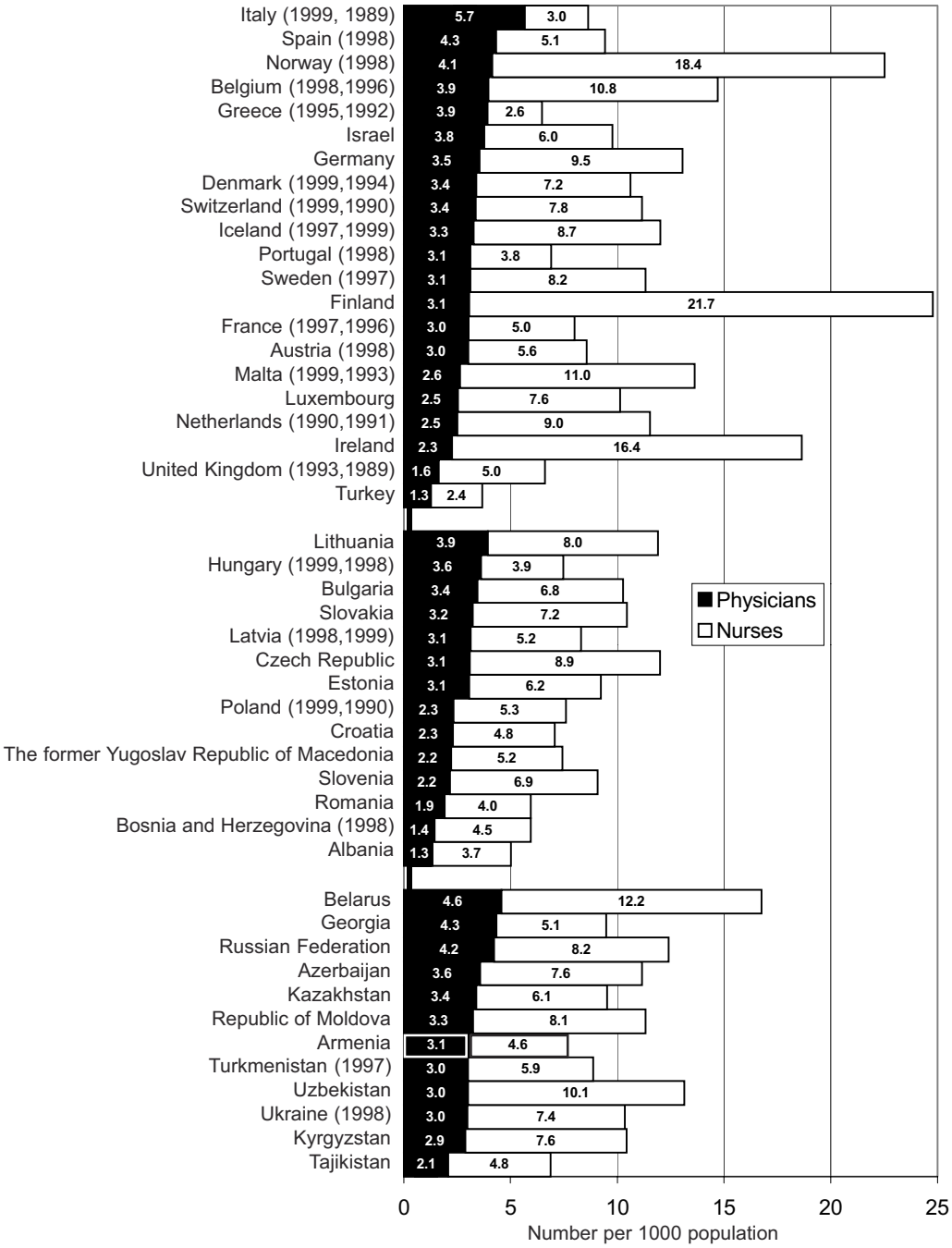
Source: WHO Regional Office for Europe health for all database.

Fig. 11. Nurses per 1000 population in Armenia and selected European countries, 1990–1999



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

Fig. 12. Number of physicians and nurses per 1000 population in the WHO European Region, 1999 or (latest available year)



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

Demand for entry to medical and nursing schools remains high despite the poor morale of the professions and their low official rates of pay. Indeed, five private medical schools and ten private nursing colleges were established on independence and continue to recruit, despite the fact that the Ministry of Health does not recognize them and has no plans to allow their graduates to sit state examinations or to be licensed to practice. The Ministry of Health only accredits the one state medical school and seven official nursing colleges.

In addition to its refusal to recognize private medical training, the Ministry of Health is cutting back on the number of places in the state medical school. In 1992, 700 students were admitted to study medicine while in 1995 there were only 250 places available, of which only 100 were provided free-of-charge. This can be seen in the sharp drop of graduating physicians in the last years of the 1990s, appearing in Table 6. The remaining 150 students paid fees to cover the cost of their education. The entrance to medical school has therefore become highly competitive with students selected on the basis of examination results and only the top 40% receiving scholarships. Reductions in the number of places at nursing colleges are also under way although the cuts are less extreme. These restrictions in student numbers should increasingly be felt in the numbers of new health professionals entering the workforce. However, these measures raise the issue of inequity in competition between rich and poor candidates for admission.

The Ministry of Health has also addressed the training of specialists, it has introduced postgraduate residencies for physicians wishing to pursue medical specialties and is developing new training for general practitioners/family doctors. There are plans to fund the retraining of small numbers of physicians who wish to move into primary health care although the majority will be expected to finance their own studies. The training of nurses consists of a three- or four-year programme, the latter preparing nurses for teaching, management and higher-level clinical positions. Midwifery training is separate from that of nursing, and generally last three years. The training of feldshers has also been reviewed and will consist of a one-year intern programme to follow basic nurse education and will allow feldshers prescribing rights. The National Institute of Health offers training in management and administration and seeks to build the management capacity of the hospital sector by encouraging hospital directors to collaborate with health economists and professional administrators. It also provides advanced training for clinicians and pharmacists.

The American University of Armenia, founded in 1991, has developed a Master of Public Health Program which is affiliated with the Johns Hopkins University's Bloomberg School of Public Health. This program has already

produced a number of well-trained public health professionals staffing both governmental and private health services. In addition, through its Centre for Health Services Research the program has been involved with a number of research projects over the past eight years.

The Ministry of Health has withdrawn from direct intervention in staffing or remuneration levels and will rely on self-regulation mechanisms and hospital directors to determine numbers of staff employed and salary agreements. This makes it impossible to predict the rate at which medical unemployment will become a feature of the Armenian health care system, although it seems inevitable that large numbers of medical staff will lose their jobs, which already started to happen.

The Ministry of Health has retained its rights to regulate standards of medical staff and has recently reformed the licensing system. As of 1 April 1996, all doctors, nurses and pharmacists have to submit to a re-licensing process every five years, paying a small fee to cover administrative costs (the fee ranges from 5000 to 12 000 Armenian drams, which is the equivalent of US $15–25. This involves a computerized multiple choice test, an oral examination, an analysis of the candidates' work experience and a review of references. Staff are also expected to have completed between one and four months' continuing education in their specialist area in any five-year period. A central licensing board composed of distinguished professors and headed by the Minister of Health will consider all applications and issue licenses valid for five years only, including accreditation of individual staff to carry out particular interventions. There will be no regional licensing mechanisms. Eventually this system will be extended to cover health centres, hospitals and pharmacies.

The licensing system may contribute to the reduction of personnel by preventing staff who fail to meet Ministry of Health standards from practising. However, it is designed primarily to enhance standards and not to implement staff cuts. It will ensure that staff are abreast of current practice and that they comply with regulations on continuing education.

The reform process thus seeks to address the core human resource issues of overstaffing and poor quality of care through restructuring of payment mechanisms and licensing. These initiatives are to be supported by revised training provision and a new focus on management skills.

Pharmaceuticals and health care technology assessment

Armenia's drug policy objectives and strategies are described in a drug policy document that was developed at an early stage of the transition process and has been helpful in achieving consensus within the sector and attracting the attention of politicians. In addition, discussions about a drug law dealing with drug regulation and licensing triggered a wide debate about the place of pharmaceuticals in the health care system, about the degree of private participation to be permitted, and how the sector should develop in the future.

The disruption of the health system in the decade of the 1990s and the influx of drugs through humanitarian assistance programmes make it difficult to accurately describe the consumption of pharmaceuticals. For much of the early 1990s many pharmaceuticals were not available and consumption was depressed. However, the Ministry of Health has identified irrational and excessive prescribing, exacerbated by patient expectations, as a major problem. Physicians, having to shift from almost unlimited freedom to prescribe "at no cost" consider recent measures to promote more rational prescribing to be only temporary.

Given that most pharmaceuticals are imported[25] and are therefore relatively expensive, the Ministry of Health took steps to encourage a more cost-effective pattern of consumption. In accordance with reform measures, the population covered by the basic package is to receive free pharmaceuticals when treated as inpatients but hospitals have to cover the cost of drugs from the fixed case payment. This is intended to encourage hospitals to monitor and limit physicians' prescribing. In practice, however, state funds have been insufficient to fully cover inpatient pharmaceutical requirements, with the result that even patients identified to be in the vulnerable groups often must pay out-of-pocket. It is estimated that as much as 80% of inpatient drugs are purchased privately by patients. Outpatients covered by the basic package officially are to pay a nominal sum towards the cost of drugs and the state must reimburse pharmacies for the full cost. However in practice it is hard to find evidence of such reimbursement, and in fact even covered patients must pay the full cost out-of-pocket. As practically all patients, with or without cover must pay out-of-pocket for drugs, this is expected to reduce consumer pressure on physicians to prescribe, and limit consumption.

[25] Mostly from the Russian Federation.

The Ministry of Health is promoting an essential drug concept as a framework for a National Drug Policy that was adopted in 1995. This policy encourages prescribing generic drugs from the national essential drug list and Armenian drug formulary that came out in 1997. In May 1997 a new monitoring system on the prices of pharmaceuticals was introduced. In 1998 ten drug and therapeutic committees were established in ten hospitals of Yerevan. In the period 1998-2000 Optimal Drug Treatment Guidelines on 40 priority diseases were developed and published. The Ministry of Health is also responsible for ensuring that Armenia implements policy on controlled drugs.

In spite of progress made in the direction of rationalizing drug consumption and regulation, corrective measures for inappropriate prescribing are insufficient, due to limited drug utilization studies, lack of mechanisms for adverse drug reaction monitoring, and insufficient statistical information on drug related problems.

Supply continues to be problematic although the situation has been eased considerably by the privatization of pharmacies. Pharmacies are now free to import and purchase drugs. The Ministry of Health monitors and regulates quality on the basis of the Armenian Drug Law adopted in 1997. This is enforced by the licensing board chaired by the Minister of Health and the Drug and Medical Technology Agency that was established in the early 1990s. Profits within the drug distribution channel are limited by law to 32% of purchase cost. While the private sector is still very new, it appears that individual pharmacies are making independent arrangements to import drugs and that wholesale importing is beginning to emerge. The Ministry of Health also purchases drugs for core state programmes, such as the treatment of diabetes and tuberculosis and distributes essential drugs provided by humanitarian aid programmes. Drugs provided by humanitarian programs are estimated to contribute 40%–45% of all pharmaceuticals consumed.[26]

The lack of available funds for health care and drugs has led to lack of affordability of essential drugs for increasingly large parts of the population. Cost containment in the pharmaceutical sector has focused largely on drug prices, while other measures like generic prescribing, volume-reducing measures and incentives favoring low-priced drugs are not as yet widely used in spite of government measures to introduce these. The value added tax on pharmaceuticals further reduces affordability of essential drugs.

Therefore the main areas of policy development are improved prescribing practices and access to drugs, improved pharmacy practice and drug

[26] However it may be the case that this percentage does not take the grey market into consideration, which is substantial especially as pharmaceuticals are subject to value added tax.

management, and the development of well-functioning regulatory, licensing and inspection systems to assure the quality of pharmaceuticals on the Armenian market. Specifically, the following projects are being pursued within the framework of collaboration with WHO:

- cost-effective drug management in a group of pilot hospitals, together with improved procurement methods, improved prescribing by better selection and use of guidelines, and a pro-active role of the hospital pharmacies;
- a regional drug reimbursement pilot in the Kotayk *marz* aimed at improving access to quality drugs for poor groups with relatively high drug costs;
- improved quality of pharmaceutical services through enforcement of effective regulations;
- better treatment outcomes through efficient use of various tools and mechanisms for appropriate drug prescribing and use;
- development of an action plan for national drug policy implementation, needed for coordinated implementation and monitoring and for ensuring more active involvement of different stakeholders at various policy levels.

Equipment purchases are all but non-existent at present and there are real difficulties in maintaining existing equipment in working order. However, the increased autonomy of hospitals entitles them to make whatever purchases they are able to fund. The Ministry of Health recognizes the danger that with renewed prosperity there may be inappropriate investment in high technology equipment and plans to address this under the new licensing system. Hospitals will be obliged to seek licenses, not only for the staff who are to operate any given piece of equipment, but also for the equipment itself. The Ministry of Health intends to withhold licenses for equipment that is deemed to be inappropriate and will endeavour to restrict high technology to the tertiary setting.

Financial resource allocation

Third-party budget setting and resource allocation

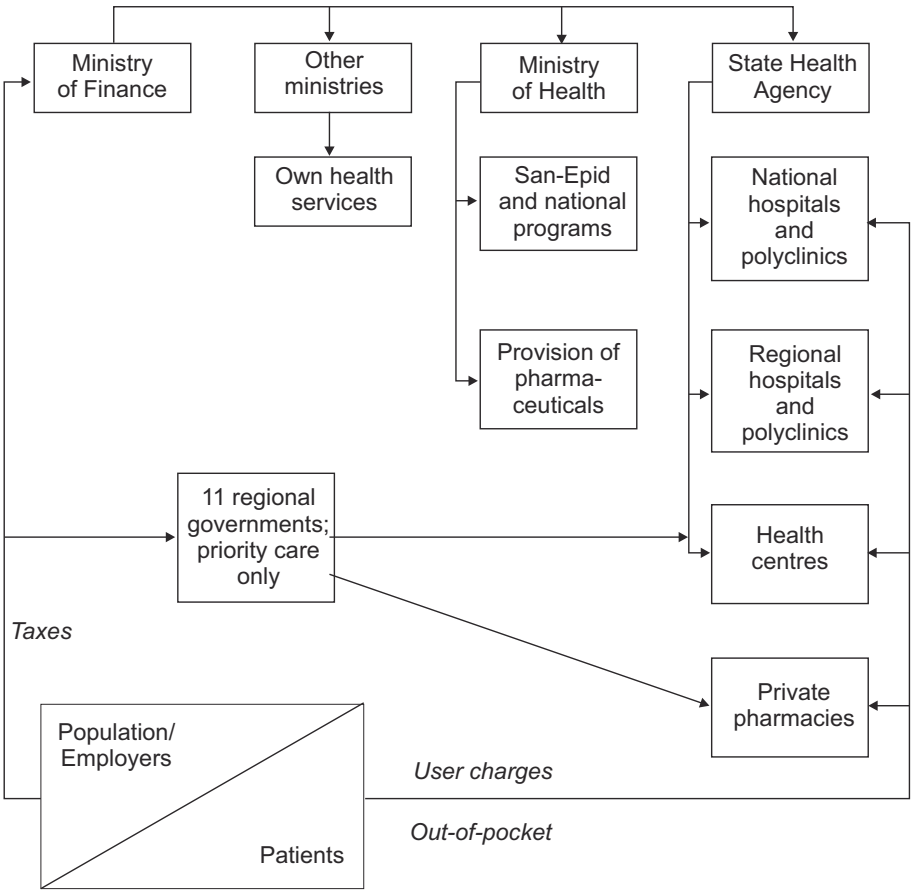
The reforms have transformed the scope of third-party budgets within the Armenian health system. Public funds since 1997 are restricted to the provision of the basic package. The budget is estimated by the Ministry of Health on the basis of the number and mix of cases within the covered population in the previous year and the fixed tariff for bed days and outpatient visits. The cost of republican, epidemiological and sanitary services is also included. The Ministry of Finance approves the proposed budget and it is submitted to parliament for approval and formal adoption.

The main budget lines in the state-financed health care programmes are the following:

- state health management and administration costs
- hospitals, including treatment of tuberculosis, infectious diseases, STDs, maternity care, psychiatric diseases, narcology, hemodialysis, and others (services for social vulnerable groups)
- primary health care (basic services for children, social vulnerable groups, adults and elderly)
- emergency health care
- hygiene and anti-epidemic control services
- other health-related expenses.

In the period between 1995 and 1998, the state budgetary resources for health were distributed between the Ministry of Health and the regional governments which, following the decentralization of the mid-1990s, had become major third party payers for health care services.

Fig. 13. Financial flow chart



In 1998, the State Health Agency, an independent governmental organization, was established with World Bank assistance as an initial step toward the establishment of a social health insurance system. It assumed health care financing responsibilities. However, as financing reforms did not extend to health insurance premium collection, and as all public financing of health care remains as yet financed by taxation revenues, its tasks remained confined to distributing the state allocations for health received from the Ministry of Finance to health care facilities. It is therefore currently the third party payer for primary, secondary and tertiary care facilities. The state budget is distributed between the Ministry of Health (about 20% in 1999) and the State Health Agency (about 80%).

The State Health Agency distributes the state funds on a per capita basis to the 11 *marz* for primary health care and by global budgets for secondary and tertiary care. These funds flow directly to providers based on contracts. While the 11 *marz* lost their role in the distribution of state budget funds for health care in 1998, they may supplement state funds from local revenues if they choose.

Capital investments are no longer funded centrally. The only capital budget retained at a regional and central level is a minimal sum earmarked for renovations. Hospitals will now be expected to finance the acquisition of equipment through funds accumulated from profits.

At the end of 1999, the Ministry of Health introduced a new policy for health care system structure, management and financing which was to start from 2000. The main change in policy was to clarify accountability arrangements of the State Health Agency and try to bring it back under the control of the Ministry of Health. The new policy also sought to experiment with the separation of a few hospitals where only public funds will be concentrated. These policies are in the phase of discussion.

Payment of hospitals

Traditionally, district administrations passed an agreed funding allocation to hospitals in line with bed numbers and the size of outpatient facilities.[28] During the transitional stages of the reform process the payment formula relied on case payment criteria rather than the size of facilities. The Ministry of Health fixed the price for an outpatient visit and for a single bed day and calculated the average length of stay in any given inpatient category. It also set out coefficients for each category which reflected the variation in cost between different medical and surgical specialties. Local government then took the numbers of cases treated historically and calculated the cost of continuing provision at historical levels using Ministry of Health prices. Hospital budgets were estimated on this basis and paid prospectively on a quarterly basis. At the end of each quarter, activity levels were reviewed and the subsequent quarter's budget was adjusted to reflect the actual volume of work. Where cases treated fell below expected levels money was deducted from the budget instalment due.

From July 1997, primary care (outpatient care) financing has been on a per capita basis, and hospital financing became volume-based (treatment of a case). Each expected outpatient visit triggers a pre-defined payment and each estimated

[28] Hospital directors also managed polyclinic budgets.

bed day an amount based on a standard price per day. No negotiation takes place at regional level but local adjustments are made quarterly. The appropriate number of outpatient visits for any given condition is defined by the Ministry of Health in order to prevent abuse of the system, i.e. four visits per case of pneumonia, ten routine visits per child in the first year of life, etc. Inpatient case payments are centrally determined and reflect the average length of stay in the previous year. They cover all drug and treatment costs. Hospitals can retain any savings made by reducing length of stay and it is expected that this will ultimately reduce fixed case payments since the average length of stay per case will be reviewed annually.

In June 2000 a government decree on the BBP introduced the concept of the global budget for hospitals as a means to control expenditure increases (in effect since 1 August 2000). In the same decree, two free-of-charge hospitals for the entire population were designated.

Hospitals set their own prices for all interventions not covered by the basic package using a case payment approach supplemented by a per diem charge for hotel services. They are expected to produce a clear schedule detailing prices and the exact content of each package of care. It is likely that they will charge on a fee-for-service basis for additional interventions, tests, etc. It is too early to identify exactly how these changes will impact on the system but per diem charges may be in the region of 5000 drams (US $8–10) a day with basic operations costing up to 120 000 drams. Outpatient centres are also entitled to set prices for ambulatory care and will publish prices per visit, X-rays, etc. The Ministry of Health will monitor hospitals and polyclinics and put a ceiling on the profits which can be made.

Hospitals will be expected to generate sufficient income to cover salaries[29] and will pay 37% tax on their total salary bill. They are also liable to all other enterprise taxes, land taxes, etc., but equipment tax has been waived as has VAT (normally 20%). Currently, hospitals are expected to pay for energy but electricity payments are often suspended by the government since hospitals have been unable to meet full market costs. In the longer term, these indirect subsidies to hospitals and polyclinics are likely to disappear.

Given the over-provision of beds and staff and occupancy rates of about 33%, there is clearly room for greater efficiency. The reforms have been designed to bring market forces to bear on the health sector in the belief that this will bring about the rationalization of health care provision. They were also drawn up in the knowledge that the tax system is unable to raise sufficient revenues to fund health services. In view of this, the reforms are also intended

[29] 40% of charges are likely to go towards staffing costs.

to "devolve" some of the responsibility for funding the basic package to the level of the hospital. Third-party prices are fixed at below cost and, as hospitals are obliged to treat the covered population, they will have to generate surplus income from out-of-pocket payments in order to remain viable. The changes are radical in nature and are only now being implemented. It is too early, therefore, to evaluate the reforms in the payment of hospitals but widespread closures are expected.

Payment of physicians

Doctors and nurses were paid a fixed salary until 5 March 1996. Nurses received 2.5 times the minimum wage and doctors between 4.2 and 4.5 times the minimum wage, depending on seniority. These rates of pay were close to the national average but well below levels paid to factory workers. There were no incentives to treat high volumes of patients or to deliver quality of care. There seem to have been large numbers of medical staff who could be characterized as "unproductive" or "underemployed".

The reform process has radically changed the payment structure and removed central regulation of salaries. Hospital directors are now empowered to negotiate individual contracts with all staff. It is too early to evaluate the impact this has had, but the Ministry of Health expects payment of both doctors and nurses to be closely linked to performance in the future.

All cases treated are paid either at third-party rates or out-of-pocket, and hospital directors are able to calculate the number of patients seen by each member of staff and therefore the revenue generated. Nurses as well as doctors are included in this approach.[30] The suggestion is that fixed basic salaries will be abandoned and staff pay will be as a percentage of out-of-pocket payments brought in plus a percentage of third-party case payments. Between 20% and 40% of each case payment is likely to go towards salary costs. There will be no subsidies available to meet staff costs and the onus is on employees to generate sufficient income to cover their salaries.

The basic package payments are calculated such that physicians or nurses treating what is regarded as a core case load will be able to cover the costs of the minimum salary. It is not however, regarded as feasible for any individual to live on the minimum wage only and there are strong incentives, therefore, for staff to work efficiently and see additional patients. The fact that patients now have a legal right to choose their own doctor also provides incentives for

[30] Nurses treat named patients and their workload can therefore be monitored.

physicians to provide a quality service since those doctors who attract more patients will have the opportunity to earn bonus payments

This approach covers all professionals providing care at primary, secondary and tertiary levels. It is not yet possible to comment on its implementation but significant levels of medical unemployment are expected to arise as hospitals address their levels of overstaffing. The new approach is also expected to identify those doctors and nurses who are least efficient or motivated and to remove them from the health care system.

The Ministry of Health is also developing plans to introduce new payment mechanisms for the emerging specialist in general practice/family medicine. These may involve capitation fees and possibly bonus/target payments although these plans are yet to be finalized**.** There are no specialists in the field as yet. While current specialists are retrained in general practice or as family practitioners, after retraining they return to their previous positions. Retraining is supported by the World Bank's loan.

There has been some resistance to these proposals since the reforms threaten to abolish under-the-table payments, which have become a major source of income for medical staff. There are also concerns that all income will have to be declared, and therefore taxed.

Health care reforms

Aims and objectives

The Armenian health care reforms were prompted, above all else, by economic necessity. The health system that was inherited on independence was designed for an affluent country and was over-provided with both staff and beds. The severity of the socioeconomic crisis that faced the country in the early nineties left no option but to seek radical changes in the funding and provision of health services. The reforms were also informed by a commitment to greater openness and democracy and by a desire to decentralize: a response to the overly bureaucratic and directive style of the centralized Soviet system.

The reforms have redefined the scope of the health service:

- The Ministry of Health is withdrawing from the planning and management spheres and will increasingly confine its activities to monitoring, regulating and licensing health service activity.
- The government is now committed to providing a basic package of care in particular circumstances only, and has passed the burden for paying for health services to the individual.
- Out-of-pocket payments form a major part of health service finances and hospitals are increasingly self-financing, autonomous enterprises, responsible for covering their own costs.
- Doctors and nurses are to be paid in light of their workload and not simply for attending work.
- Legislation was passed paving the way for private medicine, and there are plans for the introduction of health insurance schemes and the extension of contracting.

The Ministry of Health hopes that the reform process will also lead to a greater focus on primary health care, and that preventive medicine and health promotion will encourage the population to take greater responsibility for their own health.

The reforms reflect the reality of Armenian society. They acknowledge that much economic activity is in the informal sector and that the state is unable to collect sufficient taxes to fund an adequate level of health care for the whole population. They also retain as central a belief in the need to provide a minimum package of care for the most vulnerable. Individuals and hospitals are therefore charged with funding health services and with subsidizing the basic package.

They are also introducing market mechanisms into the health care system. This stems, in part, from a faith in the market but is chiefly an acknowledgement of the political obstacles to closing hospitals and making medical staff redundant. While the Ministry of Health plans to rely on market forces to rationalize health care provision, it will use licensing and regulation to ensure appropriate care is offered and that it meets agreed standards.

Basic principles for the health care system currently upheld by the government include the following:

- The health services should be equitable and fair. This implies that the vulnerable have access to health services. For this purpose, public funds should be utilized. The vulnerable should also have a good understanding about rights to the services provided by the state free-of-charge. Such a targeted system can be efficient if not more than 20% of the population is considered to be poor. At the same time, the relatively wealthy should have access to a package of health services through private financing that motivates them to pay a premium.
- The health system should be efficient. Efficiency gains are expected through improving the management of health facilities: by more decentralized and autonomous health facilities; by making advantageous use of the private sector; and by making a more efficient use of state funds to support the poor, public health programmes and primary level health services. Hospitals should mainly become self-financed.
- The aims and objectives of the government-financed health services should be realistic. Programmes funded by the government should be adequately financed, otherwise should not be financed at all by the state.
- Society promotes the principle that each citizen has the individual responsibility for his or her health. The state remains responsible for a group not larger than 20% of the population who cannot afford to pay for their health services. Relatively wealthy citizens should not benefit from the state, except in the case of those services that provide benefits for the community at large such as immunizations, infectious disease control, and health promotion programmes.
- Each citizen should have freedom of choice to select a health care provider.

Content of reforms and legislation

The reforms were widely discussed prior to their introduction. Discussion papers were published, there were consultation meetings in Yerevan, and the opinions of medical personnel in the regions were also sought. Although the process did not have a high media profile, parliamentary debates were detailed and heated. A list of key pieces of legislation, government decrees and documents that emerged since independence are listed below:

In 1992 the Republic of Armenia signed one of the international health covenants, the "Convention on children's rights".

In November 1992 a Law "On sanitary-epidemic safety for the population" was passed by the Supreme Council.[31]

In 1994 the President signed the world declaration on "Children's protection, development and welfare".

In July 1994 a new system of postgraduate medical education was approved specifying the length of training for each specialty (1–4 years).

In 1995 the government adopted the "Programme of the development and reforms of the health care system of the Republic of Armenia, 1996–2000". The main areas singled out for reform were management, infrastructure, finance and education.

In 1995 the Government of Armenia introduced a new administrative-territorial structure resulting in the division of the country into 10 *marz* and the city Yerevan, which replaced the former division of the country into *rayons*.

In February 1995 an Act on decentralization and the introduction of self-financing and autonomous enterprise status of health care institutions was passed, initially as a one year pilot scheme in seven hospitals, but subsequently extended to the whole health system following positive evaluations.

In July 1995 the Constitution of the Republic of Armenia was adopted. This states that "Every individual has the right to health protection. Medical aid and medical services are defined by the law. The state is responsible for public health protection programmes, and subsidizes the development of sport and physical culture" (Article 34). In addition, "Family, maternity and childhood are under the protection and patronage of society and the state" (Article 32).

In December 1995 a Law on the licensing of all health care providers (physicians and institutions) was passed taking effect from 1 April 1996.

[31] The Supreme Council was the supreme legislative body in the period 1990–1995, and from 1995 onward was renamed National Assembly.

In December 1995, a national programme and action plan for nursing and midwifery was approved.

In January 1996, payment of hospitals and doctors was introduced providing for the shift to out-of-pocket payments for much of the population, and defining the basic package of care and the categories to be covered.

In February 1996, the Ministry of Health approved a nursing and midwifery education programme (3-year basic training). Also in 1996 a special programme for improving the post-diploma education of nurses was adopted.

In March 1996, the National Assembly adopted the Law "On medical aid and medical services for the population" which in effect abolished the Soviet system of health care financing and legalized alternative financing mechanisms for health care services (including out-of-pocket payments):

> "Everybody has the right to receive medical aid and services free of charge within the framework of state health target programmes, guaranteed by the state."
>
> "Everybody has the right to receive medical aid and services beyond the framework of these programmes at the expense of insurance compensation, personal payments and other sources, stipulated by the legislation of the Republic of Armenia."

In 1996 a decree "On protection of maternity and childhood" was signed by the president of the Republic of Armenia.

In July 1997 a government decree changed the former financing system into the new mechanism involving out-of-pocket payments for the majority of the population. This is when out-of-pocket payments were introduced.

In 1997–2000, four government decrees were issued on the subject of priority services specified in the Basic Benefit Package (BBP).

In December 1997 a government decree established the State Health Agency (SHA) with the intention to improve the efficiency of the health care system by creating a split between the purchasers of health care services and the providers. Since 1 January 1999 the SHA has been the main body in Armenia reimbursing health care institutions.

In February 1997 a Law "On prevention of HIV/AIDS" was adopted by the National Assembly.

In February 1998 a decree approved the charter of the State Health Agency, which took over the responsibility of handling state financial resources for health from the Ministry of Health.

In 1998 the first Basic Benefit Package (BBP) was introduced with the support from a World Bank loan.

In March 1998 Decree No. 174 improved the basic benefit package, and stated that the government is responsible for the provision of health services covering the majority of the population.

In November 1998 a Law "On pharmaceuticals" was adopted by the National Assembly.

In the period 1999–2000 several new health policy documents were developed with a vision of the health system in the country and stages to achieve key objectives:

- "Health for all: National approach. Health policy development in Armenia" was launched in May 1999 (see the section on *Health for all policy* for a full discussion).
- "The strategy of health care system development in Armenia 2000–2003"; this was discussed in the government and parliament in 1999. Following improvement and changes, the concept of the strategy was included in the program of the new government in the beginning of 2000.
- "The concept of introduction of medical insurance in the Republic of Armenia" was developed by the Ministry of Health and the State Health Agency, discussed and agreed by the government in August 2000 and now is under discussion in parliament.
- "The concept of the strategy of privatization of health care facilities" was developed by the Ministry of Health, discussed and agreed by the government in July 2000.
- "The concept of the optimization of the health care system in the Republic of Armenia", including timetables of the presentation of the optimization programs for different *marz* was developed by the Ministry of Health, discussed and adopted by the government in February 2001, Decree No. 80.

In 2001, a draft law on medical insurance was prepared, involving both compulsory and supplementary voluntary insurance, and is intended to provide the organizational and legal basis for the establishment of this system.

Health for all policy

The Ministry of Health places considerable importance on the objectives of the health for all policy and is attempting to introduce relevant programmes. To date, the following steps have been taken to realize the policy's aims:

- Primary health care has been identified as a priority area and the National Institute of Health elaborated a programme for the development of the primary sector in 1995.

- A national environmental health action plan was agreed by the Department of Hygiene and the Institute of Labour and Occupational Medicine in March 1996.
- Programmes targeted at the areas of childhood and maternity have been carried out by the Ministry of Health's Department of Maternal and Child Health (i.e. breastfeeding, diarrhoea) and children and pregnant women are covered by the basic package.
- Health promotion and health education initiatives are being developed and the Ministry of Health is trying to encourage health seeking behaviour.
- Future health policy steps were discussed during the Armenian National Health Policy Conference in May of 1999. The conference involved high level intersectoral Armenian leadership as well as WHO representatives and consultants.
- "Health for all: National approach. Health policy development in Armenia", a health policy document based on HFA-21, was launched in May 1999. According to this, Armenia will focus on development of:
  - multisectoral strategies to tackle the determinants of health, ensuring the use of health impact assessment;
  - health-outcome-driven programmes for health development and health care;
  - an integrated primary and hospital health care system;
  - participatory health policies that involve relevant groups in the nation and promote joint decision-making, implementation and accountability.

Based on above principles the national health development targets are grouped as follows:

- solidarity and equity in health:
- improved health for the people:
- a multisectoral strategy for achieving better health;
- management of health system transition.

Reform implementation

The reform process has taken some time to get under way, in large part because the country on independence faced such an extreme crisis as to preclude a structured approach to change. The Ministry of Health was consumed by efforts

to maintain essential provisions when drugs, fuel and transport were all but unobtainable. However, there was also a strong feeling within the ministry that since the reform of the health sector would be radical, by necessity it should be carefully formulated and evaluated. It was not until mid-1994 therefore that the first health care reform legislation was introduced. This focused on medical education and was followed in 1995 by government decisions on licensing of doctors and hospitals and a national action plan for nursing. In 1996 there followed legislation on the education of nurses and midwives. The Ministry of Health also adjusted payment mechanisms for hospitals introducing a case payment formula that reflected average length of stay and cost for each category of care. Although prospective budgets continued to be based on historical activity levels, quarterly adjustments were made reflecting actual numbers of cases treated. The main thrust of the reforms however was contained in two pieces of legislation: the Act on Decentralization of February 1995,[32] and the reform package of January 1996.

These two policy positions provided for a total reworking of the health care delivery system, fundamentally altering the nature of the Armenian health service. Patient payments for all health care services (with the exception of patients that fall into certain protected categories) were legalized, although even covered patients are expected to pay for some services. Hospital and polyclinic management was separated. Since 1993, state health care institutions had been reorganized into state health enterprises, i.e. semi-independent units which could generate their own revenues parallel to budget financing and with the authority to control spending of revenues they generate. Since 1995 hospitals have been allowed to provide private services in addition to state-financed ones. However, striking the right balance between private and state coverage of health care remains a very difficult task. In the beginning of 1998, following a cabinet decision, all state health care enterprises were reorganized into state-owned shareholding companies. Payment of doctors on the basis of volume of work was initiated, with guaranteed salaries disappearing altogether.

The Ministry of Health has given up many of its planning powers and market forces will increasingly determine certain dimensions of the health care system such as which health facilities survive the expected reduction in services. In 1997/1998, the State Health Agency (SHA) was established and approved, creating a split between the purchasers of health care services and the providers, and assumed a financing role formerly carried out by the Ministry of Health. Since 1 January 1999, the SHA became fully functional as the only body in Armenia reimbursing providers of the state's basic package of services.

[32] This allowed for the piloting of some of the reforms that were generalized in January 1996

Thus, decentralization of the system has to some extent taken place, but has created some problems. These include the introduction of inter-regional funding inequities, unbalanced national health priorities in each region, confused lines of authority and accountability as well as operational problems. Functional management, regulation and mechanisms of quality control have been weakened. The introduction of the State Health Agency as a government organization independent of the Ministry of Health responsible for health care financing has produced tensions with Ministry of Health authorities.

Practically all pharmacies and a substantial proportion of dental services have been privatized, and there are plans to proceed further with privatization of health facilities (primary care facilities and hospitals). The government appears to be attaching great importance to privatization as a means of increasing efficiencies and securing more resources for health care; however, a privatization policy has yet to be adopted.

As the state retains a regulatory and monitoring role, it ensures that a minimum package of care is provided for the vulnerable. It does not, however, attempt to fully fund these core services but pays for them at a rate estimated to fall below treatment costs. By obliging physicians and hospitals to treat the segments of the population who have coverage at fixed prices lower than costs, the government effectively forces providers (and hence paying patients) to subsidize the cost of the basic package. All persons not falling into a targeted category must pay out-of-pocket in full for all health care services and pharmaceuticals.

To establish a framework of state health care, implementation of a programme in cooperation with the World Bank involving US $10 million was initiated in the spring of 1998. This project focuses on development of primary health care and health care financing. Improvement of health care financing mechanisms through the development of a system of social insurance and the encouragement of private, voluntary insurance, remains one of the leading objectives of the government's health policy. However, low incomes of the population (including health workers) and the presence of a very widespread shadow economy make this a longer term objective that will only gradually be achieved.

It is clear from the above that the structure and functioning of the health care system in Armenia have changed drastically since the Soviet period as a result of the reforms, particularly in the period after March 1996 when the most significant reform components began to be introduced. In view of the radical nature of many of the changes, as well as the dire political and economic

circumstances that prompted them, it is not surprising that difficulties have appeared in the course of implementation.

Numbers of health facilities, their hierarchical structure and legal status still need to be determined and regulated. The number of hospital beds exceeds the county's needs and does not realistically correspond to the resources available in the country. A national system of health care standards and quality control has yet to be introduced. In spite of the World Bank project primary care development has not been prioritized to the degree required.

Medical education reforms have not been fully implemented, thus resulting in excessive physician numbers, who moreover are unequally distributed among specialties and regions.

In the pharmaceutical sector, there are no state regulations on pharmaceutical pricing and procurement, thus limiting affordability of even essential drugs. Medical technology and equipment in facilities are often obsolete, whereas what medical technology is available is used and distributed inefficiently.

Humanitarian aid and international assistance programs are often poorly coordinated and do not always address the country's real needs, or are inappropriately distributed among health care facilities and the population.

In the public health field, routine administrative and control functions prevail over the activities of the hygiene-epidemiological service, to the detriment of work for disease prevention and monitoring.

Perhaps the most challenging problem that must be faced involves the drastic decrease in access to health care services and the decline in the population's and health professionals' confidence in the health care system and its ability to provide even the most essential services to vulnerable groups, due to the introduction of private, out-of-pocket payments and the increase in underground payments which has accompanied the new financing system.

It is clear that the transition to a smoothly functioning health care system will take a longer time to be completed than originally envisaged. Although generally supported, the reform process has experienced a certain degree of resistance. In the course of the reforms, the Ministry of Health experienced a change of four ministers, who in their turn changed their working groups, modified the direction of the reform and brought their own vision into the future health system. This explains a certain instability that has been felt in the sector. Several health policy/reform documents (on strategy, privatization, and medical insurance) have been adopted by the government in the last few years, however due to frequent changes in governments of Armenia, these documents do not ensure sustainability of each reform direction and its implementation

However, the overall reform process is being pushed forward by the Ministry of Health and the National Institute of Health, and enjoys general political support, despite some delays in securing agreement for certain items of legislation. While there are enormous challenges facing the whole Armenian health care system, there appear to be few, if any alternatives to pushing ahead with the restructuring envisaged.

A document entitled *Strategy of health care system development in Armenia: 2000–2003*, recognizing and outlining many of the above issues, presents certain goals and directions of a strategy for health care development which was accepted by the government in early 2000. On a general level, the main long-term directions and objectives regarding the health care system are the following:

- increased access to health care services
- improvement of health care structure and management
- introduction of medical standards and improvement of quality of care
- promotion of primary health care
- balancing social and market values with respect to health care.

Conclusions

Results of the Armenian health care reform process to date do not appear to meet all of the objectives of health care policy, although some improvements in certain areas can be discerned.

The Armenian health system has introduced radical reforms which accept that health care can no longer be provided free and on demand to the entire population. The incorporation of direct out-of-pocket payments into the funding system obviously undermines the principle of equity with respect to both financing and access. The government has ensured that a basic package of care is still available to the most vulnerable groups, although funding has usually fallen short of targets, thus requiring patient participation in financing even in the case of the targeted groups. Due to the unafforability of health care services to very large segments of the population, there are concerns about the possible impact of these measures on health status over the short term to medium term. However, in the long term the growing emphasis on primary care, health promotion and preventive measures may lead to a generalized health gain.

In the longer term, health service efficiency should certainly be enhanced by the reforms, in spite of serious short-term problems. Doctors and nurses now have incentives not only to treat more patients but to ensure patient satisfaction, and hospital management have a clear interest in prescribing levels and cost-effectiveness. Over-provision will diminish as the new funding mechanisms take effect. Already, there has been a sharp reduction in the number of hospital beds, resulting in some cost savings, and are likely to continue further.

Consumer choice has been extended through private payments, with private services emerging in drug retailing and dentistry and all patients being guaranteed a right to choose their doctor. However, the gatekeeping role has been introduced and access to secondary care is restricted to those with a referral from a primary care physician. Quality of care should improve as medical staff come to appreciate that their pay is now linked to the number of patients who

choose to consult them. Changes in the education, training and licensing procedures will also promote quality of care and lead to the exclusion of doctors who do not meet certain standards and the closure of sub-standard hospitals.

The prospects for health status as well as the health care system are inextricably linked with the future success or failure of the Armenian economy. As the Armenian economy stabilizes and embarks upon a period of longer term sustained growth, increasing incomes will also generate additional funding for health services. It will be imperative in this context for the government to try to re-channel resources currently in the underground economy, thus further increasing available public funds. The entrepreneurial skills of the population may also swell tax revenues in the long term. More funding would allow the Ministry of Health to extend the basic package and devote additional resources to primary health care. In the meantime the Ministry of Health will be focusing on establishing an affordable system in which quality of care can be guaranteed.

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