

HiT summary

Armenia

Brief introduction

Government and recent political history

Formerly a republic of the Soviet Union, Armenia declared its independence in September 1991 and became a republic headed by a President.

Population

Estimated at 3 798 200 in 1998, this is held to be an overestimate due to extensive emigration. Most of the population is Armenian, with small Kurdish and Russian minorities (less than 2% of the population). There has been a rapid fall in the natural growth rate of the population, from 17.3 per 1000 in 1990 to 3.3 in 1999. There is a large Armenian diaspora of about 4 million people.

Average life expectancy

Life expectancy was the highest of all the former Soviet republics in the early 1980s. It fell in the early years after independence but is now climbing again. In 1999 it stood at 74.7 years.

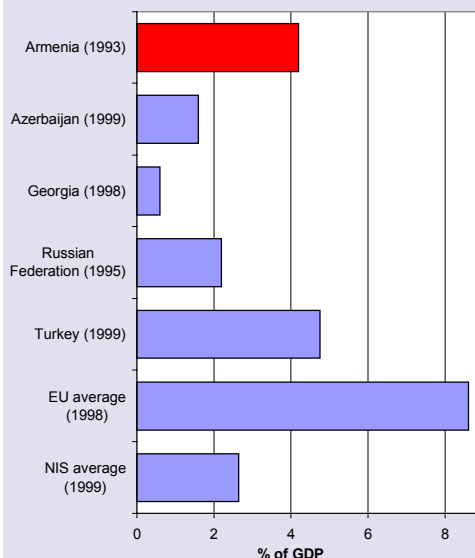
Leading causes of death

Falling life expectancy during the first half of the 1990s was due to increases in cardiovascular disease, cancer, diabetes, tuberculosis and others. The incidence of major communicable diseases has increased.

Recent history of the health care system

The health care system was highly centralized in line with the Semashko model of the Soviet Union. The entire population had access to a

Fig. 1 Total health care expenditure as % of GDP, comparing Armenia, selected countries, EU and NIS averages



Source: WHO Regional Office for Europe health for all database

comprehensive range of medical services free at the point of access. Following independence, devastating economic and sociopolitical problems forced a radical reform programme which introduced out-of-pocket payments for the bulk of health care services provided to the public (i.e. all non-vulnerable and non-targeted groups of the population).

European Observatory on Health Care Systems
WHO Regional Office for Europe
Scherfigsvej 8
DK-2100 Copenhagen
Denmark
Telephone: +45 39 17 14 30
Telefax: +45 39 17 18 70
E-mail: observatory@who.dk
<http://www.observatory.dk>

Reform trends

The government is seeking to diversify sources of financing while increasing the emphasis on primary health care and introducing efficiency-enhancing measures. A draft law on compulsory medical insurance was being reviewed in late 2001.

Health care expenditure and GDP

Total expenditure on health was estimated to be 4.2% of GDP in 1993, though this figure most likely underestimates private, out-of-pocket payments.

Overview

On independence, Armenia faced extreme economic crisis and initially this prevented a structured approach to change. Efforts focused on maintaining basic supplies, many of which were all but unobtainable. Concerted reforms were initiated in the mid-1990s, based on the premise that health care can no longer be provided free and upon demand to the entire population. Most people now have to pay in full for their medical care.

Although the government attempts to ensure that a basic package is provided free of charge to vulnerable groups, funding shortages mean that even these groups must sometimes pay out-of-pocket. These changes have undermined the principle of equity, and there are concerns that the health of the population may be affected. Some progress has been made regarding efficiency gains.

The planned introduction of compulsory medical insurance with supplementary voluntary insurance, together with decentralization of the Ministry of Health functions and increased provider autonomy should further accelerate this process while also helping to mobilize funds for the health sector.

Organizational structure and management

Organizational structure of the health care system

The core centralized organizational structure that prevailed during the Soviet period remains fundamentally unchanged. Key players in the system include the following:

- The Ministry of Health has been reduced in size and is increasingly divesting itself of its centralized powers and responsibilities. It is the key force determining national health policy.
- The State Health Agency was established in 1998 as an initial step in the direction of developing a full-scale social insurance system. It receives the state allocations for health from the Ministry of Finance and distributes these to health care facilities with which it contracts. Its establishment in effect constitutes a separation between purchaser and provider functions.
- Following decentralization, there are currently eleven regional (*marz*) governments which have taken over district responsibilities for health care.
- State health care institutions became semi-independent units from 1993, with the capability to generate their own revenues parallel to state financing.
- There is no effective insurance system currently in operation. While legislation allowing voluntary insurance has been passed, this is as yet very limited.
- The private sector remains limited. Private practice is permitted as of 1996, however very few private practitioners have appeared. There are several private hospitals.
- There is a wide range of international non-governmental organizations delivering humanitarian assistance and implementing health programmes.

Planning, regulation and management

The Ministry of Health plays a key role, and is responsible for much of health care planning. At the regional level governments are involved in drafting optimization plans focusing on the planned reduction of hospital bed capacity. There is a growing belief in the rationality of the market as a mechanism in resource allocation, with many areas previously subject to central control being increasingly decided upon by market forces. As the Ministry of Health gradually withdraws from the planning arena, it relies more heavily on its role as regulator. Management responsibility for primary, secondary and tertiary services has been passed to provider units themselves.

Decentralization of the health care system

The State Health Agency took over responsibility for health care financing from the Ministry of Health. Regional and local governments assumed responsibility for the provision of primary and secondary care. Further, budgetary health facilities were given the status of state health enterprises, and are permitted to manage their own financial resources.

Health care finance and expenditure

Main system of finance and coverage

Public funding of health care is from general tax revenues. The budget allocation for health is distributed between the Ministry of Health and the State Health Agency which in turn divides it between the eleven regional governments on a per capita basis, with some adjustment for relative levels of disadvantage.

As a consequence of Armenia's severe economic problems following independence,

state budgetary sources proved insufficient to meet health care costs, thus forcing the introduction of a predominantly private out-of-pocket payment system of health care financing. 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 financing by legalizing alternative financing mechanisms including out-of-pocket payments. A government decree in 1997 introduced out-of-pocket payments for the bulk of health care services provided to all non-targeted and non-vulnerable groups of the population.

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. Thus 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.

There are plans to introduce a system of compulsory medical insurance, together with supplementary voluntary insurance. A draft law was prepared in 2001. It is hoped that introduction of compulsory medical insurance will contribute to increasing the funds available to health care while also creating conditions that will promote efficiency gains.

Health care benefits and rationing

In 1998 the government developed the Basic Benefits Package (BBP), consisting of a publicly funded basket of services that includes a list of services covered and specifies the population groups that are entitled to these services. The BBP is periodically reviewed and services or population groups may be added or removed. The most recent BBP, specified in 2000, includes primary health care, medical care for children, obstetric-gynaecology, medical care for socially vulnerable groups, communicable and non-communicable disease control, and emergency health care.

Socially vulnerable groups are defined to include disabled persons (according to three degrees of disability), war veterans, children under age 18 with one parent, orphans under age 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, and emergency workers

In practice, due to funding shortages, even patients falling into a priority group often end up paying for services partly out-of-pocket.

Complementary sources of finance

According to the Ministry of Health, the state is responsible for covering only roughly 25% of total health care expenditure, while 15% of funds come from humanitarian aid and the remaining 60% from private, out-of-pocket contributions. However these figures may represent an underestimate of the private contribution whose real magnitude is unknown.

Patients pay for all health care services in full unless they are designated as falling within a vulnerable group.

Under-the-table payments, which commonly featured in the Soviet system, were expected to be reduced under the new system of patient payments instituted in 1996–1997. However there is evidence that these continue to be widespread. A factor which has worked to increase them involves the very low prices paid by the state for state-funded services. As these prices are too low to cover costs of services, providers are forced to request payments from patients even in those cases where a patient is defined to be within a socially vulnerable group. It has been estimated that total out-of-pocket financial flows to the hospital sector are 3.5–4 times greater than the state budget allocation. This also allows for widespread tax evasion, with the result that a main part of the system's revenues evade official structures, making the improvement of the overall financing system exceedingly difficult.

External sources of funding include a considerable amount of international humanitarian assistance, as well as a World Bank project for the improvement of financial management and development of primary health care.

Voluntary health insurance makes virtually no contribution to financing of health care services. The government has shown interest in developing voluntary supplementary insurance, and draft medical insurance legislation of 2001 includes relevant provisions.

Health care expenditure

Fig. 1 shows total expenditure on health to have been 4.2% of GDP in 1993. This figure most likely underestimates private, out-of-pocket payments, and in all likelihood is higher at the present time. In 1999 the state health budget amounted to 1.7% of GDP and accounted for approximately 25% of total health care expenditures. An additional 15% of health care expenditures was contributed by humanitarian aid, and the remaining 60% by private out-of-pocket payments. Therefore total health care expenditures can be roughly estimated to have amounted to 6.8% of GDP in 1999.

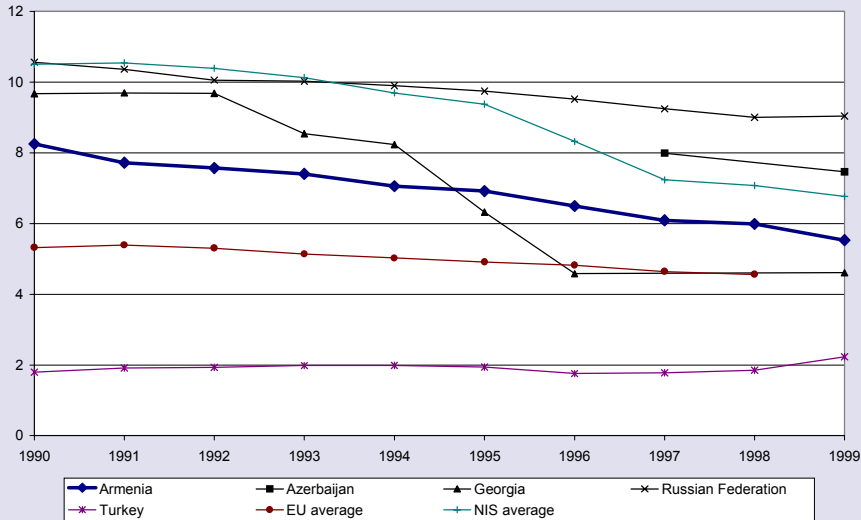
Health care delivery system

Primary health care, the patient's first contact

Services are still organized mainly along Soviet lines. Primary health care is typically delivered through regional polyclinics, or rural health posts/feldsher stations with one physician per 1200–2000 population and one paediatrician to 700–800 children. Polyclinics, previously attached to regional hospitals, have been granted autonomous status.

This is intended to end the blurring between primary and secondary care, and eliminate the perverse incentive to admit patients into hospitals.

Fig. 2 Hospital beds in acute hospitals per 1000 population, Armenia, selected countries, EU and NIS averages



Source: WHO Regional Office for Europe health for all database

There are hopes that failing polyclinics and health posts will be replaced by independent general practitioners/family doctors. Future efforts will focus on developing primary care.

Patients wishing to see a specialist doctor are required to have a referral from a primary care doctor, however the old practice of self-referral continues, particularly in the case of hospital specialists. Poor physical condition of polyclinics and health posts contributes to perpetuating the lack of confidence in the quality of care provided at the primary level. It is hoped that the reform process and plans to develop primary health care will encourage the movement of resources into the primary care sector and promote the general practice model.

While patient choice of doctor is being extended, the issue of access is a fundamental problem in view of the inability of a large segment of the population to pay for services out-of-pocket.

Public health services

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 administration, is still in place. The regional stations are managed by and report to the central level. Public health care, health education and health promotion are core components of primary care.

What little health promotion there was at independence collapsed with the post-independent crises. Preventive services are delivered via a number of routes. Immunization programmes are normally delivered through primary care clinics but are supervised by the san-epid network. Family planning services, antenatal care and screening are provided either in the conventional setting or in specialist women's polyclinics.

Secondary and tertiary care

Secondary care is offered by the 37 regional hospitals and some larger polyclinics which offer specialized ambulatory services. Tertiary care is offered by 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 are state-owned.

Bed numbers are well in excess of estimated levels of need. As can be seen in Fig. 2, acute hospital beds in Armenia are above the average for the European Union, though below the average for the NIS. Acute hospital beds show a clear downward trend: from 8.3 per 1000 population in 1990 they dropped to 5.5 in 1999, representing a 34% decline.

Occupancy rates have fallen to the very low level of 33.4% in 1999, compared to about 65% in 1990 and 70–80% in the 1980s. This is a remarkable drop in view of the decline by about one third in bed numbers over the same period. The apparent excess bed capacity is due to poor access as health care became unaffordable for a

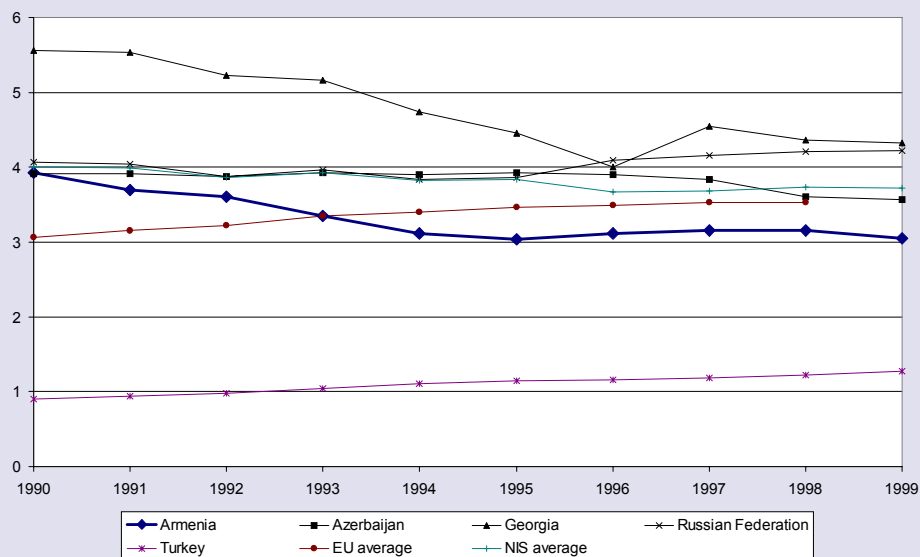
significant portion of the population. Not only are all segments of the population not identified as vulnerable groups obliged to pay out-of-pocket for all secondary care services but, in addition, state funds are insufficient to cover the Basic Benefits Package. This is substantiated by the sharp drop in admissions, which fell from nearly 14 per 100 population in 1990 to under 6 in 1999.

The reform process has introduced a move away from the integrated model and hospitals now have autonomous, self-financing status while remaining publicly owned. This is expected to lead to the closure of many provider units and therefore to the rationalization of services.

Social care

Public provision of social care is extremely limited, while the private sector is not involved in provision of such services. There is only one hospital for the mentally and physically handicapped and there are no nursing homes for patients needing long-term care. There is no provision of long-stay hospitals for the

Fig. 3. Physicians per 100 population, Armenia, selected countries, EU and NIS averages



Source: WHO Regional Office for Europe health for all database

chronically ill and there are no day-care centres for special needs groups, nor is there a developed network of social workers. There are only two elderly people's homes to serve the whole country. The system depends on the Armenian tradition of caring for the extended family and on humanitarian assistance, and relies 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.

Following pressure from the Ministry of Health, the Ministry of Social Affairs has committed itself to supporting some social care provision. It now purchases 20 000 bed days from the health sector, specifically for the most socially disadvantaged. However this remains a very small amount.

Human resources and training

Although the Ministry of Health estimates that Armenia is massively over-provided with doctors, Fig. 3 shows that it is actually very close to the averages of the NIS and the EU. The number of nurses, on the other hand, is below these averages. 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, and stood at about 3.3 doctors per 1000.

Demand for entry to medical and nursing schools remains high despite the poor morale of the professions and their low official rates of pay. A number of private medical and nursing schools 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 is cutting back on the number of places in the single state medical school. There are also reductions in the number of places at nursing colleges, though the cuts are

less extreme. In addition, the Ministry has introduced post graduate residencies for physicians wishing to pursue medical specialties and is developing new training for general practitioners/family doctors.

As of 1996, all doctors, nurses and pharmacists must submit to a re-licensing process every five years.

Pharmaceuticals

It is estimated that as much as 80% of inpatient drugs are paid for out-of-pocket. Whereas persons entitled to receive the Basic Benefits Package are to receive free pharmaceuticals when treated as inpatients, in practice due to insufficient state funds even these patients must often pay out-of-pocket. Outpatients who are covered are to pay only a nominal sum towards the cost of drugs, but here as well even covered patients must often pay the full cost. All other patients (i.e. all those not part of a vulnerable group) must pay for the full cost of pharmaceuticals.

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. A new monitoring system was also introduced in 1997. In the period 1998–2000 Optimal Treatment Guidelines on 40 priority diseases were developed and published.

Supply continues to be problematic, though the situation has eased considerably since the privatization of pharmacies which are now free to import and purchase drugs. The Ministry of Health monitors and regulates quality.

The lack of available funds for health care and drugs has led to the lack of affordability of essential drugs for increasingly large parts of the population. Cost containment in the drug sector has focused largely on drug prices, while other measures like generic prescribing and volume reduction are not as yet widely used in spite of government efforts to introduce them.

Financial resource allocation

Third-party budget setting and resource allocation

The Ministry of Health estimates the budget for health on the basis of the number and mix of cases estimated for the covered population in the previous year and a fixed tariff for bed days and outpatient visits. The cost of the san-epid system is included. The Ministry of Finance approves the proposed budget and it is submitted to parliament for approval and formal adoption.

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 decentralization of the mid-1990s had become major third party payers for health care services. In 1998, the State Health Agency was established as an intermediate step toward the establishment of a social health insurance system, and assumed responsibility for distributing the state allocation for health received from the Ministry of Finance. It is therefore currently the main third party payer for health care services. The state budget is distributed between the Ministry of Health (about 20% in 1999) and the State Health Agency (about 80%).

Payment of hospitals

Since 1997, payment of hospitals became volume-based. Each expected outpatient visit triggers a pre-defined payment and each estimated bed-day an amount based on a standard price per day. The appropriate number of outpatient visits for any given condition is defined by the Ministry of Health. Inpatient case payments are also centrally determined and reflect average length of stay in the previous year. Hospitals can retain any savings made by reducing length of stay. Hospitals set their own prices for all interventions not covered by the Basic Benefits Package using a case payment approach supplemented by a per diem charge for

all hotel services. All individuals not entitled to the Basic Benefits Package (i.e. all persons not identified to be members of a vulnerable group) must pay out-of-pocket for all services.

Payment of physicians

Until 1996 all health care personnel were paid a fixed salary. Central regulation of salaries was subsequently removed, and hospital directors are now empowered to negotiate individual contracts with all staff. It is expected that payments of both doctors and nurses will be closely linked to performance in the future.

As salary levels tend to be quite low, physicians quite regularly supplement these with under-the-table payments.

The Ministry of Health is developing plans to introduce new payment mechanisms for the emerging specialist in general practice, which may involve capitation and possibly bonus/target payments.

Health care reforms

The Armenian health care reforms were prompted, above all else, by economic necessity. The severity of the socio-economic crisis that faced the country in the early 1990s left no option but to seek radical changes in the financing and provision of health care services. In addition, the reforms were prompted by a commitment to greater openness and democracy and the desire to decentralize as a response to the overly directive and bureaucratic style of the Soviet system.

Key elements of the reforms have involved the introduction of out-of-pocket payments to form a major part of health service financing, while hospitals are increasingly becoming self-financing, autonomous enterprises responsible for covering their own costs. The Ministry of Health is gradually reorienting its activities to focus more on monitoring, regulating and

licensing health service activity. The establishment of the State Health Agency represents a separation of financing from provider responsibilities. The government is planning to introduce compulsory medical insurance together with supplementary voluntary insurance so as to increase the financing available to health care while increasing population coverage. Emphasis is being placed on development of primary health care.

Although generally supported, the reform process has encountered resistance. Frequent changes in government and in health ministers do not ensure sustainability of reform directions. The overall reform process is being pushed forward by the Ministry of Health.

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.

Conclusions

The Armenian health system has introduced radical reforms which accept that health care can no longer be provided free and upon demand to the entire population. The government has ensured that a basic package of care is available to the most vulnerable groups, however funding shortages often mean that even those groups have to pay. Thus the principle of equity with respect to financing and access is undermined. Over the longer term, efficiencies should be enhanced in response to new funding mechanisms and decentralization of responsibilities. The prospects for health status and the health system are inextricably linked with the future course of the Armenian economy. As it stabilizes and embarks upon a longer term period of sustained growth, increasing incomes will generate additional funding for health care services. In this context the government must make every effort to re-channel resources currently in the underground economy so as to increase public funds to the health sector.

Table 1. 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 (%)
Armenia	5.5	5.6	10.4	29.8
Azerbaijan	7.5	4.7	14.9	30.0
Georgia	4.6	4.7	8.3	83.0
Russian Federation	9.0	20.0	13.7	84.1
Turkey	2.2	7.3	5.4	57.8
EU average	4.6 ^a	18.8	8.3 ^a	77.1 ^a
NIS average	6.8	18.6	13.3	84.8

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.

The HiT on Armenia was written by Samvel G. Hovhannisyan (National Institute of Health, Armenia), Ellie Tragakes (European Observatory on Health Care Systems), Suszy Lessof (European Observatory on Health Care Systems), Hrair Aslanian (WHO Liaison Office, Armenia) and Ararat Mkrtychyan (Minister of Health, Armenia). The assistance of Garry Aslanyan (University of Toronto) and Nata Menabde (WHO Regional Office for Europe) is gratefully acknowledged. The full text of the HiT can be found in www.observatory.dk.

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.