Health Care Systems in Transition

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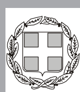

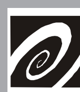
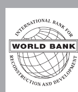

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Foreword

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

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

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

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

Compiling the HiT profiles poses a number of methodological problems. In many countries, there is relatively little information available on the health care system and the impact of reforms. Due to the lack of a uniform data source,

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

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

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The Observatory sends their condolences to the family of the recently deceased Stayko Koulaksazov.

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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 research directors Martin McKee, Elias Mossialos and Richard Saltman. Technical coordination is led by Susanne Grosse-Tebbe.

Jeffrey V. Lazarus managed the production and copy-editing, with the support of Shirley and Johannes Frederiksen (lay-out) and Jo Woodhead (copy-editor). Administrative support for preparing the HiT on Bulgaria was undertaken by Uta Lorenz.

Special thanks are extended to the WHO Regional Office for Europe health for all database, from which data on health services were extracted; to the OECD for the data on health services in western Europe; and to the World Bank for the data on health expenditure in central and eastern European countries. Thanks are also due to national statistical offices that have provided data.

Introduction and historical background

Introductory overview

Bulgaria is located in south-eastern Europe bordered by Romania to the north, the Black Sea to the east, Turkey and Greece in the south, and the former Yugoslav Republic of Macedonia as well as the Federal Republic of Yugoslavia to the west. The national capital is Sofia. Enjoying a mild continental climate, the country covers 110 993 km^2, and consists mainly of mountainous terrain with lowlands in the north and south east. Bulgaria's location, between Europe and Asia, has played a strong role in shaping its political and economic strategies.

The population numbered 7 974 000 in 2001[1] (Table 1); 68.4% living in urban areas. The ethnic composition (a contested estimate) is: 85.8% Bulgarian, 9.7% ethnic Turks, 3.4% Roma and 1.1% other groups. The religion of the majority, 85%, is Bulgarian Orthodox, 13% are Muslim, and the rest a mix of smaller sects. The Bulgarian language comes from the Slavic group of languages and is written in the Cyrillic alphabet.

The Romans conquered the land of Bulgaria in 46 BC. A Turkic group, the "Proto-Bulgars", arrived in the middle of the 6th century but were assimilated eventually by the more numerous Slavs. In 681, Khan Asparouk founded the first Bulgarian kingdom. Tsar Boris I adopted Orthodox Christianity in the 9th century and in 870 the Bulgarian Orthodox Church became independent, with its own patriarch.

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[1] This is a contested estimate. According to other sources the population is estimated to be lower on account of unrecorded emigration *(1)*.

Fig. 1. Map of Bulgaria[2]

Source: The World Factbook, 2003.

Bulgaria has spent long periods as a vassal state to more powerful neighbours and was ruled by the Byzantine Empire in the 11th century. Five centuries of Ottoman rule began in 1386, although the Bulgarians remained largely self-governing agrarian communities and continued to practice Christianity. Turkish power waned in the 18th century and Bulgarian culture began to revive in the 19th century. A revolt against the Turks was brutally suppressed in 1876. Serbia then declared war on Turkey and was joined by Russia and Romania. Bulgaria was liberated by Russia, which forced Turkey to cede a large part of the Balkan Peninsula to Bulgaria in 1878 in the Treaty of Berlin, but the western powers later reversed most of these gains. The collision of geopolitical interests of Russia and western European nations led to their interest in "the Eastern question". Independence Day is celebrated as 3 March 1878, marking the beginning of the modern Bulgarian state, with full independence from the Ottoman Empire in 1908.

The First Balkan War broke out in 1912, since the four Balkan states, Bulgaria, Serbia, Montenegro and Greece, claimed Macedonia, which had

[2] 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.

remained part of the Ottoman Empire. Bulgaria was defeated in the Second Balkan War and Macedonia was divided between Serbia and Greece. In an attempt to regain Macedonia, Bulgaria sided with Germany in the First World War, and again in the Second World War. An underground movement during the war opposed Tsar Boris III and his pro-German government. In August 1944, Bulgaria declared itself neutral in the face of the advancing Soviet Army, which entered Bulgaria in September 1944. The Bulgarian communists under Georgi Dimitrov overthrew the monarchy.

Bulgaria was declared a republic. In the elections of October 1946, Georgi Dimitrov was elected as the Communist Prime Minister. Soviet troops left the country and disputes with Greece were settled. In 1955, Bulgaria was admitted to the United Nations but remained isolated from the rest of the world under the influence of the USSR.

Collectivization of agriculture began in the 1940s and the country embarked upon major industrialization; these developments were accompanied by severe repression. Due to a relatively flexible approach to economic reform, despite general adherence to communist principles of organization, Bulgaria became one of the most prosperous countries in Eastern Europe. This prosperity began to falter by the end of the 1980s, however, due to sharply rising oil prices, reduced Soviet subsidies, delays in structural reforms, and unsuccessful attempts to finance simultaneously investment and consumption. Attempts to forcibly assimilate Bulgaria's Turkish minority in the 1980s attracted international attention and led to the mass emigration of ethnic Turks, resulting in a serious depletion of the agricultural workforce. The Bulgarian economy was supported by massive foreign loans at this time.

With the advent of *perestroika*, the fall of the Berlin Wall and public disquiet about the political and economic policies of the country, Bulgarians staged widespread public demonstrations. Todor Zhivkov had been Bulgaria's leader since 1956, but was deposed in November 1989 by an internal coup within the Communist Party. In 1991 he was the first of the deposed Communist leaders to be put on trial for corruption.

The Communist Party relinquished its monopoly, changed its name to the Bulgarian Socialist Party and won the free elections held in June 1990. A new Constitution was adopted in July 1991. There was marked political instability during the first seven years after the end of communist rule. Mass strikes provoked by price rises and unemployment resulted in the resignation of the socialist government. The Union of Democratic Forces (UDF), a coalition group, won the elections of October 1991 as the first non-communist government. A year later, the UDF government was defeated in the parliament and a new coalition installed. The Bulgarian Socialist Party won the elections in late 1994.

Following anti-government protests, an early election was held in April 1997 and won by the UDF with an absolute majority. The policy priority of the new government was to stabilize the economy and pass important legislation based on the principles of privatization, decentralization and social protection of the poorest, with the support of large International Monetary Fund (IMF) loans. Parliamentary elections held in 2001 were won by the National Movement party of Simeon II, the former King of Bulgaria. A coalition government was formed, and the former King became Prime Minister.

The Constitution of July 1991 established Bulgaria as a multi-party parliamentary democracy, governed by a single chamber (National Assembly) of 240 parliamentarians directly elected for four years based on proportional representation. The head of state is the president, directly elected for a term of five years and a maximum of two terms.

Despite some decentralization initiatives since 1991, Bulgaria remains highly centralized. The state is now divided into twenty-eight regions (*oblasti*) including the capital, Sofia (an increase over the eight regions that existed until 1998), with prefect-type administrative personnel appointed at central level. A number of ministries, including the Ministry of Internal Affairs, the Ministry of Finance and the Ministry of Health, have deconcentrated administrative responsibilities to twenty-eight regional offices.

There are 262 municipalities, each of which elects a municipal council and a mayor. Since 1992, these have been delegated substantial responsibilities for health care, local services, education and social affairs. Municipalities are responsible for collecting local taxes (retained for local budgets) and republican taxes, some of which are retained, the rest passed to the Ministry of Finance. Central government also distributes revenue to the municipalities. Although there are guidelines from central government, municipalities have some discretion about the allocation of local resources.

Bulgaria applied for membership of the European Union in December 1995 but is not among the first wave of central and eastern European countries with which the European Union has opened negotiations *(2)*. Nonetheless, there are expectations that Bulgaria will make a swift transition toward EU membership.

Social and economic indicators

Throughout the 1990s the population of Bulgaria has been declining while the population has been ageing, due to natural movement and low birth and high mortality rates. Over 16% of the population is aged 65 years and over (Table 1), the same proportion as the European Union average. The birth rate has been dropping steadily since the second half of the century *(3)*. Deaths have

outnumbered births throughout the 1990s, and the population ageing process will continue.

Population loss is due also to migration. The National Statistical Institute of Bulgaria estimates that up to 600 000 people emigrated between 1989 and 1995. This included members of the ethnic Turkish community in the wake of attempts at forcible assimilation by the previous regime. Many young people have left the country in the past ten years, seeking better opportunities for education and greater job satisfaction. Since 1995, the average annual number of emigrating individuals has been estimated at 30 000. These demographic processes signal a process of depopulation of the country.

The Bulgarian population has achieved high literacy rates, averaging 98% (for ages 15 and above).

Table 1. Demographic indicators

Indicators	1990	1995	1996	1997	1998	1999	2000
Population (thousands)[b]	8 767	8 427	8 385	8 283	8 230	8 191	8 149
% population under 18 years[b]	24.8	22.3	21.7	22.5	20.4	20.0	19.7
% population aged 65+ years[a]	12.9	–	15.3[b]	15.6	16.0	16.1	16.3
Crude birth rate per 1000 population[b]	12.1	8.6	8.7	7.7	7.9	8.8	9.0
Crude death rate per 1000 population[b]	12.5	13.6	14.0	14.7	14.3	13.6	14.1

Source: [a] WHO Regional Office for Europe health for all database *(4)*; [b] UNICEF TransMONEE database 3.0 *(5)*; [c] National Statistical Institute *(6)*.

Before the communist era, Bulgaria was a largely agricultural country of small rural landholders. Bulgaria nationalized its agriculture and industry to a greater extent than the central European countries such as Poland. Until the 1970s, Bulgaria was a leading producer of engineering and agricultural products. Living standards did not rise as quickly as expected, however, and the economy was in decline by the late 1980s.

Now one of the poorest countries in central Europe, Bulgaria has moved slowly from a command to a market-oriented economy. The population's hopes of a better life have not been met during the last ten years. By the mid-1990s, real wages had fallen to less than half their 1990 level in real terms (Table 2). Bulgaria lacked the infrastructure necessary for sustained growth: dependent on imports of energy, continuing to accumulate substantial foreign debts, with trade ties predominantly with the former Soviet Union. The 1990 moratorium on debt accumulated during the communist era cut off Bulgaria from

international financial markets until debt rescheduling in 1994. After the near collapse of the economy in the early 1990s, there were signs of recovery but this was not sustained. There was a sharp fall in real GDP in 1996 and 1997 together with triple digit inflation, associated with a currency crisis (Table 2). Slow progress on structural reforms, including the failure to privatize state assets, led the International Monetary Fund to cancel loans.

After the democratic government of the UDF came to power in 1997, significant efforts were made to reverse the negative trends of earlier years. Bulgaria restructured its foreign debts in 1997. The International Monetary Fund required Bulgaria to cut government expenditure, restructure the Soviet-style economy and set up a currency board. A key part of the structural reform programme in 1998, therefore, was the privatization of state enterprises. Economic development efforts focused on structural changes in the economy and agriculture, privatization and increased exports, which contributed to a rise in GDP. From very low to negative growth rates in most of the 1990s, Bulgaria has registered positive growth since 1998, reaching 5.8% in 2000 (Table 2). Inflation has been reduced dramatically and the banking system has stabilized. Since 1998 the Bulgarian economy has received much support from the International Monetary Fund and the World Bank.

By 1999 real GDP was 65% of the 1989 level, in common with countries in the Commonwealth of Independent States (CIS) *(1)*. Even when adjusted for purchasing power parity, Bulgaria stood at PPP US $4959 in 1998 *(7)*, compared to the central and eastern European average of PPP US $6923. There is a sizeable informal economy, based in part on barter, which is estimated to be 18–30% of GDP. Corruption on a sizeable scale is an additional serious social problem.

The consequences of the economic crisis are considerable for government services. As a percentage of GDP, government expenditure dropped from 65.9% in 1990 to 34.9% in 1997, increasing to only 44.5% in 2000.

Unemployment has increased dramatically, reaching 17.9% in 2000 according to government statistics. The International Labour Office (ILO) estimates actual rates to have increased to as much as 21% in 1993. Surveys by the National Statistical Institute reported that only 52% of the labour force (people of working age) was employed in 1996, with high unemployment among young people and women.

The economic transition has given rise to widespread poverty in the country, with an estimated 35% of the population living below the poverty line *(8)*. There are regional variations in income distribution, the northern part of the country generally being poorer than the southern. According to a 1999 joint survey by Bulgarian academic institutes, 80% of the agricultural population lives in poverty *(1)*.

Table 2. Macroeconomic indicators

Indicators	1990	1995	1996	1997	1998	1999	2000
GDP growth rate in constant prices (% change)[b]	-9.1	2.1	-10.9	-6.9	3.5	2.4	5.8
Annual inflation rate[c]	23.9	32.9	310.8	578.6	7.0[d]	11.3[d]	4.2[d]
GDP $ per capita[c]	2 180	1 559	1 189	1 224	1 484	1 510	1 459
Government expenditure % GDP[b]	65.9	43.0	47.6	34.9	40.3[c]	43.47[c]	44.5[c]
Real average wage index (1989=100)[b]	111.5	60.2	49.6	–	–	–	–
Average month wage index (1995=100)	–	100.0	81.2	67.7	81.7	89.1	91.3
Registered unemployment rate[c]	1.5	11.1	12.5	13.7	12.2	16.0	17.9

Source: [a] WHO Regional Office for Europe health for all database *(4)*; [b] UNICEF TransMONEE database 3.0 (5); [c] National Statistical Institute, Annual Statistics1998 *(6)*; Sofia and Ministry of Finance figures *(7)*; [d] National Statistical Institute *(10)*.

Health indicators

Health indicators generally worsened in Bulgaria as the economy deteriorated, with a greater deterioration in rural areas. Bulgaria is part of the growing east–west gap in mortality rates since the 1960s, especially among men of middle age. This trend continued in the transition years of the 1990s, as shown by life expectancy, which dropped from 75.1 years for women in 1989 to 74.6 in 1999 and 2000, and for men from 68.6 years in 1989 to 67.6 in 2000[3] (Table 3). Life expectancy in Bulgaria throughout the 1990s was similar to that of central European countries but better than the countries of the former Soviet Union. Mortality rates from chronic conditions such as ischaemic and cerebrovascular diseases have increased (strokes being six times the EU average), as have deaths from traumas. This pattern is associated with unhealthy lifestyles, unbalanced nutritional patterns, a worsening environment and increasing poverty. Rates of tobacco use have risen rapidly in recent decades with the proportion of smokers in the male population among the highest in Europe *(11)*. Consequently lung cancer rates are rising steeply among middle-aged males. In addition, some communicable diseases that were previously controlled, such as tuberculosis, have begun to rise.

Infant mortality rates, under-5 mortality rates and maternal mortality rates also worsened during the 1990s (Table 3). These rates are worse than in the central European countries but better than the countries of the former Soviet Union.

[3] Male life expectancy actually bottomed in 1995 and 1996 (at 67.1 years) and since then has shown a continuous though small improvement. Female life expectancy by contrast appears to have been more stable throughout the 1990s.

Abortions have exceeded the number of births since at least 1980 *(12)*, and Bulgaria has one of the highest abortion rates in Europe *(13)*. In 2000 the number of abortions was smaller than the number of births for the first time.

Table 3. Population health indicators

Indicators	1989	1995	1996	1997[b]	1998	1999	2000
Female life expectancy at birth[b]	75.1	74.9	74.6	74.4	74.4	74.6	74.6
Male life expectancy at birth[b]	68.6	67.1	67.1	67.2	67.2	67.3	67.6
SDR ischaemic heart disease 0–64, per 100 000 males[a d]	85.4	70.9	64.2	68.3	64.1	59.8	57.4
SDR cerebrovascular disease 0–64, per 100 000 males[a d]	63.7	56.5	53.8	57.1	56.4	49.6	50.6
Infant mortality (per 1000 live births)[b]	14.4	14.8	15.6	17.5	14.4	14.6	13.3
Under 5 mortality rate per 1000 live births[b]	18.3	19.0	19.8	18.1	15.3	15.1	15.0
Maternal mortality (per 100 000 live births)[b]	18.7	19.5	19.4[(â)]	18.7	15.2	23.0	17.6
Abortions per 100 live births[a]	118.0	135.0	137.0	137.0	122.0	110.0	77.0

Source: [a] WHO Regional Office for Europe health for all database *(4)*; [b] UNICEF TransMONEE database 3.0 *(5)*; [c] Ministry of Health health statistics *(14)*; [d] National Statistical Institute data *(10)*.
Note: for 1995–2000 the SDR is for the total population including male and female, NSI data.

Historical background

First half of the 20th century

Collectively funded health care services were introduced in Bulgaria at the end of the 19th century following independence from the Ottoman Empire. Between 1879 and 1903 health care laws were enacted and facilities built. District and municipal physicians were appointed from among the local private physicians for all towns with a population of more than 4000 people. Doctors' assistants (*feldshers*), based in villages, worked on a partly private basis too. Hygiene and sanitation improvements were made. State-funded free hospital care for the poor was established. Large state hospitals were built during the Russian–Turkish war, initially as military hospitals. The Bulgarian medical and dental associations were set up in 1901.

The first law on public health care was passed in 1903. Some private health facilities were constructed early in the century including hospitals, sanatoria and polyclinics. A social and health insurance scheme that integrated existing small funds was set up in 1923. All employees in government, public and private

enterprises and on farms were legally required to have compulsory insurance against accidents and illness, and to insure for maternity care and retirement pensions. This single fund was similar to the Bismarckian insurance system. New hospitals and sanatoria were constructed across the country. The Bulgarian Red Cross also offered a range of health services. The medical university of Sofia was founded in 1918 and became a centre for medical research.

In 1929, the People's Health Act was enacted. Responsibility for the maintenance of health facilities was passed from the state to the municipalities. Facilities for maternity care and for preventive care such as immunizations were developed along with school health care, health promotion and hygiene. A network of "domestic doctors" practised family medicine. The rural community gradually obtained better access to health care. Health insurance cover was widened, so that by 1948 nearly 70% of the population was covered, including all state employees. A Ministry of Health was created in 1944 to manage and coordinate the entire health care system that now consisted of a well-developed public sector and a smaller private sector.

From 1948 to 1990

In 1948, the communist administration began to replace the existing system with the Soviet "Semashko" health care model. Private hospitals and pharmacies were nationalized and brought under central state control. The health insurance system was abolished. Central government became the sole funder and provider of health care services. The Bulgarian Medical Association was abolished and replaced by a single trade union representing all health care workers. Training was increasingly centralized and postgraduate education taken over by the Ministry of Health. A network of health services was expanded, with health centres and maternity clinics built in the villages. The family doctor network was replaced by polyclinics, which were integrated with the hospitals. Primary health care was organized within a district (*rayon*) and patients allocated to polyclinic doctors according to their address.

From the 1950s, sanitary–epidemic stations were set up across the country. These public health services aimed to eradicate communicable diseases such as tuberculosis, malaria, typhoid and parasitic diseases. Extensive immunization was carried out, and dental services and a network of pharmacies developed. Improved access to health services and reductions in communicable diseases reduced infant mortality and increased life expectancy. Research institutes and hospital clinics were established in the main branches of medicine.

The 1960s and 1970s were characterized by the construction of new hospitals throughout the country and more doctors were trained after the establishment

of five new University medical schools. The 1973 People's Health Act set out the legal basis and principles for the health care system.

The Bulgarian health system achieved much during the communist period including the guarantee of free and accessible health care. A network of health services was established across the country and many communicable diseases were largely controlled. The inflexible and centrally controlled health system, however, lacked the capacity to respond to worsening indicators for chronic diseases, and contained few incentives for efficient provision of good quality health care. As the economy declined, the funds needed to sustain the health care system were not available and dema½nd exceeded the supply of services, although shortages were never officially acknowledged. Since the change of government in 1989, many of the elements of this model of health care had become thoroughly discredited in Bulgaria *(15).*

Organizational structure and management

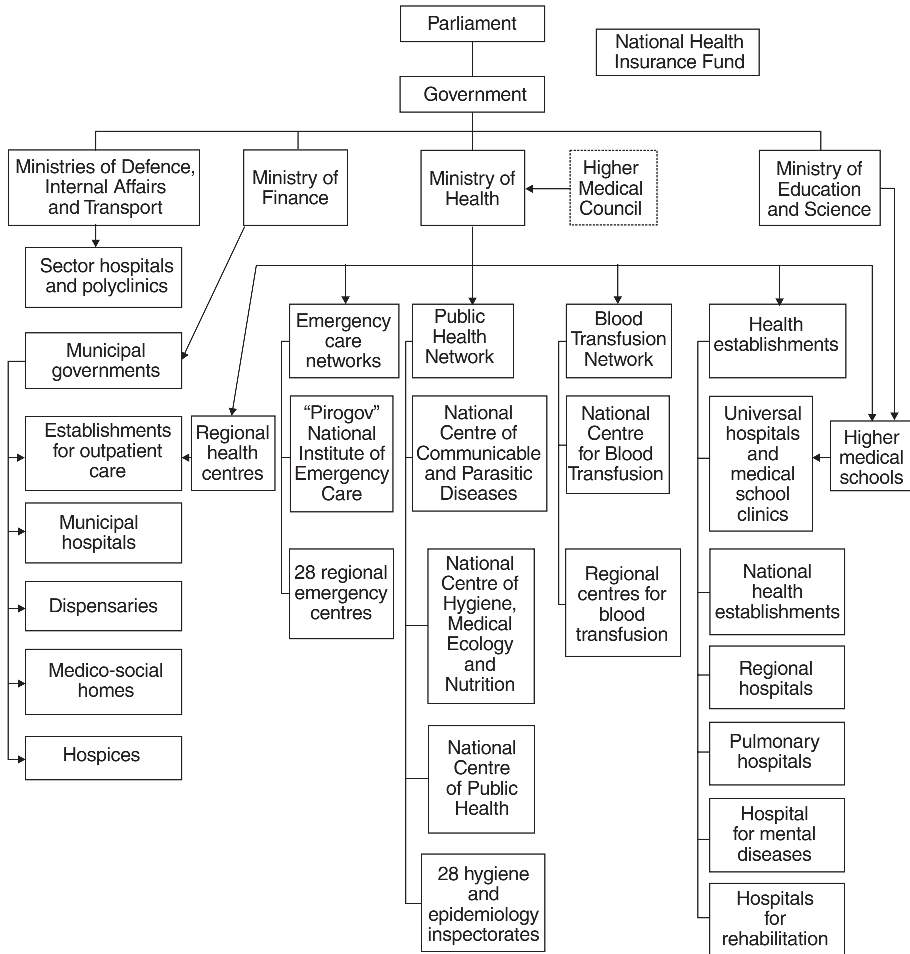
Organizational structure of the health care system

For the greater part of the 1990s the Bulgarian health care system was based mainly upon the Soviet Semashko model of public sector provision, tax-based financing, weighted towards hospital care, and with few incentives for providers to improve the effectiveness and efficiency of health care. Reforms in the early 1990s began by returning to some earlier traditions. First, laws were passed to allow private health care services; second, medical associations were re-established; and third, responsibility for many health care services was devolved to the municipalities. Far more radical reforms were initiated toward the end of the 1990s, involving the introduction of a system of social health insurance, development of primary health care based on a model of general practice, and rationalization of the health care delivery network. All these areas of reform have impacted upon the organizational structure of the health care system (Fig. 2).

The Ministry of Health

The Ministry of Health develops and implements national health policy, defines goals and priorities of the health system, works out national health programmes for improvement of the health status of the population, and develops draft legislation concerning the health sector. It retains responsibility for overall supervision of the health care system, also administered since 1995 by regional structures. Each of the 28 regions has a Regional Health Centre, an administrative office of the Ministry of Health, which carries out the ministry's health policy in the administrative regions of the country.

Fig. 2. Organizational structure of the health care system



The Ministry of Health is responsible for the emergency care network throughout the country, as well as the public health network consisting of several national centres and the State Sanitation and Anti-Epidemic Control (a network of 28 Hygiene and Epidemiology Inspectorates with headquarters in each of the country's 28 administrative centres).

The operational functions of the Ministry of Health include:

- analysis of epidemic situations and preparation of information for public relations;
- supervision of institutions under its control (the Regional Health Centres, Hygiene and Epidemiology Inspectorates, National Centres, health care

establishments) with respect to implementation and enforcement of legislation, development of guidelines concerning activities of health establishments, etc.;
- registration of private health care establishments and transformed health care establishments for inpatient care in accordance with Law on Care Health Establishments;[4]
- accreditation of health care establishments;[5]
- working out contracts and carrying out privatization procedures of pharmaceutical and health trading companies;[6]
- organization of tenders for central purchasing of life-supporting and life-saving pharmaceuticals, consumables, coordination and control of deliveries and distribution;
- registration of pharmaceutical producers, wholesalers and pharmacies;
- organization and control of maintenance and renovation activities of health establishments funded by the Ministry of Health;
- contracting for financing of health establishments and financial audit within the Ministry of Health;
- financing and payment of health establishments under its control;
- planning and supervision of ongoing structural reforms in the health sector;
- harmonization of health legislation with European norms in field of public health.

The Ministry currently owns and administers a number of national research centres. These include respectively the National Centres of Communicable and Parasitic Diseases; Hygiene, Medical Ecology and Nutrition; Public Health; Health Informatics, and Radiobiology. The national centres for tertiary care include 12 specialized university hospitals for acute care, 5 medical school hospitals,[7] and 7 National Centres (Oncology Cardiovascular Diseases, Physiotherapy and Rehabilitation, Sports Medicine, Emergency Care, Prostheses and Plastic Surgery, and the Clinical Hospital “Lozenec”).

The Ministry of Health governs and administers 32 regional multi-profile hospitals for acute care, and a number of regional specialized hospitals including 11 psychiatric hospitals, 12 hospitals for pulmonary diseases, and 18 specialized

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[4] The changes in legal status of health care institutions referred to here will be discussed in the sections *Health care delivery system* and *Health care reforms*.
[5] Whereas this is presently the responsibility of the Ministry of Health, there is some question whether the Ministry of Health or the National Health Insurance Fund (NHIF) will do this over the long run.
[6] This refers to all primary care institutions as well as diagnostic and other health care institutions following implementation of the 1999 Law on Health Care Establishments, involving their transformation into trading companies.

hospitals of rehabilitation from chronic diseases. In addition, the Ministry administers the Executive Agency on Pharmaceuticals, which registers medicines and drugs, and controls the national pharmaceutical market.

The regional structures of the Ministry of Health in the 28 administrative regions include 28 Regional Centres on Health Care, 28 Centres of Emergency Care which provide emergency care for the population and also have branches in the smaller towns, and 28 Hygiene-Epidemiological Inspection stations which support the implementation of national health policy at regional level.

The Ministry of Health coordinates activities with other ministries, the National Health Insurance Fund, Bulgarian Medical Association, Association of Dentists in Bulgaria and the Association of Pharmacists in Bulgaria.

Other ministries that collaborate with the Ministry of Health include the following:

Ministry of Finance
As the chief financing body in the country, the Ministry supervises financing of the health sector and contributes to identification of the aims and objectives of health policy and strategy. The Ministry of Finance is a party to the loans concluded for external financing in support of health reforms.

Ministry of Environment and Waters
This ministry has responsibility for all aspects of the environment and to ensure reliable protection against chemical, physical and biological pollution, as well as waste disposal. It collaborates with the Ministry of Health on concerns of a healthy environment.

Ministry of Education and Science
In the context of the National Health Policy and Strategy, the policy of this ministry is to provide schools and students with knowledge and skills necessary for the development of well-informed and independent judgement for the improvement of their health and safety. The introduction of modern health-education programmes in schools is to lay the foundations of new individual behaviour with respect to health and lifestyles, while the development of school sports will contribute to health promotion during school age and beyond.

[7] Before 2000 university hospitals were autonomous institutions that were also involved with teaching activities. Medical school hospitals, by contrast, were inpatient clinics which were under the administration of the respective medical school. With the reform of hospital care in 2000/2001 (following the 1999 Law on Health Care Establishments) all these inpatient clinics were registered as autonomous trade companies, under the same principles as the 12 university hospitals.

Ministry of Agriculture and Forests
The main tasks of this Ministry in compliance with the aims of the National Health policy are to:

- guarantee the safety of foods for mass consumption;
- guarantee the yields, processing and sale of milk and dairy products according to EU standards;
- carry out activities against diseases originating from domestic animals (tuberculosis, brucellosis, salmonella, etc.);
- carry out tests to detect risks from food additives and methods for their elimination.

Ministry of Communications and Transport
In connection with the high incidence of road accidents which cause numerous injuries, disability and death, the Ministry of Communications and Transport concentrates its efforts in three main areas:

- raising the level of public awareness for transportation safety
- devoting special attention to the most vulnerable in accidents: children and elderly
- implementation of road construction projects which are efficient and safe.

The Ministry of Communications and Transport, together with the Ministry of Internal Affairs, the Ministry of Education and Science and the Ministry of Health, will undertake a campaign for safety of children on the road under the slogan “Children and roads – how to reduce the danger of accidents.”

Ministry of Labour and Social Policy
The tasks of the Ministry of Labour and Social Policy include the organization, coordination and control of state policy in the following spheres:

- revenues and living standards
- social security
- protection in case of unemployment and promotion of employment
- labour market
- social assistance and social services
- social support and protection of children
- increased control over securing healthy and safe working conditions.

The Ministry of Labour and Social Policy, the Ministry of Health and the National Health Insurance Fund are obliged to ensure a smooth transition to

the new system of health insurance. This is being accomplished through the introduction of the health insurance system in a step-by-step fashion. In 2000, the health insurance system covered only outpatient care. Since 2001, coverage was extended to a part of hospital care. Every year the health insurance-financed portion of hospital expenditures is increased, reducing the amount of financing by the state and municipal budgets.

Higher Medical Council

This consultative body, chaired by the Minister of Health, has 24 members. Eight of the members are representatives of ministries (five from the Ministry of Health and one from each of the Ministries of Transport, Defence and Internal Affairs); eight from the doctors' and dentists' associations; and eight from the medical universities. The council meets at least four times a year and acts as a consultative body concerning health policy, the hospital network, medical education and postgraduate medical training. This Council is also responsible for registration of private health care facilities for ambulatory and hospital care.

The Council determines the main priorities of national health policy and medical aspects of demographic problems in the country. It provides opinions about draft laws and the legislative regulations of the Ministry of Health and advises on financial and investment policy, medical technologies' implementation and human resources planning and qualifications. It suggests criteria for quality assessment of diagnostic and preventive activities.

Municipalities

Municipal Councils and mayors are elected under the 1991 Local Self-Government Law. The ownership of many health care facilities has been transferred to municipalities. Partial responsibility for financing was transferred to the municipalities in 1991, and ownership of most facilities devolved in 1992. Health care facilities were recognized as legally constituted entities under amendments to the Health Law in 1997. At present, the municipalities own a large number of diagnostic and consultative centres, municipal hospitals for acute care, some specialized hospitals and outpatient clinics, all of which predominantly serve the needs of the respective municipality. In addition, municipalities are responsible for specialized paediatric and gynaecological hospitals and for specialized regional dispensaries (for pulmonary diseases, oncology, dermato-venereology, psychiatry and sports medicine).

Parallel health care services

A number of ministries (other than the Ministry of Health) own, manage and finance their own health care facilities. These are the Ministries of Defence (for the military and their families), Internal Affairs (for the police and their families) and Transport (for its employees and their families). Each of these has its own hospitals and polyclinics; for example the Ministry of Transport owns eight hospitals, the Ministry of Defence owns 14. These parallel health care systems are in the process of re-organization: the Ministry of Health recently absorbed their parallel hygiene and epidemiology services, while the number of hospitals owned by the Ministry of Defence has been reduced significantly.

Changes within the parallel sector have been strongly influenced by broader health care reform trends, such as hospital bed reduction which is common for all health establishments and transformation into trade companies (see section *Health care delivery system*). Yet they continue to be financed by the budget of the responsible ministries, which are the owners of the respective hospital institutions. Some hospitals (for example the Medical Academy of Defence) are open to the broader public but only for private patients or patients with diseases from clinical paths contracted with the National Health Insurance Fund.

Health Insurance Fund

The National Health Insurance Fund (NHIF) is an autonomous institution for compulsory health insurance that was established in accordance with Bulgarian legislation. The Health Insurance Law adopted by the Bulgarian parliament in 1998 introduced a Bismarckian type of health insurance system, with only one health insurance agency and mandatory health insurance payments deducted from personal income. Parliament decides the size of health insurance payments and each year determines the budget of the National Health Insurance Fund. The NHIF is the biggest purchaser of health care services, signing contracts with providers.

The main function of the NHIF is the management of financial resources for medical care of the population, with a view to the eventual total coverage of needs and guarantee of accessible, affordable and high-quality health care. Through its regional bodies, the Regional Health Insurance Funds (RHIFs), the NHIF finances the entire health care network for outpatient care, and since 1 July 2001 began to participate in the financing of those hospitals that have signed a contract with the Fund.[8]

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[8] As will be discussed in detail in the section *Main system of finance and coverage*, the National Health Insurance Fund currently funds only 20% of hospital expenditures, with the balance covered by budgetary financing.

Professional organizations

The Bulgarian Medical Association was re-established in 1990, as were professional associations of dentists and pharmacists. In 1998, the parliament adopted a Law of Professional Organizations of Physicians and Dentists giving legal status to these two organizations. These defend the rights and professional interests of their members and represent them in negotiations with the National Health Insurance Fund. They also participate in the development and endorsement of major legislative acts in the sphere of health care, proposed and adopted by Parliament. The two medical associations are parties to the National Framework Contract, which stipulates the conditions for provision and payment for health care in accordance with health insurance legislation. These organizations are responsible for continuing education and training of physicians and dentists, and exercise ethical and professional control for observing good medical practices and the ethical norms.

Organizations have also been formed to represent nurses, midwives and paramedical workers, although these have yet to exert much influence.

Universities

The medical universities, including Sofia, Varna and Plovdiv Medical Universities and the Medical Schools in Pleven and Stara Zagora, are largely autonomous institutions, coordinated jointly by the Ministry of Health and the Ministry of Education and Science. Until 1991, the Medical University in Sofia administered 12 university hospitals within the territory of Sofia, but subsequently retained only a supervisory role over their activities as the Ministry of Finance directly financed the hospitals. Since the beginning of 1999 curative care in university hospitals has been financed and administered by the Ministry of Health; the Ministry of Education and Science finances teaching activities in these hospitals.

Until the endorsement of the 1999 Law of Health Care Establishments, the rest of the Medical Schools administered and financed their clinics from allocated funding received from the Ministry of Health and the Ministry of Education and Science. There were separate funds for curative care and teaching activities. With enforcement of the provisions of the 1999 Law on Health Care Establishments in 2000–2001, the hospitals of medical schools became registered as hospitals for acute care with the legal status of clinics of trade companies (see footnote 7).

The private sector

Private practice has expanded dramatically since it was legalized in 1991 (having been banned in 1972). At present, private practice involves mainly dental offices and physicians' surgeries and consulting rooms, pharmacies, laboratories, and outpatient clinics and polyclinics. In addition there are about 18 inpatient health care establishments.

Following the introduction of the reform in outpatient care in 2000, many institutions (the single and group medical practices for primary care, outpatient medical practices for specialized outpatient care, medical and diagnostic–consultative centres, dental surgeries, laboratories, and consulting rooms for specialized care, etc.), started functioning as private entrepreneurs by signing contracts with the health insurance fund to provide medical care to the population. Support staff working for the private entrepreneurs are employed on a contract basis.

Before this reform, private doctors had to register with municipalities but were employed in the public sector and maintained a private practice using government facilities. Following the reform, all providers for outpatient care registered their practices in the Regional Health Centres of the Ministry of Health. Services in the private sector are paid for out-of-pocket by patients if the providers are not contracted with the National Health Insurance Fund (NHIF). Most of them (perhaps up to 95 %) now have contracts with the NHIF. Specialists working in the hospitals have fewer opportunities for private practice.

Physicians with private practices that were well established before the reform preferred to remain in private practice, because the fees from private patients are higher than those established by the NHIF. Additionally, due to the gatekeeper function of general practitioners which limits the number of visits to specialists, the income of specialists was reduced. No exact figures are available, but perhaps as few as 4–5% of outpatient doctors have no contracts with the NHIF. Doctors have been forced to sign contracts with the NHIF as the private market remains limited; most patients cannot afford to pay out-of pocket for medical care. Patients who choose to see a doctor privately do so mostly for specialists, less so for primary care physicians.

Most outpatient care, therefore, can now be considered as privately provided though publicly financed. Private hospitals involve only 6% of the total number of hospitals, and these concentrate only 0.5% of total bed numbers (2000 data). None of the private hospitals has contracts with the NHIF. The patient pays entirely for medical services in health care establishments that are not under contract with the NHIF.

All outpatient care providers act as entrepreneurs. The municipalities own the premises in outpatient care. At the start of the reform the municipalities provided buildings and equipment from the former polyclinics at very low rents to diagnostic and consultative centres and single and group practices for primary and specialized outpatient care. New modern equipment for primary health care was provided by a World Bank loan and transferred as ownership of the municipalities for general practitioners working in municipal facilities. Once a doctor retired or left the profession, the facilities and equipment were offered by the municipality to another general practitioner.

Since the introduction of the 1999 Law on Health Care Establishments, physicians and dentists own their single practices for primary and specialized medical and dental care. Group practices, medical centres, diagnostic–consultative centres, laboratories and hospices are established as companies, cooperatives, shareholding or limited liability companies by the state and the municipalities, either independently or jointly with other persons.

In addition to the system of mandatory health insurance, the law also provides an opportunity for additional insurance with private health insurance funds. About ten private health insurance funds have been registered in Bulgaria to date, as yet only few have been licensed. Voluntary health insurance need not be only supplementary, as private insurance companies may offer insurance for a full range of services, including those offered by statutory provision.

The voluntary sector

There are a number of non-governmental organizations in the health sector. These include organizations that existed during the communist period, such as those for the blind, the deaf and the disabled. In addition, a number of newer organizations have developed, representing people with multiple sclerosis, diabetes and cancer.

No other organized consumer groups as yet exist in Bulgaria. There is an association of nurses, but it is not an official association recognized by law as a partner in negotiation processes.

Planning, regulation and management

The Ministry of Health formulates policy, drafts legislation and plans programmes. Policy analysis capacity was supported by World Bank and Phare projects from 1996 to 1998. Other organizations are consulted on health

planning either through the Higher Medical Council or directly, such as the medical universities and the National Association of Hospitals. The 28 regional health centres of the Ministry of Health also collect health statistics information for the National Centre of Health Informatics. These regional health centres are to implement national policy at local level and ensure communication between local and central authorities.

The Ministry of Health produced a National Health Strategy that was adopted by Parliament in 1995. This broad policy document contained little detail on how plans might be implemented *(12)*. A new policy document of the Ministry of Health National Health Strategy “Better health for a better future of Bulgaria” and an action plan for implementation were developed with the support of WHO *(11)*. The two documents were adopted by a decision of the Council of Ministers in April 2001 and outline the key priorities in government health care policy for the next ten years, including measures for overcoming some negative tendencies and improving the health of the nation.

By law the Ministry of Health has the power to regulate all health care facilities in the country, even those owned by other ministries or local governments. However it does not exercise a great deal of control over these institutions. The health care system still suffers from insufficiently effective co-ordination between the central level and the regions, despite the existence of the 28 regional health centres.

The Ministry of Health drafts standards, regulations and indicators for the accreditation of inpatient health care establishments. A large number of hospitals (both public and private) were accredited in 2000 and 2001, as a means of rationalizing the hospital network. Accreditation was performed by the Accreditation Board, a commission consisting of persons with special training and a certificate of entitlement to participate in the process. The 1999 Law on Health Care Establishments also foresees accreditation for outpatient facilities that would become diagnostic and consultation centres with more than ten different specialties and possessing at least one medical laboratory as well as X-ray equipment. Accreditation is an ongoing process.

The Ministry of Health directly runs its national institutes and administers other services through 28 regional health centres, in cooperation with the municipalities (see Fig. 2). The municipalities, as the owners of most health facilities, have yet to develop a management capacity.

The 1999 Law on Health Care Institutions allowed health care institutions to convert into legally and financially self-governing entities with managerial autonomy. Most of these are now registered as trade companies, and have become autonomous and self-governing.

In 2001 the hospitals, too, were transformed into trade companies, though they still receive funding mainly from central or local budgets. In addition, as of 2001, they are also financed from the National Health Insurance Fund (see below), and private patients. Hospitals are only just beginning to develop financial autonomy, and it is very difficult to speak about results. Although legally free to manage their finances, at this first stage they are obliged to maintain salary levels commensurate with the public sector. They are permitted to hire staff, manage their finances, sign contracts with the NHIF, sign contracts for additional financing from donors, organize their services and establish inter-institutional rules, and to manage their overall activities. However, lack of administrative and managerial experience has led to difficulties among which is the accumulation of large debts, posing serious problems in regulation and administration of the inpatient sector.

The NHIF has introduced new planning, regulatory and hospital payment mechanisms. According to the 2002 National Framework Contract, more than 450 diagnoses grouped in 40 clinical paths are being paid through this fund.

The respective powers of the various bodies in the system, including the extent of central regulation by the Ministry of Health, the degree of autonomy of the self-governing health facilities and of the NHIF, and the extent of municipalities' responsibility for the health of their population, have all been considered and defined in principle. In practice there are serious difficulties, arising from limited funds and lack of managerial experience, which do not allow the health institutions to manage their finances effectively and to coordinate smoothly the activities of the various agencies. The regional health insurance funds (RHIFs) are empowered to select providers on the basis of price and quality, but in practice lack both capacity and experience to base selection on these grounds, and so contract with all providers regardless.

The State has reserved the right to control the entire health insurance system. Toward this purpose, a Directorate for Specialized Health Insurance Supervision was established within the Ministry of Health, also responsible for control of the voluntary health insurance companies. A State Agency for Social Supervision was founded with a view to licensing private health and retirement insurance companies.

The National Health Insurance Fund (NHIF) exercises medical and financial control over medical care providers. Immediate medical and financial scrutiny of those who implement the contracts is carried out by officials at the NHIF and Regional Health Insurance Funds by medical auditors and financial inspectors. Medical auditors have the right to check compliance with the rules for good medical practice, type and volume of medical care provided according to hospital packages, and the correlation between the medical care provided

and sums paid. Financial inspectors control the implementation of the financial part of the contracts, accounting documentation and reports of health care establishments. Medical and financial control is carried out in the form of planned and surprise inspections, inspections prompted by signals or complaints, and upon termination of a contract with a provider of health care before the expiration of the contracted term.

This process of medical and financial control differs from the accreditation process discussed earlier, which is carried out by the Accreditation Board. The accreditation evaluation is provided for a period of one to five years, depending on the decision of the Accreditation Board. By contrast, the medical and financial audit performed by NHIF inspectors is intended to be used as the basis for contracted medical services

While the system is operating, there are problems in building capacity and training auditors to be effective. The National Framework Contract contains the rules and requirements for health care providers and the activities that should be performed by auditors. In the National Health Insurance Fund and its regional branches there are special departments for medical and financial audit. However, there remain some serious questions as to their effectiveness at this early stage of implementation of the health insurance system.

The Ministry of Health exercises control over the production, trade, storage and use of narcotic substances. A specialized service on narcotics was set up within the Ministry.

There are many problems concerning planning, regulation and management of the health care system. Radical changes have been undertaken in the methods of planning and regulation without the management expertise necessary to allow the changes to proceed smoothly.

Decentralization of the health care system

The Bulgarian health care system was highly centralized and some decentralization has taken place since 1991. First, ownership of most health care facilities was devolved to locally elected municipalities from 1992. Following a 1997 amendment to the Law on Health, health facilities can become independent juridical entities. Second, the Ministry of Health decentralized much administration to the 28 regional health centres in 1995, allowing a flatter management structure. Third, there has been extensive privatization of pharmacies and physicians' practices. Also, since 1991 the previously monopolistic State Pharmaceutical Company has been transformed into 28 separate state-owned companies, with the split performed on a geographical

basis. More than 70% of their ownership is private. The Ministry of Health retains central control of national-level institutions and regional hospitals.

Some responsibility for monitoring standards has been delegated to professional associations in the Law of Professional Organizations. These organizations are responsible for observing professional ethics and rules for good medical practice, and for continuing medical education. They also participate in the preparation of the National Framework Contract under the 1998 Health Insurance Law, considered the main financial tool for financing medical care in Bulgaria.

Since July 2000 the health insurance scheme has provided the means to decentralize management through contracts between the regional health insurance funds and health care providers.

Further, health establishments have been granted financial and managerial autonomy under the 1999 Law on Health Care Establishments that transformed the health care delivery system.[9]

[9] For more information see the sections *Health care delivery system* and *Reform implementation*.

Health care financing and expenditure

Main system of financing and coverage

Until 2000 the health care system was financed mainly from general taxation from two main sources: the republican and municipal budgets respectively. In addition, health care financing includes a private, out-of-pocket component, a significant portion of which involves under-the-table payments.

Following the enactment of health insurance legislation in 1998, social insurance contributions (split between employer and employee) began to be deducted by employers in 1999. The amount of revenue collected initially was limited by the low tax base (given low incomes and high unemployment) and tax evasion. In 2000 the National Health Insurance Fund (NHIF) covered 13% of all public health care expenditures (see Table 4). It is expected that the state and municipal budgets' share of total public financing will gradually decrease over the years as the NHIF assumes an increasingly important financing role.

The health insurance contribution was set at 6% of income; employer and employee initially sharing the contribution in the proportion of 5:1. The participation of the employer is to decrease in subsequent years, by 2007 the proportion will be 1:1. Self-employed persons pay the entire contribution. Working members of families insure non-working members by paying an extra contribution for them. Contributions for the unemployed and poor, pensioners, students, solders, civil servants and some other vulnerable categories are covered by central and local budgets.

The system of health insurance is compulsory for the entire population. In practice there are some marginal social groups such as Romas, other minorities, the permanently unemployed, etc., who are excluded from the system.

According to a population survey undertaken at the end of 2001 *(16)*, there was actually a 10% decrease of population coverage between 2000 and 2001, mainly attributable to lower participation by these minority groups. Of the respondents in the 2001 survey, 76% were insured with the National Health Insurance Fund, 18% were not insured, and 6% did not know. However, entitlement to statutory health care is by virtue of citizenship (rather than payment of contributions). Therefore, in practice, even those who have no coverage are still entitled to receive outpatient and inpatient care.

Social health insurance financing of outpatient care began in July 2000, inpatient care (though only partially) in July 2001. Currently health insurance revenues cover outpatient care, part of pharmaceuticals for outpatient care and about 20% of inpatient expenditure. It is planned that full coverage of inpatient care will be phased in over a five-year period as the finances of the NHIF improve. The Ministry of Health, the Ministry of Finance and the NHIF are responsible for coordinating the financing of health care so as to prevent shocks for the hospital sector.

The collection of contributions has improved since the inception of the system and was over 94% for 2000. However, despite plans to extend coverage of all services by social health insurance, contribution rates of 6% are acknowledged to be insufficient to cover health care expenditure. During the planning phase of social health insurance, Bulgarian and foreign experts estimated the necessary health insurance contribution to be 12% of income. In view of the difficult economic situation, and the simultaneous introduction of social insurance reform involving additional contributions, the government decided against imposing such a high tax burden and opted instead for the much lower 6% contribution rate (separate from the social insurance contribution). At present, any decision to change the contribution rate can be made by Parliament alone. There are no plans to increase the contribution rate, at least in the near term.

The state retains responsibility for the financing of medical education, emergency health care, state sanitary control, blood transfusions, the national health and prevention programmes, medical research, etc.

The 1991 Constitution of the Republic of Bulgaria guarantees the right to health care to the entire population. The 1973 People’s Health Law (amended 1997–1998) states that “All Bulgarian citizens shall be entitled to access to medical service and to health insurance” (Article 2.1 of amended legislation). Although the health care system has aimed to provide free comprehensive health care, in practice during the last decade patients have increasingly paid out-of-pocket for many health care services.

Health care benefits and rationing

The National Health Insurance Fund (NHIF) guarantees the financing of a basic package of health care services whose scope and volume is subject to annual agreements signed with the organizations of the medical profession. The NHIF defines the list of services it will cover, agreed by the providers of medical services. A basic package of services was developed for primary health care, as were packages for each clinical specialty for outpatient care, and for 40 clinical paths of inpatient care, covering over 450 diagnoses for 2002. The packages of services provided are agreed upon between NHIF and the professional organizations of physicians and dentists as part of the National Framework Contract. The National Framework Contract also endorses the continually updated list of free or partially free medicines mainly for patients with chronic diseases (otherwise pharmaceuticals are fully paid for out-of-pocket, as under the previous regime). Some social groups (children, pregnant women and breastfeeding mothers, some socially disadvantaged ethnic groups, etc.) are included within a special health insurance policy, and the NHIF has developed special programmes for them.

Users pay for services not included in the packages. These can be paid for by voluntary (private) health insurance provided by private shareholding companies for additional health insurance. Citizens have the right to purchase packages of additional services from the private health insurance funds, thus guaranteeing a mixed system of public-private financing. In addition they are entitled to purchase packages offering a full range of health care services.

The basic package for primary health care contains the following services:

- ambulatory care (examination)
- surveillance, home visits, consultations
- health promotion and health prophylactics
- immunizations
- referrals for medical and diagnostic tests
- prescription of drugs, etc.

For the performance of services included in the basic package, general practitioners are paid by capitation on the basis of the number of patients on their list. In addition to the basic package of services general practitioners participate in special health programmes, called Management of Health Priorities, including:

- maternal and infant health care
- adolescent health care

- health care for chronic diseases (diabetes, cardiovascular diseases, etc.)
- care for elderly persons
- health care for terminally ill.

These activities are not obligatory for a general practitioner, but additional remuneration for performing these interventions encourages general practitioners to provide such additional preventive and other services.

Complementary sources of financing

Table 4 shows the relative contributions of various sources of public financing. It can be seen that the national and municipal budgets provide the bulk of financing, with social health insurance providing 13% in 2000. Comprehensive information is not available on all sources of health care revenue. For example, foreign assistance is substantial, as set out later. Private out-of-pocket payments are also substantial, accounting for perhaps over 20% of health care revenue *(17)*. The World Health Report 2000 *(18)* estimates these to have been 18.1% of total health care expenditure in 1997. Using this figure as a proxy for private spending, the figures in Table 4 can be recalculated as shown in Table 5.

Table 4. Main sources of financing (%)

Source of financing	1989	1994	1996	1998	1999	2000
Public	–	98.0	–	–	–	–
National budget	100.0	33.0	40.0	45.0	38.5	42.0
Municipal budgets	–	65.0	60.0	55.0	51.4	42.3
Statutory insurance	–	–	–	–	9.9	13.0
Private						
Out-of-pocket	–	0.5	–	–	–	–
Private insurance	–	–	–	–	0.1	–
Other charges[a]	–	1.5	–	–	–	2.7
External						
Foreign assistance	–	–	–	–	–	–

Source: Ministry of Health 1995 ; Ministry of Finance *(7).*

Note: [a] Other charges refer to non-budgetary financial resources of health establishments.

Table 5. Main sources of finance (%) using World Health Report 2000 estimates of out-of-pocket spending

Source of financing	2000
Public	
National budget	34.5
Municipal budgets	34.7
Statutory insurance	10.7
Private	
Out-of-pocket	18.0
Other charges	2.2

Source: Table 4; World Health Report 2000 *(18)*.

It should be borne in mind that this table is also incomplete, as it does not include financing through private insurance and foreign assistance.

Out-of-pocket payments

As in other central and eastern European countries, informal payments by patients for health care services were common in Bulgaria during the 1980s, although not officially sanctioned by the communist authorities. Such payments became increasingly common during the 1990s. In a survey conducted in Bulgaria in 1994 among 1000 respondents, 43% reported having paid cash for officially free services in a state medical facility in the preceding two years *(17)*. A survey in Sofia in 1999 found that 54% had made informal payments for state services *(19)*. Unofficial payments (under-the-table payments) are widespread in order to gain access to high quality services in hospitals and for a wide variety of outpatient services. Sometimes patients have to buy drugs themselves when they are hospitalized. Nearly two thirds of respondents were in favour of the introduction of a range of official user fees. Luxury services while in hospital (such as single rooms and TV sets) have always incurred charges. People (except children and some other categories of patients) always were charged for outpatient pharmaceuticals. Patients also pay for balneotherapy, many stomatological services, cosmetic surgery, abortions, infertility treatment and eyeglasses.

The scope of these payments and their importance to the reduced health sector budget led the government gradually to introduce health service fees in 1994, despite concerns about their regressive nature. A 1997 ordinance on medical co-payments (number 22) further established a legal basis for cost sharing. Co-payment was introduced for medical services, though only for outpatient or inpatient services without referrals and some luxury services.

The Ministry of Health developed (in 1997 and 1999) uniform tariffs for paid services, mandatory for public health care institutions. Since 2001, medical establishments have been developing their own price lists for paid services without a physician's referral (when the patients can make their personal choice of a doctor).

Ambulatory health care patients have always paid for their own pharmaceuticals but these have become much more expensive with market liberalization and foreign imports of drugs.

The 1998 Health Insurance Law also defines co-payment fees for visits to physicians and dentists and for inpatient care. These apply to all patients, with the exception of certain vulnerable people (children, unemployed, disadvantaged groups, etc.) and patients suffering from certain diseases defined in the National Framework Contract. These user fees were first implemented with the introduction of health insurance financing of services, and amount to 1% of the minimum monthly wage per visit in outpatient centres and 2% of the minimum wage per day of hospitalization (not exceeding 20 days). These co-payments vary according to the minimum wage in the country, which is changed once or twice a year (In 2001 the minimum wage was set at 100 leva per month.) The co-payment is expected to be a means of restricting unnecessary demand for health care as well as additional income for the system.

Patients must also pay for luxury services such as a single room, TV, better food, etc., for plastic surgery and other services not included in the basic package of services. There are no reliable estimates, however, of the extent of out-of-pocket payments for health care, the size of their contribution to total health care revenue, or whether under the table payments are still widespread. Toward the late 1990s, the largest share of private payments was for drugs, followed by dental care, then informal payments. Patients' direct payments for paid services constituted the smallest share *(19).*

Voluntary health insurance

Voluntary health insurance has been limited in Bulgaria, so far taken out only by high-income groups. Under the Health Insurance Law (1998), voluntary health insurance can provide extra insurance (to be 'bought') on a voluntary basis by any individual. Beyond the basic package, citizens are free to buy different insurance packages on the market. Private insurance may also cover those services included in the basic package and negotiated by the National Framework Contract. Voluntary health insurance funds are also legally entitled to own hospitals and pharmacies.

The private health insurance companies offer health care services for protection, early detection, treatment and rehabilitation of insured individuals

against a paid premium. Voluntary health insurance includes packages of medical services chosen by the insured individual and agreed upon with the company. According to the requirements of the Health Insurance Law, medical services are divided into five packages:

- improvement of health and disease prevention
- outpatient health care
- inpatient health care
- health supporting social activities
- reimbursement of costs.

Each of these provides the opportunity for a flexible choice of the preferred range of medical services. Only one company currently offers additional voluntary health insurance guaranteeing the necessary volume, quality and continuity of health care by highly qualified specialists: professors, associate professors, heads of clinics and wards at national and regional levels. A second fund was licensed in 2001 and three more in 2003.

There is extremely limited demand for supplementary insurance due to the financial situation of the bulk of the population. Those who can afford it prefer to pay cash for health services received. For the moment the private health insurance funds conclude contracts mainly with employers for the provision of health services for their employees. Personal plans are rarely used, the uptake estimated at 1–2% of population. There is no available information on uptake by firms.

Other sources of funding

Until 1999, hospitals were tapping additional sources of funding by charging for extra services such as a more comfortable room. This fee was directed into an extra-budgetary account, which the hospital director was able to use for a number of purposes. The 1999 State Budget Law forbids extra-budgetary revenue so health facilities cannot now divert funds into accounts kept separate from general operating revenue.

Voluntary charitable donations by individuals, firms and foundations are also made, usually to hospitals, but these amounts contribute only a small amount of the revenue of the health system.

Foreign assistance is substantial, and includes World Bank loans and European Union programmes such as PHARE, Tempus and Interreg. Bulgaria has received €40.5 million assistance to the health care sector. The major areas of support under the PHARE programme are:

- emergency health care – 28 regional centres established, staffed with medical and paramedical personnel and equipped with ambulances;
- training physicians in the primary health care network – over 1600 physicians trained in two-month courses in General Medicine at four regional training centres;
- improving university education in General Medicine – chairs established in the five medical universities; teachers trained and documentation centres set up;
- supporting introduction of private medical practice – proper legislation, accreditation, quality and fiscal aspects developed;
- training hospital management staff – over 350 directors and chief nurses trained in two-week re-qualification management courses. 28 people obtained two-year diploma;
- training leading administrative personnel – Ministry of Health and local authority staff trained in health economics, organization and computing. Health Economics and Policy Analysis Unit created within the Ministry of Health;
- introducing public health specialists – eight people sent to European Union countries for two-month training courses in health promotion, health legislation, medical ethics, environmental preservation, epidemiology and medical statistics. Guidelines produced for introducing public health to undergraduate training of medical students;
- training nurses in health care management – faculty created at Sofia Medical University (first students admitted in 1995). Courses following European programmes held for chief nurses, carried out by European trainers;
- national Family Planning Programme – cooperation established between government and nongovernment organizations. 30 family planning information centres set up;
- improving system of occupational health and workers' health care – national policy for safety and health at work approved and draft law prepared;
- restructuring pharmaceutical sector and introducing a new drug policy – National Inspectorate established. Independent quarterly bulletin distributed free to 2500 clinicians. Drug Policy Department set up within Ministry of Health;
- supporting creation of health insurance system – the first part of the project devised a methodology for financing hospital resources, which is now applied to 11 pilot hospitals, in support of the introduction of health insurance system;

- supporting medical libraries – the five medical universities' libraries now function with automated catalogues and databases. Computer network links libraries to Academic Telecommunications Network. In 1994–1996 libraries subscribed to 747 medical journals, 1182 medical books supplied;
- developing Local Youth Health Education project in collaboration with the English Health Education Authority.

The Tempus programme has included several public health workshops and short courses in Bulgaria, masters' degree scholarships, staff development visits, and textbook translations.

A US $47 million fund loan agreement to finance a health sector restructuring project was ratified in Bulgaria in 1996. This was funded by the World Bank (US $26 million), Council of Europe Social Fund (US $11 million), European Union Phare programme (US $2.3 million). The remaining US $7.7 million came from the Bulgarian government. The project lasted until 2001, managed and coordinated by the Ministry of Health. The project has four components, which made investments in the following activities:

- health policy and management: assistance for training administrative specialists, building analytical capacity of Ministry of Health and health care system in health care policy, economics and management;
- primary health care: medical equipment purchased for rural general practices (predominantly in remote, rather inaccessible and unattractive regions of the country), repair and upgrading of practices and training medical personnel in primary care: 750 nurses, 1071 general practitioners;
- emergency health care: ambulances and equipment purchased for emergency health care centres, repair and upgrading of regional and municipal centres for emergency health care and admissions rooms. Training provided for physicians, nurses and drivers working within the system;
- haemotransfusiology: facilities of haematology and transfusiology network upgraded construction and repair of five regional blood transfusion centres in cities of Sofia, Plovdiv, Stara Zagora, Varna and Pleven, and at the National Haemotransfusiology Centre in Sofia. Purchased high-quality medical equipment for processing and storing blood and blood products as well as vehicles for the needs of the system. Currently developing information system of haemotransfusiology.

In 2000, the World Bank approved a second loan of US $87 million to support: the introduction of health reform in Bulgaria, building an information system for the health insurance system, and financial assistance of outpatient and inpatient care. The new project is a follow-up to the first World Bank loan,

and will be used to provide equipment for primary and outpatient care, and information systems for linking practising physicians and for inpatient care. There will also be finance for an investment programme for securing low-interest credit for hospitals investing in new equipment and devices. The National Health Insurance Fund will be assisted in constructing the technological infrastructure needed for the health insurance system, providing hardware and software systems, as well as training and technical assistance for their function and maintenance.

Nine approved international projects aimed at improving the administrative and information capacity of the health insurance system, human resources development, training of personnel, etc. were implemented. These include the United States Agency for International Development (USAID) project and the German Government-sponsored TRANSFORM programme.

The World Health Organization provides constant technical assistance through its Liaison Office. This has been focused on securing consultancy help in priority spheres, such as the development of health policy and health reform; the health of children and women; infectious diseases; non-infectious diseases; health promotion and environment and health.

The Spanish Agency for International Cooperation is assisting the Ministry of Health and NHIF in training leading medical specialists in the foundations of hospital management under the conditions of fund financing, and helping the Ministry of Health in its work with the media. A project for training personnel in hospital management at a multi-profile hospital in Sofia was implemented with the financial support of the Agency.

Implementation of two projects financed by UNDP is under way: Promotion of the National Programme on Reproductive Health, and Development of a Strategic Plan on HIV/AIDS. A strategy was developed aimed at the implementation of a policy directed at the restriction and control of the spread of HIV/AIDS and of sexually transmitted diseases. The Strategy served as the basis for the development of a National Programme for Prevention and Control of AIDS and STDs. There are plans further to develop and implement the National Programme on Reproductive Health with a view to improving the quality and accessibility of the services for reproductive health, as well as public awareness of the population in Bulgaria, with special attention to children and women.

A large number of specializations for Bulgarian physicians was foreseen along the lines of the Japanese International Cooperation Agency and high-tech Japanese equipment was supplied to 17 Bulgarian hospitals upon Bulgarian

request.

The Swiss government and the Swiss Red Cross financed the modernization of sterilization equipment in 13 hospitals in the country, as well as the training of personnel in these hospitals.

The EU-financed Interreg II Project for trans-border cooperation with Greece in the field of public health is being implemented.

An information system entitled Environment and Health and Infectious Diseases is being built within the framework of a joint project of WHO, the European Centre for Environment and Health and the Bulgarian Ministry of Health. Computers and basic software have been purchased, and applied software developed.

Health care expenditure

Health expenditure in Bulgaria as a percentage of GDP dropped from a high of 5.4% in 1991 to a low of 3.2% in 1996, rising to 4.2% in 1999 to drop again to 3.6% in 2000 (Table 6). These figures include only public health expenditures. The share of the health sector in total government expenditure fluctuated substantially during the 1990s, but on the whole increased relative to the low of 6.5% in 1990. This share stood at 11% and 9.3% of total government expenditure in 1998 and 1999 respectively (Table 6). If estimates of private spending are included, total health care expenditure as a share of GDP is roughly 4.4-5.1%.[10] According to Fig. 3 and Fig. 4 showing GDP shares in countries of the European Region, this figure is a little below the CEE average of 5.9% but substantially below the EU average of 8.7% (2000 figures).[11]

The reasons for the overall drop in public health care expenditures as % of GDP reflect both the economic difficulties of the 1990s and the relatively low priority attached to spending on health care by central and municipal government. In part, cuts in municipal budget have meant less finance for health services throughout the 1990s. Health insurance, introduced in 1999, was associated with an initial increase in total health expenditures as % of GDP, but this appears to have been accompanied by correspondingly greater drops in budgetary spending in later years.

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[10] There are no official data on private health care expenditures, and difficulties in estimating these are compounded by the widespread underground payments which are exceedingly difficult to calculate. According to the WHO World Health Report 2000, Bulgaria's private share in total health care expenditures stood at 18.1% in 1997.

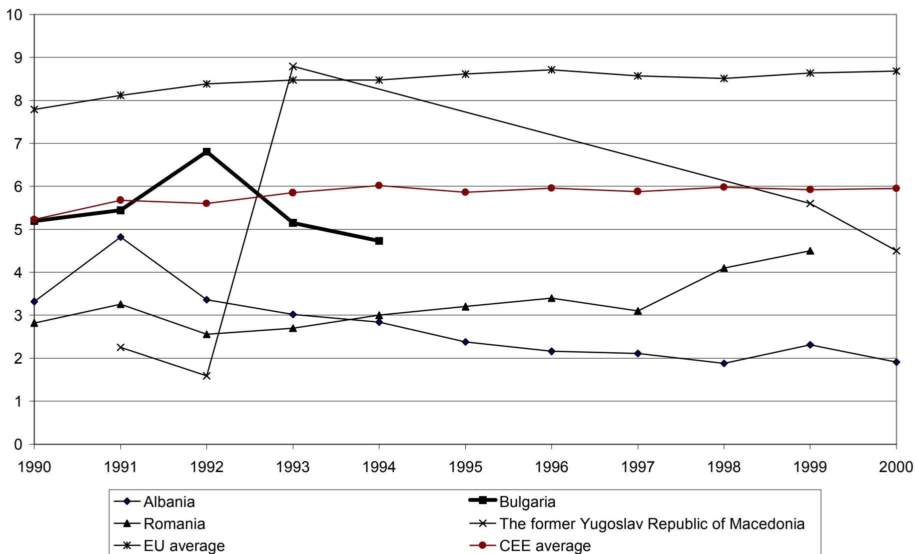
[11] It will be noted that the WHO health for all database, on which Fig. 3 and Fig. 4 are based, does not contain data for Bulgaria beyond 1994. Therefore these comparisons can only provide very rough indications of relative magnitudes.

Table 6. Trends in health care expenditure, 1990–2000

Total on health care	1991	1995	1996	1997	1998	1999	2000
Value in current prices (million Leva)[b]	5 720	31 842	53 814	599 088	810 336	933 178	977 686
Value in current prices per capita	–	56	37	43	56	62[e]	53[e]
Real government health budget as % 1990 budget[d]	71	47	35	26	41	–	–
Share of GDP (%)[c]	5.4	3.7	3.2	3.5	3.8	4.2[e]	3.6[e]
Share of total government expenditure[b]	7.6	9.4	7.1	10.0[â]	11[â]	9.28	–

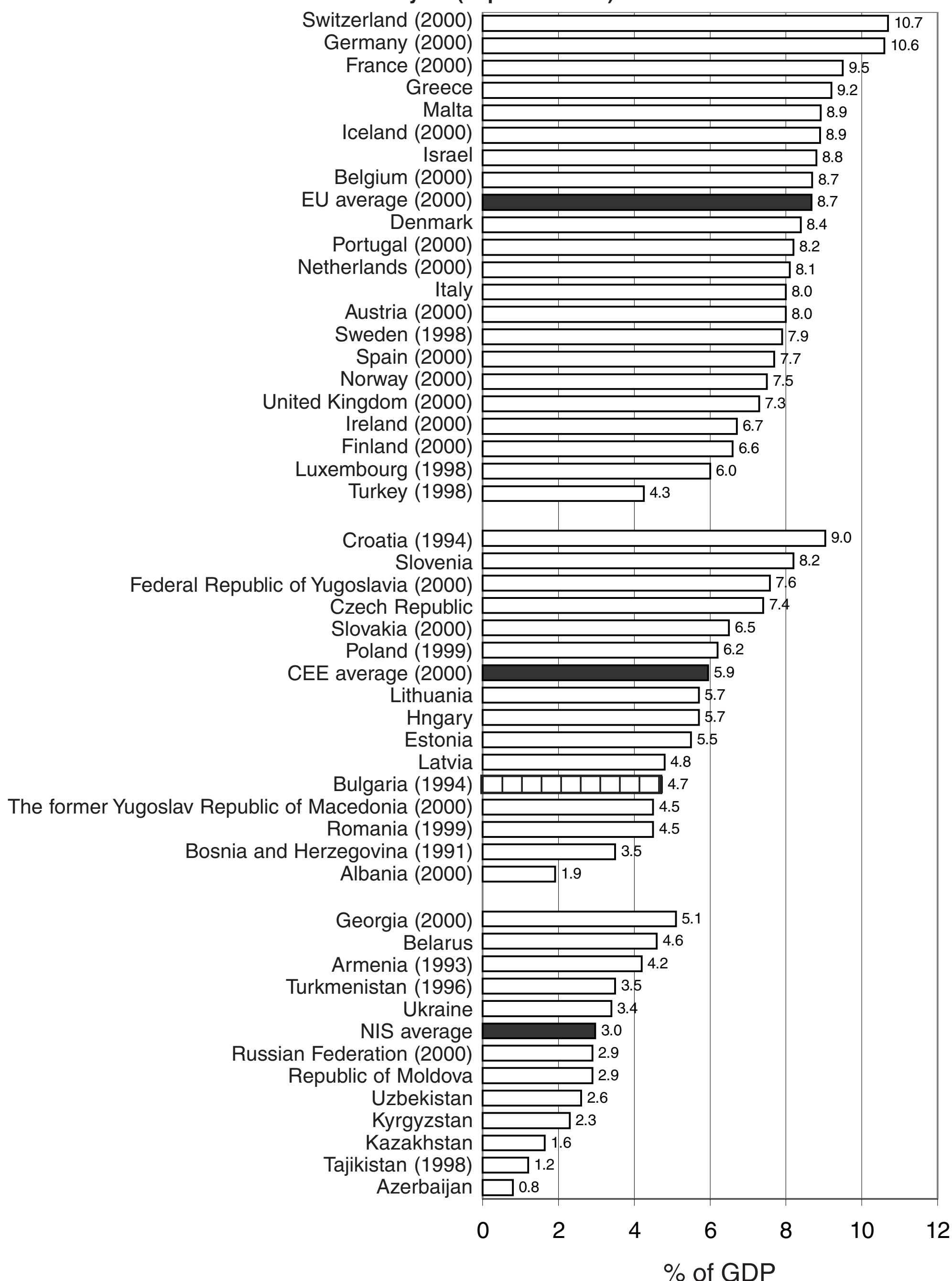
Source: [a] WHO Regional Office for Europe health for all database *(4)*; [b] UNICEF TransMONEE database 3.0 *(5)*; [c] Ministry of Finance *(7)*; [d] Delcheva, Balabanova and McKee *(17)*; [e] National Health Insurance Fund *(20)*.

Fig. 3. Health care expenditure as a share of GDP (%) in Bulgaria and selected countries, 1990–2000



In real terms, the size of the government's annual health budget has declined continuously since 1990, dropping to lows of just one third (1996) and one fourth (1997) of 1990 levels. These years correspond to the lows of public

Fig. 4. Total expenditure on health as a % of GDP in the WHO European Region, 2001 or latest available year (in parentheses)



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

Notes: CEE: central and eastern Europe; EU: European Union; NIS: newly independent states.

expenditure as a share of GDP.

Fig. 5 permits a very rough comparison of health care expenditure in US $ PPP between Bulgaria and other countries.[12] Quite clearly, Bulgarian per capita health care expenditure ranges at the low end of central European countries.

Structure of health care expenditures

In 2000 the Ministry of Health distributed 292 million leva (about 30% of total health care expenditure) for the financing of health and health care establishments; 92% of this represented current costs. The Ministry of Health finances national centres, university hospitals, specialized establishments, as well as national health programmes. Life-saving consumables for haemodialysis, cardiology, radioisotope diagnosis and other activities, as well as free life-saving drugs for cancer patients and those with other severe diseases, are also secured out of the budget of the Ministry of Health.

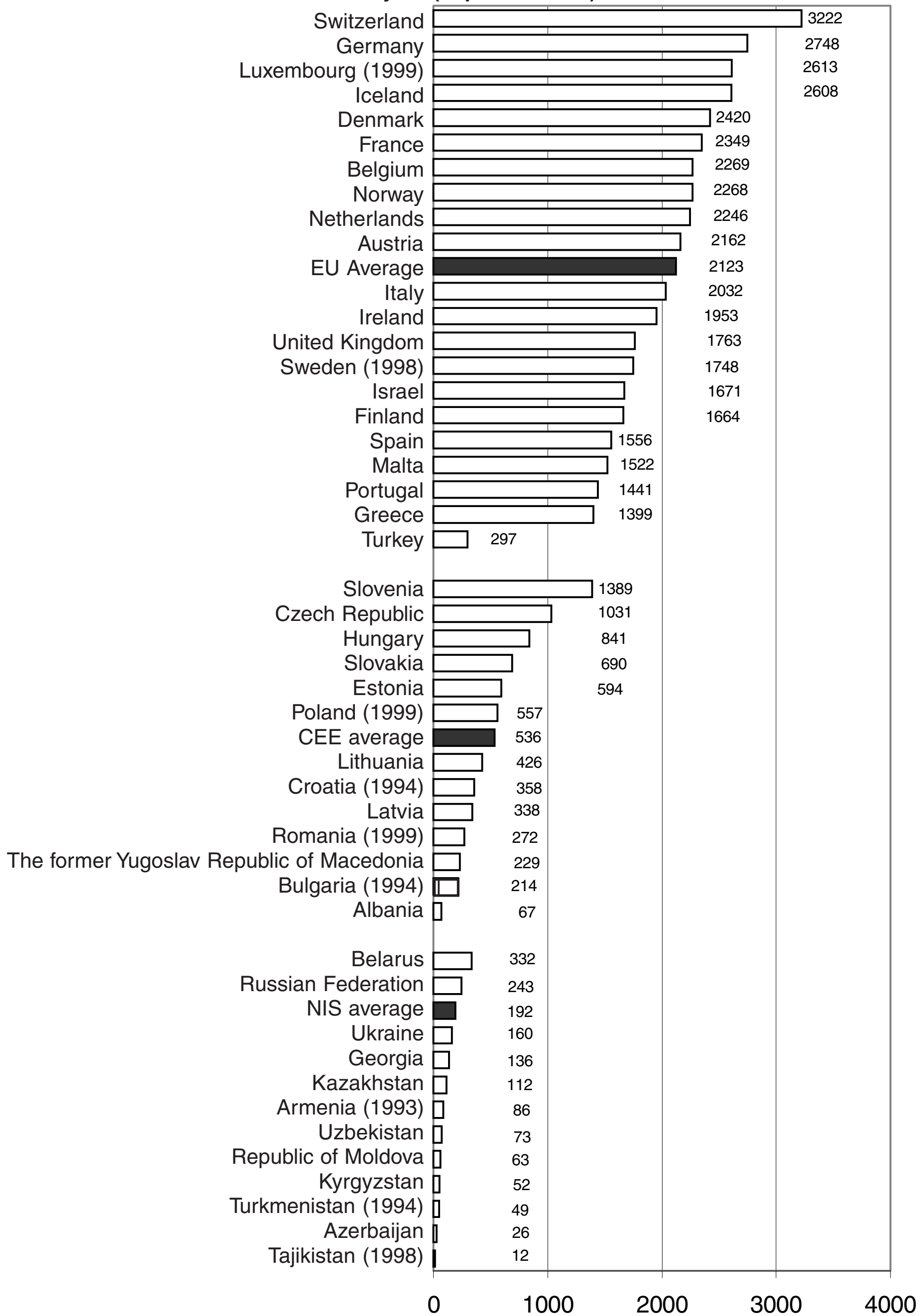
In 2000 the National Health Insurance Fund spent 126 million leva on outpatient care. 30% was directed to primary health care, about 20% on specialized outpatient care, about 10% on dental care and about 30% on pharmaceuticals. Extra costs were incurred for additional activities in compliance with the management of health priorities.[13]

As a proportion of government health care spending pharmaceutical expenditure has nearly doubled, from 12.3% in 1990 to 23.75% in 1998 (Table 7). Pharmaceutical costs rose dramatically with the rise in prices and especially with the influx of expensive foreign drugs. The pharmaceutical share of health expenditure is an underestimate since this reflects only government expenditure. Consumers also contribute a substantial amount; for example ambulatory care patients pay for their own drugs.

Constraints on the health budget have also meant a lower allocation for capital investment, which dropped to extremely low levels for most of the 1990s (Table 7). The share of capital costs was particularly low in 1995 and 1996, but rose to much higher levels in 1999 and 2000 (12.2% and 8.3% respectively). Technology renewal is a major problem since more than three quarters of medical equipment in Bulgaria is said to be over 20 years old *(11)*. The 1999 and 2000 increases in financing provided the opportunity to purchase badly needed medical equipment, as well as general refurbishment of health care establishments, in accordance with the investment programme adopted by the government. Many additional investments are secured under the two

[12] Here, too, it will be noted that the figure shown for Bulgaria is for 1994.
[13] A breakdown of expenditures at the municipal level is not available.

Fig. 5. Health care expenditure in US $PPP per capita in the WHO European Region, 2000 or latest available year (in parentheses)



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

Notes: CEE: central and eastern Europe; EU: European Union; NIS: newly independent states.

World Bank Credits and international projects.

Inpatient care absorbs about 60% of the government budget despite attempts to shift priority to primary health care during the last several years.

Salary costs for most years are below 50% of the government health budget as wages have been held down *(11)*.

Table 7. Health care expenditure by categories (as % of government expenditure on health care) 1990–2000

Total expenditure on:	1990	1995	1996	1997	1998	1999[c]	2000[c]
Inpatient care (%)[a]	–	59	–	–	–	–	–
Pharmaceuticals (% health expenditure)[b]	12.3	17.4	23.5	23.4	23.75	20.3	14.4
Capital investment (% health expenditure)[b]	5.8	3.4	2.3	6.8	4.4	12.2	8.3
Salaries & social insurance (% health expenditure)[b]	56.9	50.6	45.3	42.6	50.49	44.7	32.4

Source: [a] WHO Regional Office for Europe health for all database *(4)*; [b] Ministry of Health; [c] National Statistical Institute *(10).*

Health care delivery system

Primary health care and public health services

Before 1999, primary care and secondary (specialized) ambulatory health care were provided in district free-standing polyclinics and hospital attached polyclinics. It was difficult to distinguish between primary and secondary levels of care. Patients were allocated by address to district midwives and to four kinds of district-based doctors: an internal medicine physician (therapeutist), gynaecologist-obstetrician, paediatrician and a dentist. Patients consulted one of these and if necessary were referred to a specialist based in a polyclinic or hospital. Patients could also obtain direct access to specialists in case of medical need, but cost-sharing by patients was introduced for these cases in 1997 under paid services in public health care establishments.

Among both medical professionals and patients there was significant dissatisfaction with both levels of the system, which were badly in need of reform. A survey in the early 1990s reported that almost two thirds of patients regarded primary and secondary health care services as “bad” or “very bad”, with poor standards of care, long waiting times for patients, and a lack of essential supplies *(12)*. A survey in Sofia found that 77% of health care consumers were dissatisfied with publicly provided health care services compared to only 31% of consumers seeking care in the private sector *(19)*.

1999 saw the introduction of radical structural changes in the organization and provision of health care.

Primary care facilities

Until 1999 primary care was provided by specialists in polyclinics rather than district physicians. As explained above, patients were included on the list of their "district" physician (therapeutists, gynaecologists, paediatricians and dentists) according to their place of residence. This was the medical team that performed primary care services, although not qualified as general practitioners. In many cases patients were referred on to specialists who performed services that now are included in the package of services of general practitioners. There were 203 polyclinics attached to hospitals in 1995 and another 200 free-standing polyclinics. Polyclinics were divided into five categories depending on their range of services and size of population *(12)*.

The three largest categories of polyclinics served populations between 10 000 and 40 000. These had a number of physicians and dentists each supported by nursing and midwifery staff. In addition there was a range of specialists; for example dermatologists, ophthalmologists and neurologists. Some large polyclinics had inpatient beds. Alongside this were diagnostic facilities (laboratory and radiology equipment), physiotherapists and facilities for rehabilitation, and departments for administration. There were also 98 specialist polyclinics for dental care.

The smaller polyclinics served populations of between 6000 and 10 000 persons and generally did not have specialists. Below that level, villages were served by small surgeries (about 100 across the country) with a single district physician often assisted by a nurse or midwife. In over 1000 communities, however, there was no doctor and health care was provided by a feldsher (nurse practitioner or medical assistant). This fifth level, the small health post, was supervised by a neighbouring polyclinic.

The reform in outpatient health care which began in 1999 was based on three laws adopted by the National Assembly of the Republic of Bulgaria: the Health Insurance Law (1998), the Law on the Professional Organizations of Physicians and Dentists (1998), and the Law on Health Care Establishments (1999).

These laws regulate the organization of not only primary care, but also outpatient medical care and dental care as a whole. The reform in primary health care and of specialized outpatient medical and dental care consists in building new types of outpatient health care institutions, which include:

- single and group practices for primary health care in accordance with their number specified in the National Health Map;[14]

[14] This refers to an instrument for structural reform involving the specification of targeted numbers of health care professionals and institutions by region for the entire country; see the section *Reform Implementation* for a full discussion.

- individual and group practices for specialized medical and dental care;
- medical, dental or medical-dental centres;
- independent medical-diagnostic and medical-technical laboratories.

The registered establishments for outpatient care (as of July 2000) are presented in Table 8.

Table 8. Establishments for outpatient health care as of 31 July 2000[a]

Types of health care establishments	Number	
	Medical	Dental
Primary health care		
1. Single and group practices	4 950	5 223
2. Contracts signed with single practices	4 015	4 343
3. Contracts signed with group practices	141	29
4. Specialists: physicians and dentists	855	146
Specialized outpatient care		
1. Single and group practices	3 860	429
2. Contracts signed with single practices	745	–
3. Contracts signed with group practices	34	–
4. Physicians in them	1 877	–
5. Diagnostic and consultation centres	79	–
6. Physicians in them	1 877	–
7. Medical centres, dental centres and medical-dental centres	160	31
8. Physicians and dentists in them	1 192	155

Source: National Health Insurance Fund (21).
Note: [a] One month after the start of health insurance in outpatient care.

The 1999 Law on Health Care Establishments obliged all outpatient providers to choose one of the possible new organizational forms for outpatient care. All physicians wishing to participate in statutory provision must choose one of the following options:

- to register single or group practices for either primary or outpatient specialized care;
- to be employed by the newly created diagnostic and consultative centres required to have more than 10 physicians (specialists, laboratory and X-Ray), or a medical, dental or medical-dental centre.

In the first case physicians contract with the National Health Insurance Fund, in the second the respective centre contracts with the Fund. A doctor who does not participate in statutory provision, that is does not contract with the Fund, may provide services to private patients on a paid basis (out-of-pocket payments).

Most existing polyclinics have been transformed into diagnostic and consultation centres or medical centres and registered as trade companies. These

new organizational forms are housed in the buildings of former polyclinics, owned by the municipalities. Single and group practices have the right to acquire ownership of premises and medical equipment or to pay low rents to the municipalities for consulting rooms in the former public polyclinics. Alternatively privately owned premises or rented privately owned offices may be used.

The main characteristic feature of the reform in outpatient care is the radical change in the form and ownership of health care establishments and the change in legal status. This grants equal status to all types of health care institutions, whether state-owned, municipal or private.

Single practices in primary and specialized medical and dental care are the property of the respective physicians and dentists. Group practices for primary and specialized health care, medical, dental and medical-dental centres, diagnostic and consultancy centres, independent medical-diagnostic and medical-technical laboratories and the hospices are established as trade companies, cooperatives, or limited liability companies by the state, the municipalities or jointly with other persons.

Every Bulgarian citizen is supposed to be insured to receive a package of health care services, determined and paid for by the National Health Insurance Fund (NHIF). Health care is provided by the health care establishments described above, paid for in accordance with the National Framework Contract, which is signed between the NHIF and representatives of the professional organizations of physicians and dentists. The intention has been to abolish the previous financing mechanism which did not account for results, to link financial flows with the quantity and quality of the work performed by health care establishments; and to achieve autonomy of health care establishments. In practice, there is no selective contracting by the NHIF, and health care enterprises are experiencing difficulties due to lack of managerial expertise. Therefore the expected results of the reform have yet to materialize.

The reform has attempted to guarantee each Bulgarian citizen free choice of his or her own personal family physician for primary care, as well as choice of health care establishment for inpatient treatment. By the end of June 2000, 87% of the Bulgarian population had chosen a family physician for primary care. A sociological survey conducted by the Sova-5 Agency in 2000 among a group of respondents who had not yet chosen their family physician revealed that only 4% declared that they have no intention of choosing one, 72% accepted their family physician and believed that they had made a good choice, and 46% believed that the quality of health care would deteriorate under the new system.

At the beginning of July 2000, contracts signed with the NHIF (or RHIF) in the case of primary and specialized care filled 98.4% and 109.5% respectively[15] of the positions specified by the National Health Map. Corresponding figures for primary care dentists and dentists for specialized dental care were 85.9% and 38.5% respectively.

There were 5.4 physician contacts per person in Bulgaria in 1999, in the average range for European countries and low compared to some central and eastern European countries (see Fig. 6). This rate has dropped steadily in Bulgaria since 1989. The volume of services in the Bulgarian health care system has decreased throughout the 1990s according to several measures: number of patient visits for ambulatory care, preventive check-ups, and hospital utilization rates *(11)*. The main reason is decreasing access due to increasing lack of affordability.

The development of primary health care in selected municipalities has been funded by a World Bank project. Two major PHARE projects in primary health care have been successfully undertaken. The first provided two months training in family medicine for district therapeutists in four centres throughout the country; more than 1600 physicians were retrained. The second project developed university training in general or family medicine and curricula for undergraduate medical education and vocational training in general medicine.

A public opinion survey conducted in 1998 showed that 77% of the respondents were dissatisfied with the care in public health care establishments, including 28% who were absolutely dissatisfied due to the lack of good quality services, poor attention from staff, shortage of consumables, as well as loss of time. The percentage of dissatisfied patients using private health care institutions was 27%, including 7% who were absolutely dissatisfied. According to a representative survey *(23)* conducted in 1996, it was found that for 67% of the respondents the physician did not pay sufficient attention to their problems, 62% had no opportunity to speak with the attending physician about their personal problems, 48.1% thought that the physician did not give them sufficient information about their health and healthy lifestyles, and 36% believed that the physician did not devote sufficient time for medical examinations and consultations.

A more recent public opinion survey carried out at the end of 2001*(16)* found that significant portions of the population continue to hold negative views about health care reform. Key issues include the following:

- lack of acceptance of general practitioners as “generalists”, in part justified by family doctors’ lack of training as general practitioners;

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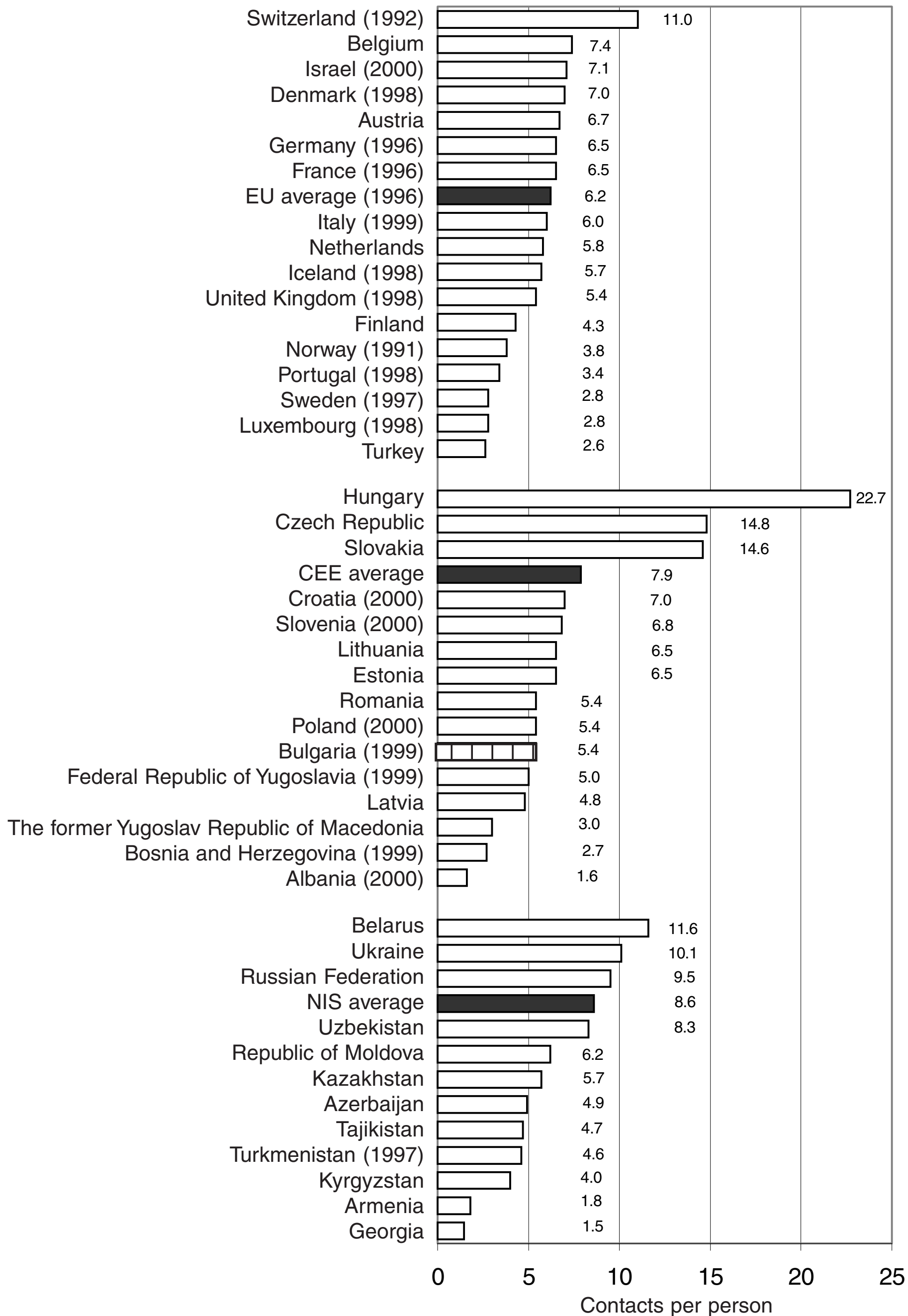
[15] See note 13.

Fig. 6. Outpatient contacts per person in the WHO European Region, 2001 or latest available year (in parentheses)



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

CEE: central and eastern Europe; EU: European Union; NIS: Newly independent states.

- complicated procedures for access to specialist care, insufficient referrals to specialists due to restrictions on general practitioners imposed by the health insurance fund, and common practice of directing patients to paid specialist services following initial free visit;
- long waiting times outside general practitioner (and specialist) offices;
- absence of ethical behaviour among health care providers;
- excessive bureaucratic procedures and clumsy processing system of health insurance fund;
- lack of adequate technical and diagnostic equipment;
- lack of coordination and efficient communication between various units of health care system;
- excessively large numbers of patients assigned to individual general practitioners, resulting in general practitioners inability to allocate sufficient time and attention to patients;
- high prices of medications, complicated bureaucratic procedures for obtaining free or subsidized medications through health insurance fund;
- distrust of National Health Insurance Fund, due to lack of information, closed character, lack of transparency and political links;
- lack of clear information regarding changes in health care policy.

More positively, there is general acceptance and a positive attitude towards the concept of family doctor. In addition, respondents were satisfied with the right to free choice of general practitioner and the opportunity to change to another.

Serious issues remain to be resolved in the training of physicians in general practice so that they can successfully provide needed services in the primary care setting:

- refurbishing and equipping facilities with the modern equipment seriously lacking in many practices;
- improving co-ordination between the activities of primary care and those of emergency and inpatient care;
- developing the requisite managerial support and expertise in the primary care sector;
- developing a monitoring and quality control capacity.

Public health services

Public health services are organized by the Ministry of Health and financed from central sources. The system retains the basic structure that has existed since the 1950s, when public health concentrated upon eradicating communicable diseases. Since 1992 these services have been run by 28 district (now oblast) hygiene and epidemiology inspectorates, rather than municipalities (Fig. 7).

The network of hygiene and epidemiology inspectorates (HEI) covers the entire country, being a centrally managed well-structured organization financed by the Ministry of Health. The HEI system was restructured in 1999. The principal functions of HEI comprise:

- implementation of state sanitary control;
- coordination and implementation of preventive and anti-epidemic measures for control of infectious and parasitic diseases in the event of epidemic outbursts;
- prevention and health promotion;
- consultations on activities for the protection and promotion of personal and public health.

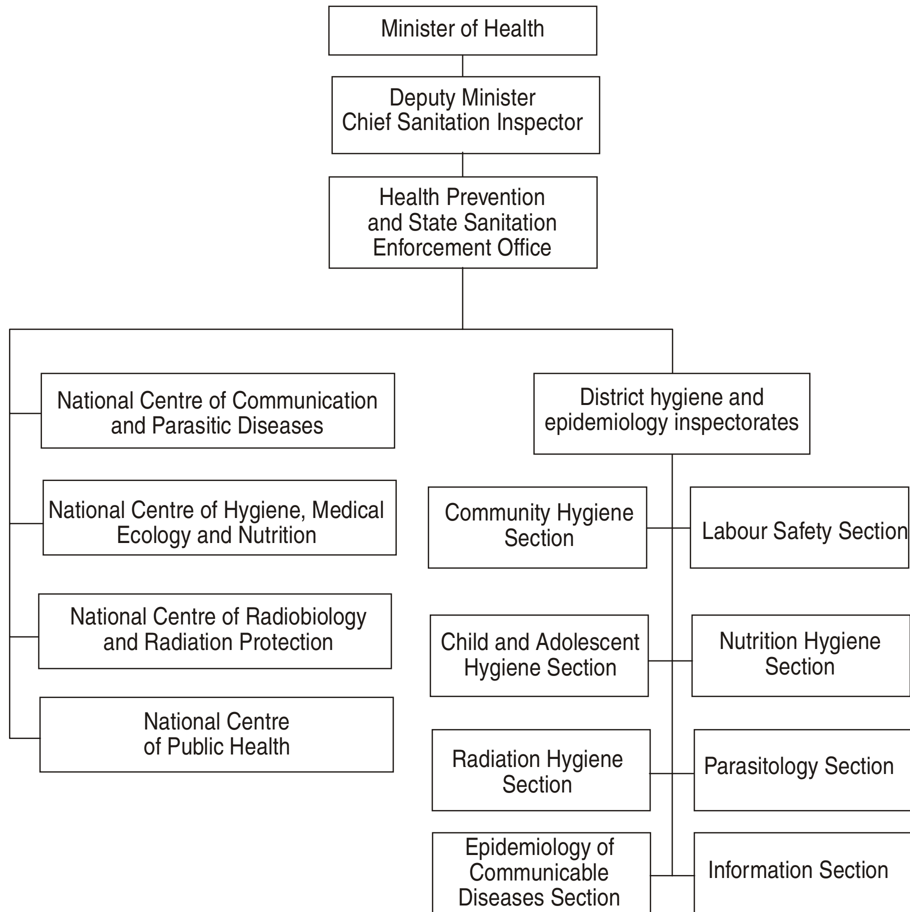
Five operational structures were formed in the HEI system with a view to the cited functions on:

- state sanitary control
- anti-epidemic control
- prevention and health promotion
- laboratory testing
- radiology and radiation protection.

One year after the start of the reform, the following objectives were defined for the HEI:

- broadening functions of HEI to the cause-and-effect relations of health problems;
- applying programme approach for solution of health problems;
- raising quality of laboratory control and opportunities for accreditation of laboratories;
- guaranteeing systematic radiation control and compliance with the norms of individual radiation dose rates.

Fig. 7. Organizational chart of the Hygiene and Epidemiology Service



There are National Centres for Hygiene, Medical Ecology and Nutrition; Infectious and Parasitic Diseases; Public Health; and Radiology and Radiation Protection. The Hygiene and Epidemiology Inspectorates have numerous staff. In 1999 there were 854 specialists with university degrees, 1630 specialists who had completed medical college education and 1540 auxiliary personnel.

Blood transfusion services were extremely sub-standard with poor technology and storage facilities. Work has begun (with the help of a World Bank loan) to rehabilitate the blood transfusion centres and improve the supply, quality and distribution of blood and blood products. The service is also hoping to increase the number of blood donors as well as the possibilities for storage of blood and blood products.

The National Centre for Health Promotion was created in 1991. In 1998 it became a section of health promotion and health prophylactics of the National Centre of Public Health, subordinate to the Deputy Minister of Health for the HEI system. This Centre and the 28 hygiene and epidemiology inspectorates throughout the country carry out health education. Under the Soviet Semashko model the emphasis was upon disease surveillance so that it has been difficult to add activities intended to promote health and healthier lifestyles. The national health strategy calls for better intersectoral collaboration with coordinated national programmes.

The Bulgarian National Environmental Health Action Plan (NEHAP) was adopted in 1998, and the inter-agency plan will be coordinated by a task force within the Ministry of Health.

Levels of immunization for measles, tuberculosis, diphtheria, tetanus, poliomyelitis, and pertussis, according to data supplied to WHO, have remained mostly above 90% during the 1990s. (See Fig. 8 for comparative data on measles immunization.)

The main unsolved problems facing HEI in determining the strategy for further development include:

- need to develop hygiene and epidemiological services as a body for public health protection. This requires further broadening of the functions, total coverage of social and health problems and coordination of their solution;
- overcoming shortcomings in interactions between HEI and its partners both within the actual health care system and with other state bodies, local governments and nongovernmental organizations;
- overcoming insufficient effectiveness and quality of State Sanitary Control, in part due to inadequate training and skills of personnel in organizing integrated control activities;
- developing good interactions for anti-epidemic activities with health care establishments, with a view to prevention and control of infectious and parasitic diseases, immunoprophylaxis and control of nosocomial infections.

Secondary and tertiary care

As in other former Soviet health care systems, Bulgaria has an extensive system of specialized hospital services throughout the country, having concentrated more resources in hospital care than its neighbours. This level of expensive and inappropriate health care cannot be sustained.

Fig. 8. Levels of immunization for measles in the WHO European Region, 2001 or latest available year (in parentheses)

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

Despite its restricted budget, Bulgaria has a much higher ratio of beds to population than most countries in Europe. Numbers of hospital beds continued to rise during the first half of the 1990s, peaking in 1996–1997 at 10.5 per 1000 population. Subsequently they began to fall precipitously, reaching 7.5 in 2000 (see Table 9). This can be seen in Fig. 9, where the single figure for 1996 stands high above almost all countries shown, also in Fig. 10 and Table 10. It should be noted that bed numbers shown in Fig. 9, Fig. 10 and Table 10 differ (are lower) from those of Table 9, because the former refer to acute hospitals only, Table 9 refers to all hospital data. It should be noted that many hospital beds in Bulgaria cannot be categorized as acute care beds.

Table 9. Inpatient facilities utilization and performance, 1980–2000

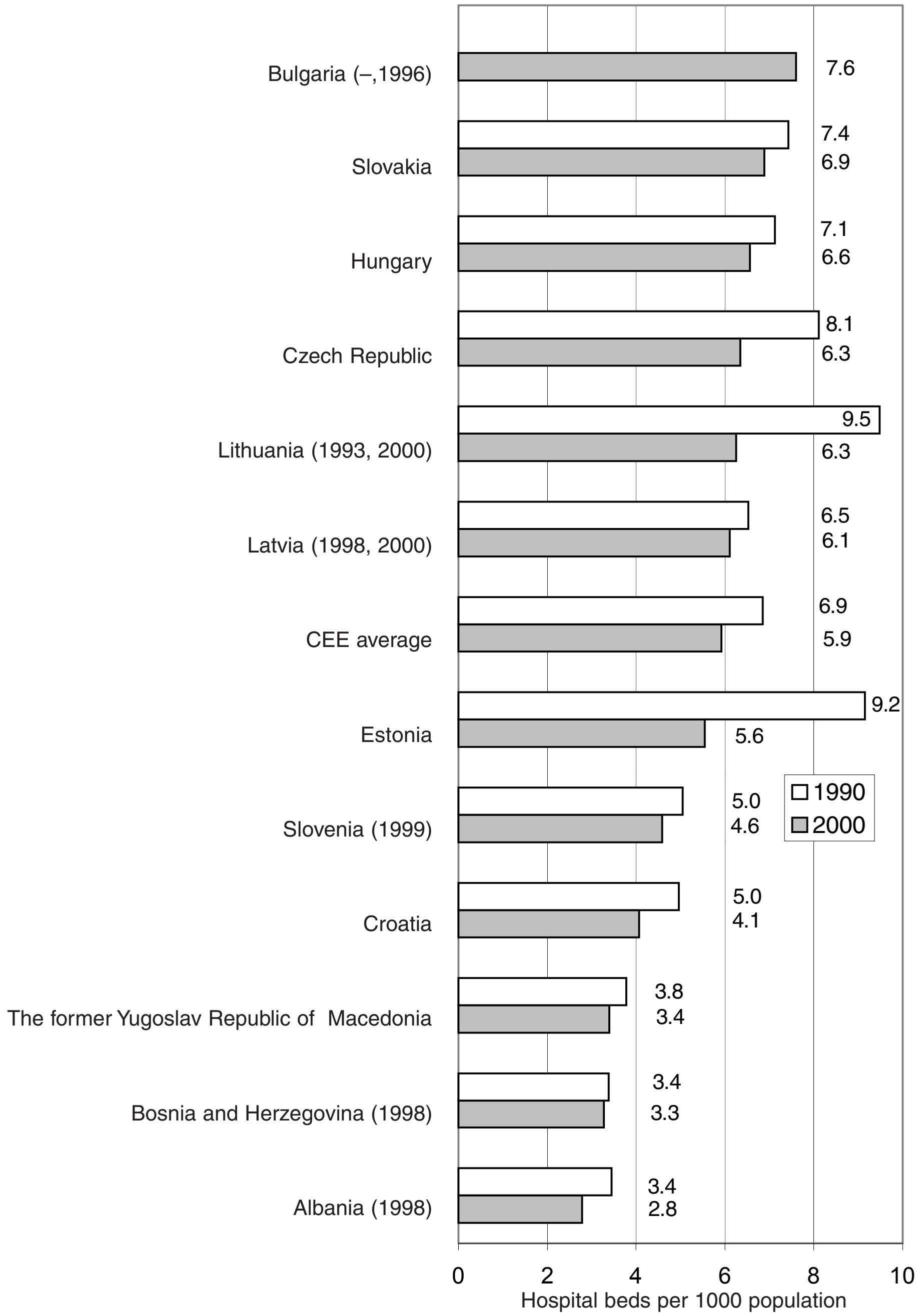
Inpatient indicators	1980	1990	1995	1996	1997	1998	1999	2000
Number of hospital beds per 1000 population[a]	8.9	9.8	10.4	10.5	10.5	8.6	7.9	7.5
Admissions per 100 population[a]	17.6	19.0	17.7	17.5	15.6	16.1	15.8	15.5
Average length of stay in days[a]	15.2	13.7	13.6	13.2	12.9	12.5	11.9	11.5
Occupancy rate – acute hospitals (%)[a]			64.0	64.0	62.0			
Occupancy rate – all hospitals (%)[b]	85.7	77.0	66.0	63.3	55.3	63.2	67.1	66.3

Source: [a] WHO Regional Office for Europe health for all database *(4)*; [b] Ministry of Health *(14).*

The extensive hospital network means that most people have access to some kind of inpatient care, but there is excessive and often unnecessary use of hospital beds, often for social indications. Government recognition that bed reduction programmes and more appropriate use of inpatient care can lead to enormous cost savings has made this issue one of the cornerstones of the reform. The 28% decline in bed numbers over a three-year period (see Table 9) indicates that bed reduction efforts have been rather successful.

In 2000 there were a total of 253 multi-profile and specialized hospitals with municipal, regional and national functions in Bulgaria. There were 143 multi-profile hospitals for acute care, with 39 270 beds. The 80 specialized hospitals with 10 167 beds, together with the outpatient clinics, guarantee a large volume of specialized inpatient care at regional and national levels.

Fig. 9. Hospital beds in acute hospitals per 1000 population in central and eastern Europe, 1990 and 2000 or latest available year (in parentheses)



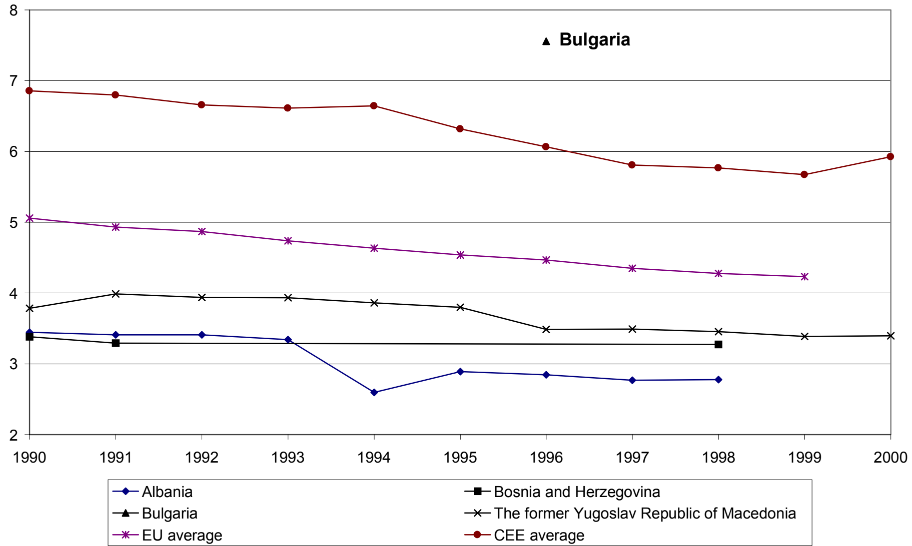
Source: WHO Regional Office for Europe health for all database.
CEE: central and eastern Europe.

Table 10. Inpatient utilization and performance in acute hospitals in the WHO European Region, 2000 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	6.2	27.2	6.3	75.5
Belgium	5.5[b]	18.8[b]	8.7[b]	79.9[b]
Denmark	3.3[a]	19.1	5.5	79.9[a]
EU average	4.2[a]	19.0[b]	8.2[b]	77.0[b]
Finland	2.4	20.2	4.3	74.0[e]
France	4.1[a]	20.0[a]	5.5[a]	77.4[a]
Germany	6.4[a]	20.3[a]	10.7[b]	81.6[b]
Greece	3.9[a]	14.5[c]	–	–
Iceland	3.7[d]	18.1[e]	6.8[e]	–
Ireland	3.0[a]	14.1[a]	6.5[a]	83.0[a]
Israel	2.3	17.5	4.3	94.0
Italy	4.5[b]	17.1[b]	7.1[b]	74.1[b]
Luxembourg	5.5[b]	18.4[f]	7.7[b]	74.3[f]
Malta	3.7	11.2	4.6	75.5
Netherlands	3.3	9.1	7.7	58.4
Norway	3.1	15.5	6.0	85.2
Portugal	3.1[b]	11.9[b]	7.3[b]	75.5[b]
Spain	3.0[d]	11.2[d]	8.0[d]	77.3[d]
Sweden	2.5	15.6[b]	5.5[a]	77.5[d]
Switzerland	4.0[b]	16.4[b]	10.0[b]	84.0[b]
Turkey	2.2	7.6	5.4	58.7
United Kingdom	2.4[b]	21.4[d]	5.0[d]	80.8[b]
CEE				
Albania	2.8[b]	–	–	–
Bosnia and Herzegovina	3.3[b]	7.2[b]	9.8[b]	62.6[a]
Bulgaria	7.6[d]	14.8[d]	10.7[d]	64.1[d]
CEE average	5.9	19.1	8.3	72.8
Croatia	4.1	13.9	9.2	86.3
Czech Republic	6.3	18.7	8.8	70.7
Estonia	5.6	18.7	7.3	66.1
Hungary	6.6	22.4	6.7	72.5
Latvia	6.1	20.0	–	–
Lithuania	6.3	20.9	8.3	76.0
Slovakia	6.9	18.9	9.4	71.0
Slovenia	4.6[a]	16.1	7.6[a]	73.2[a]
The former Yugoslav Republic of Macedonia	3.4	8.9	8.4	60.1
NIS				
Armenia	4.9	4.9	10.3	28.2
Azerbaijan	7.3	4.7	15.4	28.5
Belarus	–	–	–	88.7[f]
Georgia	4.3	4.5	7.8	83.0
Kazakhstan	5.5	14.1	11.5	97.0
Kyrgyzstan	6.1	15.5	12.3	90.2
NIS average	6.4	15.3	12.9	84.6
Republic of Moldova	6.3	13.1	11.9	66.6
Russian Federation	9.2	21.1	13.5	85.8
Tajikistan	5.9	9.0	13.2	59.8
Turkmenistan	6.0[c]	12.4[c]	11.1[c]	72.1[c]
Ukraine	7.2	18.4	12.7	88.1

Source: WHO Regional Office for Europe health for all database.
Note: [a] 1999, [b] 1998, [c] 1997, [d] 1996, [e] 1995, [f] 1994, [g] 1993, [h] 1992, [i] 1991, [j] 1990.

Fig. 10. Hospital beds in acute hospitals per 1000 population in Bulgaria and selected countries



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

The 32 regional hospitals were transformed into trade companies, the state holding over 50% of their assets, and municipalities holding the remainder. Until 2000 these hospitals were financed by municipalities, administered jointly by municipalities and Ministry of Health Regional Health Centres. Since 2000, regional hospitals have been financed from the budget of the Ministry of Health. Since July 2001 hospitals have had the opportunity to secure additional revenues for themselves by signing contracts for concrete clinical paths with the NHIF.

The national institutes and centres provide tertiary care in cardiovascular medicine, oncology, rehabilitation, infectious diseases, haematology, drug addictions and radiology. These are owned, administered and financed by the Ministry of Health. Since 2001, 21 hospitals in total have been defined as teaching hospitals. The Ministry of Education and Sciences finances the teaching activities performed in hospital establishments. There is also a hospital that treats members of the Council of Ministers, and several other ministries (defence, transport and internal affairs) own and finance their own hospitals and polyclinics. Specialized dispensaries (for oncology, psychiatry, dermatology, sexually transmitted diseases, and tuberculosis) also operate at the regional level.

In 2000 there were additionally 30 specialized rehabilitation hospitals that assure rehabilitation and recreation after treatment of chronic diseases.

Access to inpatient care is regulated through an Ordinance of the Ministry of Health. Patients are admitted to hospital with a referral issued by a physician or dentist from the outpatient care system. If a patient goes to hospital without referral, s/he may be admitted only after careful assessment of the need for inpatient treatment. Alternatively, the patient must pay out-of-pocket.

Emergency cases are admitted to the nearest medical institution, until their condition is brought under control or until they have transferred to another emergency unit.

Hospitals under contract with the NHIF are obliged to guarantee their patients continuity of medical care and co-ordination among the specialists. Diagnosis and treatment are supposed to be conducted following the rules and standards of good medical practice, which are stipulated as a process in the clinical paths. The clinical paths, adopted from Australian experience, represent a description of the activities and procedures to be performed, including an itemized schedule with days and hours, by each member of the hospital staff for the treatment of the respective diagnosis. It is difficult to say at this point how effectively this new system is working in practice.

Hospitals are required to develop clinical protocols and procedures, which are to be applied in the care of high-risk patients in cases specified in the National Framework Contract. These include such cases as the need to perform invasive and high-risk diagnostic and therapeutic procedures; care for emergency cases; performing life-saving and life-supporting activities; transfusion of blood and blood products, etc. Here, too, it is difficult to say how well these procedures are working in practice.

The regional health insurance funds must provide information to the providers of outpatient care about the available inpatient care in the respective region, under contract with the NHIF, as well as the packages of services agreed upon with them according to disease groups.

Hospitals provide certain follow-up care after surgical interventions or sophisticated procedures. Some hospitals have established their own diagnostic-consultative centres which contract outpatient care services with the NHIF.

Emergency care is provided in 28 regional centres for emergency care, with patients transferred if necessary to the appropriate inpatient facility. This network is financed and coordinated by the Ministry of Health with assistance from Phare and the World Bank (capital costs only).

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[16] It should be noted that here, too, the figures in Table 10 are not directly comparable with those of Table 9, as the former refers to acute hospitals only while the latter refers to all hospitals.

Health care establishments that are trade companies are managed by a Board of Directors that elects an Executive Director of the respective medical institution. The Minister of Health signs contracts for management of state-owned medical establishments.

The admission rate of 15.8 per 100 population (in acute hospitals) is in the mid-range compared to other European countries (Table 10).[16] The average length of stay tends to be higher than in most other countries in the European Region (Table 10), though it has been dropping consistently since 1980 (Table 9). The occupancy rate in all hospitals (not only acute) was below two thirds of capacity (Table 9 and Table 10), which is low compared to western European countries (Table 10).

Problems in the hospital sector

A number of problems are being resolved in a step-wise fashion within the framework of reform implementation. First, as noted above, Bulgaria has an over-supply of hospital beds compared to western European standards. Second, hospitals are not used efficiently, with long lengths of stay and low bed occupancy. Third, some hospitals are in a very poor state of repair, poorly equipped and suffer from a shortage of essential supplies so that patients are forced to buy basic necessities such as drugs and food. Fourth, facilities and qualified staff are concentrated in urban areas.

To address some of these problems, a process of accreditation of hospitals began in 1997. Substandard hospitals are being closed (for example, some pulmonary and psychiatric hospitals). So far, about one third of municipal hospitals and one third of regional hospital beds have been closed down. The structural changes introduced in 1998 contributed to the dramatic contraction in the number of beds discussed above.

The reform in inpatient care requires each hospital to comply with the normative requirements; creating a system for management of the quality of hospital services, introduction of new technologies in the therapeutic process, reduction in the number of unoccupied beds and guaranteeing financial stability. Under the 1999 Law on Health Care Establishments, hospitals were guaranteed autonomy, a possibility to sign contracts for the services they will provide and a management approach in planning activities and determining costs.

According to a public opinion survey carried out at the end of 2001 *(16)*, patient experiences with the hospital sector tend to be negative. The following key issues were identified:

- lack of sufficient and clear information regarding prices of inpatient care, tests, and surgical interventions;
- uncertainty and clumsiness in doctor-patient relations;
- limited possibilities for patient choice of hospital;
- poor hygiene conditions of hospital premises;
- large co-payments;
- continuing practice of under-the-table payments;
- lack of information concerning package of health services paid by health insurance fund.

Social care

Before 1990, social care was the responsibility of the Ministries of Health and Social Welfare. Since then it has been the responsibility of the Ministry of Social Welfare and local social welfare departments, financed from state and municipal budgets. The Ministry of Health is no longer involved.

The number of social facilities has increased over time. A voluntary welfare sector is becoming established with the growth of nongovernmental organizations, some funded by international organizations.

In 1997, there were 199 social homes and facilities providing 50 596 places. This included 65 homes for the elderly, 30 for the physically disabled, 49 for the mentally disabled and 35 for children with mental and physical disorders. Residential homes provide social and medical care for elderly and chronically ill people who can no longer stay with their families. In 1999, structural changes were made in the services provided by the social care institutions, divided into two groups:

- social services provided in the home environment;
- social services provided outside the home environment.

Table 11. Social care establishments in 2000

Establishments	Total	
	Number	Beds
Total	212	55 834
1.Social services provided in home environment:	28	39 559
- Social supervision in the homes	–	38 358
- Day care centres for elderly people	6	190
- Centre for Social Rehabilitation	4	441
- Day care centres for mentally handicapped children	15	470
- Day care centres for mentally handicapped adults	3	100
2. Social services provided out of home environment:*	184	16 275
- Homes for temporary accommodation	12	1 077
- Homes for elderly people	51	4 665
- Homes for physically handicapped children	1	130
- Homes for physically handicapped adults	25	130
- Homes for individuals with sensory impairment	4	185
- Homes for mentally handicapped children	33	2 303
- Homes for mentally handicapped adults	48	4 673
- Social educational-vocational establishments	10	1 635

Source: Ministry of Health *(14).*
* Refers to number of places.

Compared to previous years, it is interesting to note the decrease in the number of establishments providing services outside the home. The number of homes for senior citizens and for mentally handicapped children and adults is also decreasing. Legislation for the social integration of disabled people has been agreed but not yet fully implemented. The government recently created a special central fund to finance the rehabilitation and social integration of the disabled.

There are different forms of community care intended for those with low incomes, the elderly and the disabled. These people receive some financial support and some help in kind (for example, help towards household costs and maintenance and provision of free food).

All these forms of social and community care are financed from municipal budgets. Residents often pay part of their pensions to cover the costs of care in these institutions. Regional centres for social care supervise social activities. They determine the number of staff appointed and also appoint the directors of social facilities.

Human resources and training

Doctors are trained at five universities (medical universities in Sofia, Varna, and Plovdiv, and medical schools in Pleven and Stara Zagora). These were part of a National Academy of Medicine until 1991 but now function independently, under both the Ministry of Health and the Ministry of Education and Science. The Medical University in Sofia has four faculties: medicine, dentistry, pharmacology and public health. Plovdiv has two faculties: medicine and dentistry. Varna has two faculties: medicine and public health. The other two schools in Pleven and Stara Zagora have faculties of medicine only. Undergraduate medical education lasts six years (five years of theoretical training and one year of practice) with five state exams during the sixth year. The curriculum was recently reorganized to include 90 hours of teaching in family medicine. After four years of residence and postgraduate qualification, doctors register their medical qualifications with the Ministry of Health and are issued a licence to practice by the Centre for Postgraduate Training of Sofia Medical University.

The Higher Medical Council of Bulgaria has developed new curricula for postgraduate specialization, undertaken in a hospital approved by the Ministry of Health. There are sixteen basic specialties with an average duration of three to four years (according to specialty and workplace of trainees). The procedure of admission was reviewed and new legislation passed in 2001; each university organizes the admission and organization of specializations but all trainees sit a final examination in Sofia. The Minister of Health issues an order concerning the number and members of examination bodies. One of the postgraduate programmes is in general medicine, which intends to meet the European requirements for vocational training in family medicine.

With ongoing reform in primary health care, it became necessary to restructure the medical education of physicians and nurses. Five departments of general medicine were formed in 1998 with the help of the Phare Programme of the European Union. The Ministry of Health, jointly with the Higher Medical Schools, drafted the curriculum for undergraduate and postgraduate specialization in general medicine, which was formally approved. The first admission of trainees for specialization in general medicine took place in 1999, 1000 physicians from the health care network enrolled.

All paramedical specialists (nurses, midwives, laboratory and X-ray technicians, physiotherapists, etc.) receive training in 14 medical colleges. Their teaching activities and curricula were substantially updated by a Phare project "Development of Paramedical Education in Bulgaria" in collaboration with

experts from France and Belgium. Within the same project a Bachelor's degree programme in health care management for nurses and other paramedical specialists was developed . This degree programme is offered at three university centres: in Sofia since 1995, Pleven since 1996 and Plovdiv since 1997.

Within Tempus' "Development of Continuing Education and Specialization of Paramedicals in Bulgaria", programmes for specialization of nurses in public health, anaesthesiology, intensive care, psychiatry, and in continuing education were developed in collaboration with France and Belgium.

In 2001 two Faculties of Public Health were established: one in Sofia University, the other in Varna. Both faculties offer Master's degree programmes in public health and health management. A Master's degree programme for those with a Bachelor's degree in health care management is offered at Pleven Higher School of Medicine. Bachelor and Master's degree programmes in health management have been offered at the New Bulgarian University since 1999.

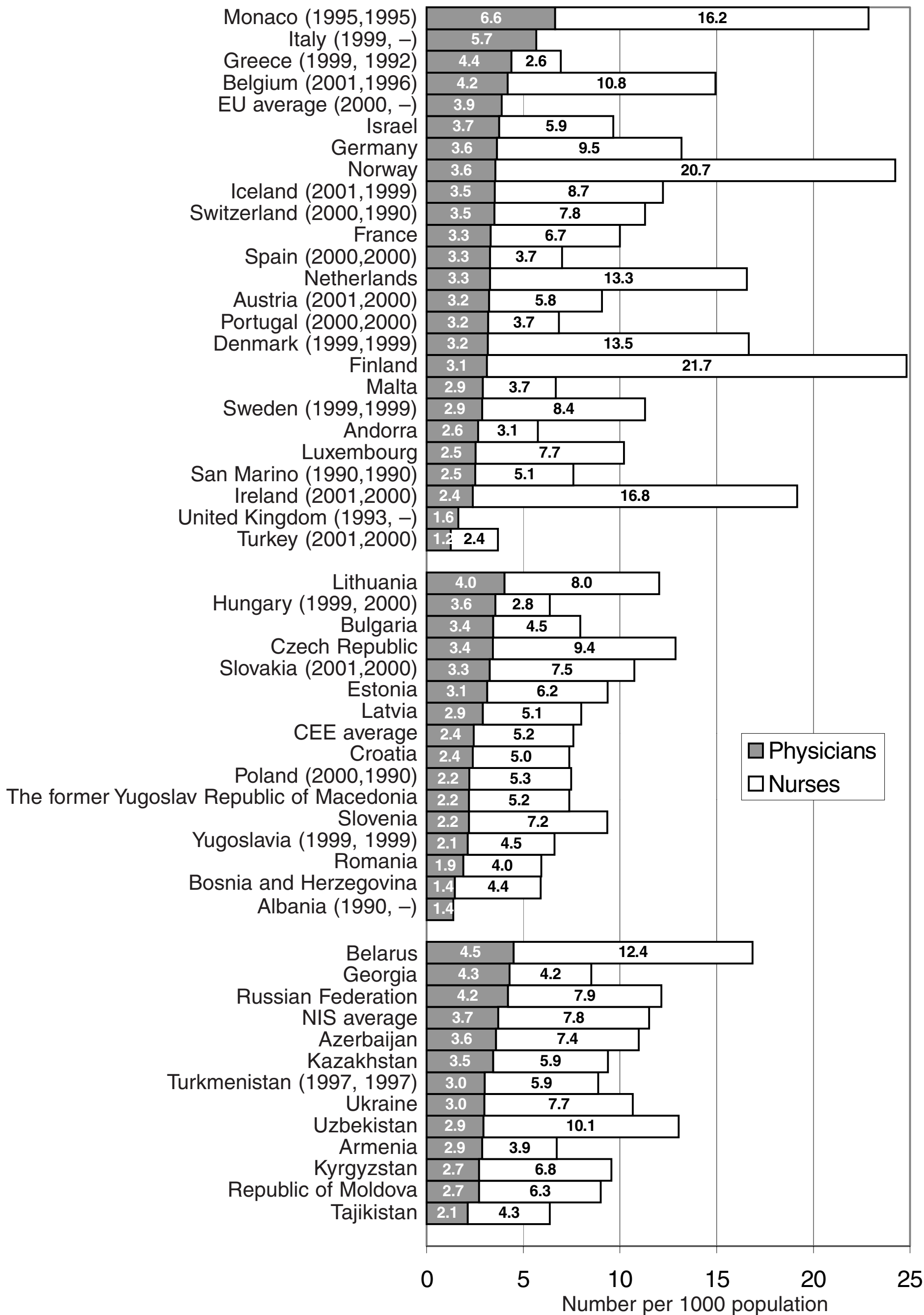
There is an official programme for postgraduate education in informatics and health care management as a medical specialization. Medical managers and directors of inpatient health care establishments, diagnostic and consulting centres, and medical centres, are not eligible for these positions without a specialization in informatics and health care management. With the support of the Phare programme, some people have attended short courses in epidemiology and health system management in European Union countries. The new Faculties of Public Health in Sofia and Varna, as well as the Higher School of Medicine in Pleven and the New Bulgarian University offer many possibilities for Master's Degree programmes in public health and health care management and many postgraduate courses.

Medical education and research in Bulgaria have suffered enormously from the funding shortages crippling the health care system. The quality of medical education has deteriorated and funding for research has all but stopped. This has resulted in an outflow of talent from the public medical sector and into the private sector or toward better job opportunities abroad.

To date, no national strategy has been developed to plan human resources and improve education and training, although the issue of optimal health care personnel numbers is beginning to receive some attention through the National Health Map (see the section *Reform Implementation* for more information). The general view is that there is an over-supply of doctors but an undersupply of other qualified health care staff. In 1997 the government decided upon a

[17] Discrepancies between data in the figures and Table 12 are due to differences in the ways of classifying health care personnel followed by WHO's health for all database and the Bulgarian Ministry of Health.

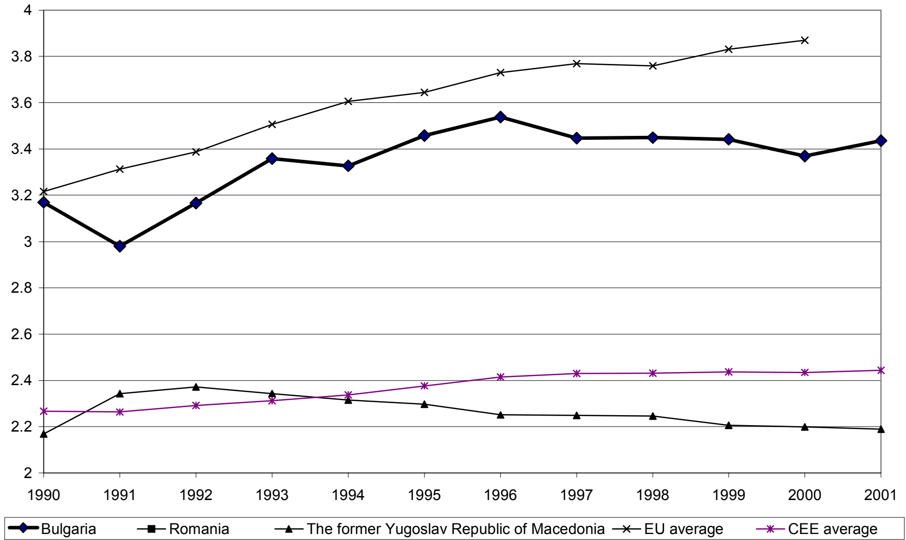
Fig. 11. Number of physicians and nurses per 1000 population in the WHO European Region, 2000 or latest available year (in parentheses)



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

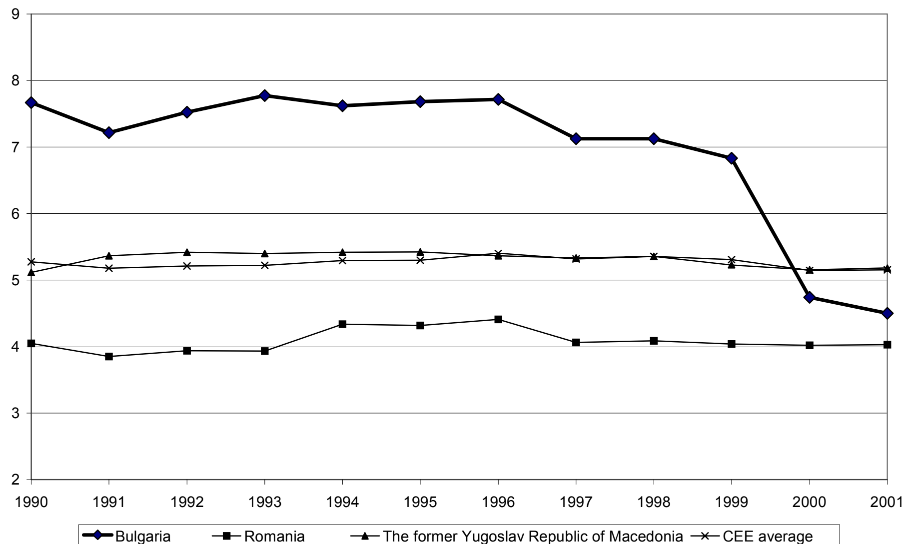
CEE: Central and eastern Europe; EU: European Union; NIS: Newly independent states.

Fig. 12. Number of physicians per 1000 population in Bulgaria and selected countries



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

Fig. 13. Number of nurses per 1000 population in Bulgaria and selected countries



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

10% reduction in staff followed by a 30% cut in hospital staff over 5 years, primarily through early retirement and transfers *(11)*.

Bulgaria had 3.4 doctors per 1000 population in 2000 (Table 12 and Fig. 11 and Fig. 12). As can be seen in Fig. 11 and Fig. 12, this is higher than the average for the CEE, but interestingly the level and time trend of Bulgarian doctors per population almost coincide with the EU average (Fig. 12). There has been a slightly increasing trend in doctor numbers during the 1990s, which is probably related to increasing numbers of medical graduates. In the early 1990s, some restrictions were placed upon the number of medical students to be admitted at the five medical universities and 14 medical colleges. The Ministry of Health also tries to limit the number of admissions for postgraduate specializations (except general medicine) on the basis of forecasted needs.

Fig. 11 suggests that Bulgaria is in the mid-range of CEE countries in numbers of nurses. Both Table 12 and Fig. 13, showing time trends,[17] reveal a large drop to have occurred after 1996 and particularly in 2000. These declining numbers are due to the low prestige and remuneration levels of the nursing profession. Nurse training has been upgraded in all 14 colleges, which offer a range of courses for health care professionals. Until 1996 all nurses underwent two or three years training after completion of secondary-level education. With support from a Phare project, colleges for nurses now offer a Bachelor's degree in nursing. After training in general nursing, nurses undertake specialization (for example, in midwifery and psychiatry). Nurses also acquire experience and training from their employer hospitals.

Table 12. Health care personnel, population ratio, 1980–2000

Per 1000 population	1980	1985	1990	1995	1996	1997	1998	1999	2000
Physicians	2.46	2.86	3.29	3.47	3.54	3.45	3.46	3.45	3.38
Dentists	0.54	0.64	0.70	0.65	0.66	0.63	0.59	0.57	0.83
Certified Nurses	6.85	7.40	7.67	7.68	7.72	5.71	5.75	5.52	3.86
Midwives	0.89	0.87	0.84	0.79	0.79	0.71	0.71	0.71	0.51
Pharmacists	0.41	0.47	0.49	0.22	0.22	0.19	0.19	0.19	0.13
Physicians Graduating	0.15	0.17	–	–	–	–	–	–	–
Nurses Graduating	0.55	0.13	0.16	–	–	–	–	–	–

Source: WHO Regional Office for Europe health for all database *(4)*; Ministry of Health *(14)*.

Pharmaceuticals and health care technology assessment

Until 1991, the production and distribution of pharmaceuticals was fully centralized (under the umbrella of the State Pharmaceutical Company) and covered all functions, including a network of pharmacies and sanitary supply shops, specialist warehouses and depots, importers and distributors of medicinal drugs and sanitary supplies. Transition to a market economy broke up this monopoly. There are now 28 separate state-owned companies dealing with the production, supply and distribution of pharmaceuticals, some of which are being privatized. In 2000, there were 53 manufacturers of pharmaceutical products, and 1220 pharmaceuticals were approved for use in the country. Of these, 183 are produced in Bulgaria, 220 manufactured jointly by Bulgarian and foreign producers, the remaining 817 produced solely by foreign manufacturers.

Until 2000, about 300 wholesale traders with 527 warehouses were registered. There are now 2 787 hospital, municipal and private pharmacies. Private pharmacies must be licensed by the Council for Pharmaceutical Affairs in the Ministry of Health. Privatization has improved the supply of drugs and the -consumption of pharmaceuticals has increased, though in certain instances this involves inappropriate use of pharmaceuticals.

The pharmaceuticals market for 1999 amounted to 288 570 017 leva; 160 463 117 (55.6%) was used to purchase imported products and 128 106 900 leva (44.4%) to purchase locally produced drugs. The new Law on Pharmaceuticals and Pharmacies in Human Medicine, adopted in 1995, created the basis for the restructuring of the pharmaceutical sector. Ten EU Directives on Good Manufacturing Practices (GMP) were adopted with a package of 32 pieces of secondary legislation. The methods and means for production, testing, registration, sales, import, prescribing, dispensing, advertising and storing of pharmaceuticals were determined.

Efforts towards fuller harmonization with EU legislation resulted in a total revision of the Law on Pharmaceuticals and Pharmacies in Human Medicine in January 2000. Concrete requirements have been developed and adopted concerning:

- permission and use of medicinal products: vaccines, toxins, serums and allergens, as well as high technology pharmaceutical products and homeopathic preparations obtained from human blood or plasma;
- testing of pharmaceuticals;

- pricing and control of prices: the state registers maximum permissible prices;
- production of pharmaceuticals;
- wholesale trade;
- classification of drugs depending on the means of dispensation;
- obligatory data on packages and insert leaflets;
- observing certain rules in the advertising of pharmaceuticals, etc.

In 1999, the Research Institute on Pharmaceuticals was transformed into the Executive Agency on Pharmaceuticals, with the Ministry of Health as a supervisory body for the quality, effectiveness and safety of pharmaceuticals.

Most drugs are paid for out-of-pocket by patients at market prices. The Ministry of Health and the NHIF cover the cost of some expensive drugs. The Ministry of Health pays for cancer chemotherapy, cardio stimulators and other life saving drugs. Drugs for certain chronic illnesses are paid fully or partly by the NHIF. Certain categories of patients (children, veterans of wars) receive partly subsidized drugs. Reimbursement is based on a positive list of reference prices drawn up by the NHIF and patients must pay the excess. The list of drugs is updated annually and adopted within the National Framework Contract.

Total expenditure on drugs is substantial although the amount spent by consumers is unknown. In 1999, drugs accounted for 25.4% of government expenditure (see Table 6), excluding the very substantial out-of-pocket spending by patients. There are no official mechanisms to control prescribing or to improve prescribing practice. This is a task of the NHIF, which aims to curtail the growth of health expenditures and to establish a unified methodology for treatment of diseases.

There is no mechanism for technology assessment or for controlling the introduction of new technology in the health sector. At present decisions on the purchase of new equipment are left to the municipalities and other owners of health establishments. Given the rapid introduction of new diagnostic and therapeutic technologies this is a crucial area for regulation (especially in hospitals), already under way in EU and OECD countries.

Financial resource allocation

Third party budget setting and resource allocation

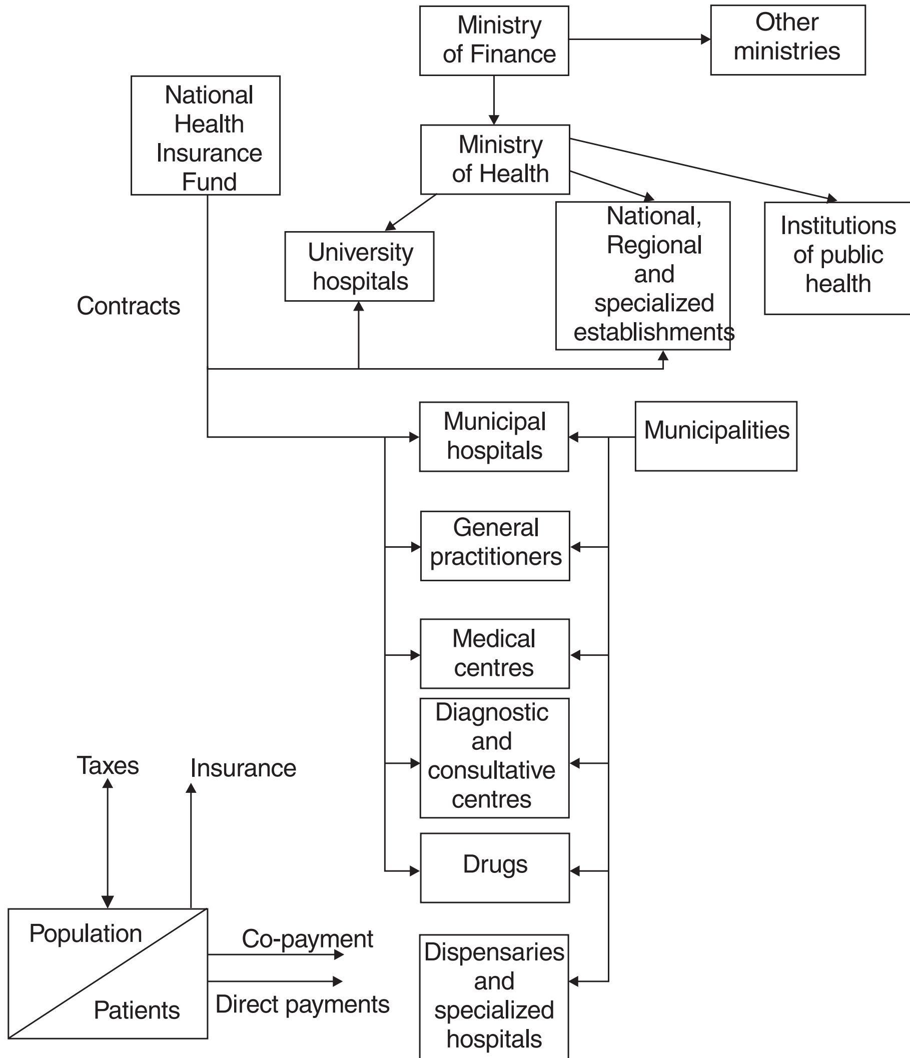
Municipalities raise their own revenue through local taxes and central government allocates additional subsidies. After decentralization of the government and the devolution of powers to local government bodies in the early 1990s, a new approach was developed for determining the transfers to the municipalities on the basis of criteria including local revenues, size of the population, type and scope of hospital activities, etc.

Until the start of the health reform, municipalities decided on the allocation of resources to sectors and providers. Municipalities spent on average about 33.5% of their budgets on health care although this varied widely. Funding flows under the old system were not sufficiently transparent and accountable, with many decisions made in response to political and personal priorities rather than the health care needs of the population. This resulted in considerable inequities in the regional distribution of health care funds, exacerbated at local level by variations in municipal budget revenues *(22)*. Since the establishment of the insurance system in 1999, the National Health Insurance Fund has been involved in resource decisions together with the state and municipalities.

As of July 2000, outpatient facilities are funded entirely by the NHIF, through its 28 regional branches. Since July 2001 the NHIF covers approximately 20% of all hospital expenditure, while the municipalities continue to fund the hospitals in their territory (excluding regional hospitals, funded by the Ministry of Health). The municipalities continue to receive transfers from central government, but set their own priorities on how to spend their limited budgets.

The Ministry of Health funds university hospitals, specialized health institutions at national and regional levels, the public health system, national health programmes, medical research, and international cooperation in health care.

Fig. 14. Financing flow chart



Payment of hospitals

Until the reform of health care finance, hospitals and other provider organizations, such as polyclinics, were allocated an earmarked budget determined mainly on a historical basis. This was divided into separate budget lines for salaries, drugs, food and other uses; managers could not transfer money from one budget line to another. There were few incentives to manage more efficiently and few cost control mechanisms.

Amendments to the People's Health Act in 1997 enabled health care facilities to become juridical entities. This status was also confirmed under the new 1999 Law on Health Care Institutions.

New approaches for management of financial resources were introduced, including fiscal management of budget subsidies by second-level budget-holders since the beginning of 1999. The new approach had the following main goals:

- efficient implementation of the annual budget
- determination of monthly cost limits
- minimization of balances on bank accounts
- generation of revenues
- guarantee of complete information flows.

The new elements in the financing of health care establishments administered by the Ministry of Health can be summarized as follows:

- contractual system introduced between the Ministry of Health as financing body and health care establishments as providers of medical services for performance of certain medical activities;
- system of medical, economic and health indicators introduced for accounting, creating control mechanisms and linking activities to available financial resources;
- active management of money balances began, also analysis of costs according to different economic parameters.

The contractual system was also introduced between municipal authorities and municipal health care establishments. The implementation of this new system of contractual agreements between the providers of medical services and the financing institutions is expected to result in better quality and more information on the implementation of budgets, strengthening of fiscal discipline and containment of costs. However, it should be stressed, there is as yet no active purchasing being carried out by the financing institutions, which so far act merely as passive payers of health care facilities. Therefore, the expected benefits have yet to materialize.

Under the 1998 Health Insurance Law, the NHIF may pay the hospitals on the basis of the National Framework Contract (NFC), with some variations agreed upon at local level, provided that a certain minimum established by the NFC is satisfied. The National Framework Contract is the principal financial instrument for payment to the providers of medical services under the conditions of health insurance. It comprises a package of services, methods and levels of payment, conditions for providing the services, accounting rules and control. According to the provisions of the 1998 Health Insurance Law, the Minister of Health countersigns the National Framework Contract. The first Annex concerning the payment for inpatient care on the basis of clinical paths was adopted in May 2001.

In 2002 and until 2006–2007, inpatient health care will continue to be financed by two main sources: budget and health insurance. The current financing share of health insurance is 20%, though it is expected that the health insurance share will increase, gradually replacing that of the budget. Municipalities thus continue to finance all municipal hospitals, regardless of whether or not they have a contract with the NHIF, though they finance only a portion of costs of contracted hospitals, the balance being paid for by the NHIF. Almost all hospitals have contracts with the NHIF, though the number of contracted clinical paths differs from hospital to hospital.

In 2001 the NHIF financed the treatment of 159 diagnoses, grouped most generally in 30 clinical paths. These clinical paths have been defined on the basis of the most widespread cases of hospitalization. The National Framework Contract for 2002 included 40 clinical paths with over 450 diagnoses.

Relations between the NHIF and the hospitals are regulated in the Annex to the 2001 and 2002 National Framework Contracts. Every hospital has the opportunity to apply for and sign a contract with the NHIF in accordance with its potential, determined by the available equipment and team of specialists, with a view to providing high-quality medical care, diagnostic services and treatment of patients with diagnoses to be paid for by NHIF.

The NHIF pays a fixed price for each clinical path, which includes the costs for the medical activities defined in the different packages; auxiliary services provided to a patient during hospitalization; interventions in connection with the patient’s temporary disability, and up to two outpatient medical examinations for consultation after the patient’s discharge from hospital. The NHIF does not pay for partial fulfilment of the hospital packages, or for re-hospitalization with the same diagnosis within a specified period (different for each diagnosis).

In contracts with the NHIF the providers of inpatient care specify the maximum number of cases in each package. The number of cases may be re-

negotiated, if necessary, and the NHIF reimburse up to 20% more than the maximum number of contracted cases per package but at a lower price than that agreed in the contract. Contracted providers are reimbursed monthly, following submission of invoices and monthly reports on the negotiated packages.

Hospitals also receive additional revenues from user fees that are mandatory for all patients (2% of the minimum monthly average salary per bed-day, for not more than 20 days), as well as from paid services. Every health care establishment drafts its own fees for paid services chosen by the patient. The co-payment for inpatient care was approved by the law introducing health insurance and from 1 July 2001 introduced in all hospitals. Official co-payments were introduced six years earlier, but then applied only in the case of luxury services or in those situations where the patient exercised choice of provider. Official co-payments are a serious burden for lower income groups, and curtail access to necessary treatment. The problem is exacerbated by the presence of underground payments that are quite common in the inpatient sector.

Whereas the introduction of social health insurance and contractual relations between the NHIF and providers has been a key element behind hopes to influence provider behaviour with a view to improving efficiency and quality, these have yet to emerge, as the NHIF has not yet begun to engage in selective contracting but rather tends to act as a passive mover of funds to provider institutions.

Payment of physicians

Until 2000 all physicians were paid a salary fixed by collective national bargaining for each sector. In communist times, physicians' salaries were lower than for many industrial workers. Although physicians' salaries have since risen to about the average for public sector workers, by the end of the 1990s they were still lower (in relative terms) than the remuneration expected by physicians in western Europe. Since the late 1980s, physicians have been permitted to engage in private practice. Some were given the possibility to work as private practitioners in public facilities outside of their usual working hours and thus increase their earnings.

Under the terms of the 1998 Health Insurance Law, family doctors are paid according to the National Framework Contract (NFC) with locally negotiated variations, subject to a minimum established by the NFC. The new rates of payment were introduced in June 2000. The remuneration of general

practitioners in the primary health care system is based on capitation and therefore dependent on the number of people on the physician's list. Extra remuneration is paid to general practitioners working in practices under unfavourable conditions, such as regions with poor infrastructure, remote or mountainous areas. The National Framework Contract has designated 1314 locations as unfavourable and determined the payments due in these areas. General practitioners receive additional remuneration if they carry out interventions related to particular health programmes, mainly preventive services. These are determined by an additional specified amount per patient included in a special health programme. The NHIF pays for 8 health programmes. Finally, they receive additional payment for consultations with patients not on their list, but temporarily away from their normal place of residence and requiring consultation with a general practitioner.

Specialists in the outpatient care system are paid on the basis of number of visits received. Conditions for payment are negotiated between the NHIF and the professional organizations, and included in the National Framework Contract. Providers of outpatient medical care contract with physicians and the Regional Health Insurance Funds. Outpatient doctors have the legal status of independent contractors rather than civil servants. Patients are given free choice of primary care physician (general practitioner). General practitioners act as gatekeepers to the system, visits to specialists requiring referral from the primary care physician.

Physicians working in inpatient health care institutions sign a labour contract with the Director of the respective institution and receive a monthly salary.

Salaries of health sector staff are low, in common with other countries that have inherited a Soviet health care system. Although physicians' salaries have now increased to an average public sector salary, health care professionals expected more from health sector reforms. Continuing low salaries combined with little professional power have produced low morale. The ongoing reform in outpatient medical care in the system for remuneration of the medical specialists has already demonstrated a number of positive results in this respect, particularly for primary care physicians who are being supported by the reform process so as to encourage the development of a strong PHC system based on general practice.

Health care reforms

Aims and objectives

The goals to be achieved by the health system reform in Bulgaria are expressed in a draft policy agenda *(11)* and can be summarized as follows:

- **public/private mix of services to ensure quality of care**. Private health sector development will continue despite recognized inherent problems, with the intention of promoting higher quality of care and improving freedom of choice. A structure similar to the European public/private mix of services should be achieved in the new health system;
- **efficient self-government**. Financing mechanisms for facilities will be developed so as to remove imbalances between areas and institutions. At the same time, lack of management and low flexibility make it difficult to obtain the best from existing resources. Self-governing institutions should be able to improve allocation and technical efficiency, thus cost-effectiveness;
- **system sustainability**. Available resources do not match the services needed. The health care system needs to be oriented towards cost-effective primary health care, requiring the gradual transfer of resources from expensive hospital services. Health care expenditures have to be sustainable in both medium and long term;
- **equity**. If proper regulation is not ensured, equity may be at risk. Those without insurance may have little or no access to even basic services. The newly emerging private sector could create a two-tier system resulting in higher socioeconomic groups obtaining better services;

- **satisfaction.** Over recent years there has been low satisfaction among both doctors (low salaries, poor working conditions, low social recognition) and patients (low-quality services, insufficient freedom of choice, under-the-table payments). These conditions create a barrier against mutual trust that reform will help to overcome. Under the previous communist model, public provision was expected to guarantee quality of care. Standards now must be set and regulatory mechanisms established, i.e. quality assurance programmes and peer reviews.

Content of reforms and legislation

Key events marking the development of the reform process of the Bulgarian health care system include the following:

1989 *Beginning of democratic transition.*

1990 *Re-establishment of Bulgarian Medical Association and Bulgarian Doctors' Union.*

1991 *New Constitution of the Republic of Bulgaria adopted.*

1991 *Local Self-Government and Local Administration Law.*
The law introduced the principle of decentralization in economic and administrative spheres. The municipalities (currently 262) were given the right to manage their own revenues and became responsible for education, health and social care of the populations within the respective municipalities, as well as the support of culture, sports, development of infrastructure, etc.

1991 *Regulation on medical private practice*
Private practice permitted (forbidden since 1972). This regulation set the terms and conditions for registration of private practice and determined the method of calculating fees for medical services.

1991 *Regulation on dental private practice*
Private dental practice permitted (forbidden since 1972). This regulation set the terms and conditions for registration of private dental practice and the method of calculating fees for dental services.

1994 *Government decree on contracting out for general services*

1995 *National Health Strategy*
The first national health strategy was developed with the support of WHO. This document analysed the health status of the population and specified health system problems. No plans for health system reform were included.

1995 *Draft Law on Health Insurance withdrawn*

1995 *Law on Pharmaceuticals and Pharmacies in Human Medicine*
Created the basis for restructuring of the pharmaceutical sector. Ten EU Directives on Good Manufacturing Practices (GMP) were adopted with a package of 32 pieces of secondary legislation. Determined the methods and means for the production, testing, registration, sales, import, prescribing, dispensing, advertising and storing of pharmaceuticals.

1997 *Amendments to People's Health Act*
Approved in 1973 and endorsed from 1 January 1974, this is the main health law in the country. More than 30 amendments have been introduced. The amendments of 1997 introduced paid services under conditions of free choice of providers by patients.

1997 *Law on Health and Safe Working Conditions*
Jointly developed with Ministry of Labour and Social Policy, in accordance with EU legislation (Directive 89/391). Introduces occupational health services as autonomous entities under the administration of the Ministry of Health.

1997 *Ordinance 22 for the Conditions and Processes for Payment for Health Services of Patient's Choice*
This legislative document established fees for health services that must be paid for out-of-pocket under conditions of free choice by the patient of physician or hospital within public sector provision, as well as luxury services. Introduced uniform fees for medical services paid by patients in public facilities, but not private practices. Not the first introduction of cost-sharing; patients had been required to pay for certain luxury services since 1995.

1998 *Law on Health Insurance*
Regulates institutional changes in system of health care finance. Introduced compulsory medical insurance. Established the new National Health Insurance Fund (NHIF), a self-governing institution responsible for the management of health insurance funds. Provided for the development of voluntary health insurance.

1998 *Law on professional organizations of doctors and dentists*
Regulates role of professional organizations as partners of the NHIF in contracting health care services; jointly responsible for the provision of high quality standards and ethical requirements in health services provision.

1999 *Narcotic Substances and Precursors Supervision Law*

1999 *Law on Health Care Establishments*
Provides legal basis for institutional changes in inpatient and outpatient health care. Sets out National Health Map as well as Regional Health Maps, as bases for determining the number and regional distribution of all outpatient and inpatient health care facilities, and the minimum number of health care providers required, throughout the country and its regions. Allocation of facilities, physicians and dentists determined on the basis of rational criteria relating to demographic and social characteristics and health needs. The Health Maps specify the minimal number of physicians (of each specialty) and dentists with whom the NHIF must conclude contracts. National and Regional Health Maps should be revised every five years or more often if necessary. The law has been amended six times since 1999.

1999 *Foods Law*
Guarantees the safety of foods and foodstuffs. Prohibits the manufacture of foodstuffs with ingredients that are harmful to health and the environment.

2000 *National Framework Contract 2000*
Signed in April 2000 by professional organizations of physicians and dentists involving the main changes in financing of outpatient care. The National Health Insurance Fund (NHIF) provides financing for a basic package of health care services for each specialty as established by the National Framework Contract (NFC). NFC provides obligatory financing and payment of health providers in outpatient care. Contracts between the Regional Health Insurance Funds and providers are concluded on the basis of the NFC.

2000 *Amendments and supplements to the Law of Pharmaceuticals and Pharmacies for Human Medicin*e
Regulates pharmaceutical supply in conformity with EU Directives and good pharmaceutical practice.

2000/2001 *Draft Law on Public Health*
Developed by the Ministry of Health in 2000 and 2001, not yet adopted by Parliament. Provides a framework for national health policy in the protection of public health. Expected to contribute to the harmonization of Bulgarian public health legislation and EU Directives.

2001 *National Framework Contract*
The second NFC. Determines the conditions, rules and fee levels for providers in primary health care, dental care, specialized outpatient care and diagnostic services (lab tests, X-ray and expensive image procedures, etc.) in 2001.

2001 *Annex for Hospital Care under NFC 2001*
Document negotiated between professional organizations and the NHIF, approved as a legislative document regulating financing of inpatient care in 2001. Introduces 30 clinical paths comprising 159 more diagnoses as basis for additional remuneration for inpatient health care establishments.

2001 *Adoption by Council of Ministers of National Health Strategy: "Better Health for a Better Future in Bulgaria" and Action Plan for the period 2001–2006*
The National Health Strategy "Better Health for a Better Future of Bulgaria" was developed by the Ministry of Health with the support of WHO and the World Bank. Final version approved by Council of Ministers in April 2001. The National Health Strategy analyses the health status of the nation and the health system and formulates strategic aims and objectives in a long-term perspective. The Action Plan for the period 2001–2006 is an operational document, focusing on concrete actions and programmes according to the main priorities in health reform, and on strategic areas of health promotion and prevention.

The Action Plan establishes six strategic priorities:

- improving the health of the nation;
- increasing the effectiveness of the health system through institutional and structural changes in the delivery of health care services;
- strengthening the functions and structures of public health care;
- raising the quality of medical care;
- changing finance of the national health system;
- adapting human resources in the health sector to the new economic conditions, and institutional and structural changes in health care.

The first priority of the Action Plan, aimed at improving health status, includes health programmes, projects and interventions in five key strategic areas:

- health of pregnant women, newborn infants, children, adolescents and young people;
- rehabilitation of those with physical disabilities;
- restriction of habits hazardous to health;
- reduction of premature mortality;
- reduction of incidence and severity of diabetes mellitus, bronchial obstructive conditions and mental disorders;

- reduction of incidence and mortality from infectious diseases, guarantee of safe blood and blood products.

Reform implementation

Structural reform in Bulgaria aims to rationalize the health care system, improve the effectiveness and efficiency of health care provision and at the same time increase the resources available. Three major reform strands can be distinguished: reform of the system of health care financing, based on the Law on Health Insurance (June 1998); reorganization in primary health care; and rationalization of the network of outpatient and inpatient facilities. Each of these will be discussed in turn.

Reform of health care financing: introducing social health insurance

Various health insurance models were debated throughout the 1990s. Limited public funds available from taxation for the health care system produced underfunding and considerable pressure to tap extra resources. Legislation on the establishment of a social health insurance system was delayed for many years, due mainly to the economic crisis and rising unemployment that meant employers and employees had limited capacity to pay payroll taxes for health insurance.

The Law on Health Insurance (1998) allowed for the scheme to be phased in between 1999 and 2001. The National Health Insurance Fund (NHIF) was established in early 1999 with 28 regional branches. This fund is a single statutory insurer, contributions are compulsory and based on a payroll tax. Parliament must approve the budget of the fund and the payroll tax contribution rate. Organizationally, the system consists of the National Health Insurance Fund, 28 regional health insurance funds (RHIFs) representing branches of NHIF in the administrative regions, and 120 municipal offices (branches of RHIFs). Thus the entire territory of the country is covered. The managing bodies of the health insurance system are the Assembly of Representatives, Board of Directors, Auditing Board and Director of the NHIF.

The Board of Directors and the Auditing Board were set up in January 1999, members having a four-year mandate. The Assembly of Representatives consists of 18 state appointed members, 18 members of the insured population (12 elected on a district basis and 6 trade union representatives) and 18 representatives of employers.

Since July 1999, the insured has paid a percentage of gross income, with contributions divided between the employer and the employee (currently set at 6%). At present, the health insurance payment is shared between the employer and employee in a 5:1 ratio. There are plans for the employee's share gradually to increase and the employer's share to diminish so that by 2007 the shares become equal. The introduction of health insurance contributions was accompanied by simultaneous lowering of other insurance contributions and general tax rates so as to avoid increases of the tax burden on both employees and employers. The insured pays an additional percentage of income to cover other dependent family members. The self-employed pay their own insurance contributions. Contributions for children, students, prisoners, those not in the workforce (such as pensioners) and others without income are paid from the Republican budget, while others (such as persons eligible for unemployment benefits) are paid from the Unemployment Fund. Thus supporting mechanisms are in place for low-income social and risk groups.

Contributions are collected simultaneously with other social insurance contributions and paid into a fund controlled by the National Social Security Institute.[18] The fund has a number of separate budgets: the main fund, a reserve, a fund for administrative costs and a small sum for capital investments. Transfers are made from the National Social Security Fund to the National Health Insurance Fund.

Negotiations and signing of contracts on outpatient care between the NHIF and the providers of medical services started after 1 July 2000. The first National Framework Contract, adopted in 2000, regulated conditions for the remuneration of family physicians and specialists from the outpatient care sector. Since July 2001, health insurance has funded a portion of inpatient care through financing 30 clinical paths for hospitals under contract with the NHIF. For 2002 this number has increased to 40 clinical paths with more than 450 diagnoses.

A basic package of services and projected health care expenditures (mainly recurrent) are defined within the revenue capacity of the NHIF. Services specified in the packages must be reimbursed by the NHIF. In 2000, for the first time, the NHIF prepared minimal and expanded packages for outpatient specialized care, according to agreed contracts with health care providers. Minimal packages contain a certain set of services requiring a basic level of diagnostic equipment; expanded packages include some services that require specialized diagnostic or therapeutic equipment. Depending on the equipment available at each practice, the specialist may contract a minimal or expanded package with the NHIF. All diagnostic and consultative centres are obliged to

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[18] The National Social Security Institute is the public institution responsible for pensions and other social security benefits.

contract expanded packages. A total of 26 minimal and 22 expanded packages for medical services were developed by the NHIF. Fewer than 61% of all specialists from outpatient care having contracts with the Fund have contracted the minimal package of services; the rest have contracted the expanded package. Each package comes with a different price. The types of packages have no bearing upon population groups. It should be noted that minimal and expanded packages apply to specialized outpatient care only; there is one package for primary health care, also defined by the National Health Insurance Fund. All the packages are renegotiated annually with professional organizations of medical doctors and adopted through the annual National Framework Contract.

Packages for inpatient care have been developed according to 40 clinical paths on the basis of which contracts for partial financing of hospitals were signed in 2001. Through regional offices, the NHIF signs contracts with inpatient health care institutions located in the respective regions. Providers of health care applying for a contract submit the necessary documents proving registration and right to provide health care services; qualification of personnel; availability and adequacy of necessary equipment and apparatus for performing the therapeutic activities specified in the contract. Hospitals are obliged to submit programmes for control of nosocomial infections; management and improvement of the quality of all units of the health care establishment; and a business plan with investment programme. Health care institutions with debts are obliged to submit a plan for debt repayment.

The NHIF exercises financial control over the legality and effectiveness of expenditures and monitors quality of medical services. For this purpose, a well-developed network of supervisory and regulatory bodies and controllers has been established at national and regional levels.

In 2000, 90% of the entire population regularly paid health insurance premiums. In the working population the employer deducted insurance premiums from the monthly salary and transferred these amounts to NHIF accounts. In the case of pensioners, students, soldiers, unemployed and other dependent categories the insurance contributions were transferred from the budgets of relevant institutions. The self-employed paid directly.

The first National Framework Contract (NFC) concerning outpatient care was adopted in April 2000, the second at the end of 2000. An Annex to NFC–2001 regulating the introduction of health insurance in the inpatient care sector was adopted in May 2001.

In 2000, about 4341 individual contracts were signed with general practitioners, thus guaranteeing those insured access to primary health care. The total number of contracts signed with providers of outpatient care was 12 042.

The total value of the revenues of NHIF in 2000 was about 550 million leva, 98.2% of that sum coming from health insurance payments. The total costs incurred in 2000 amounted to 257 million leva, 30% of which was spent for primary health care, 20% for outpatient specialized care and 30% for pharmaceuticals. In future the accumulation of funds by the NHIF will be used to provide more complete coverage of hospital expenditures.

A second stage of the financing reform may involve increasing insurance contributions from the present level of 6% to 12%. This is not foreseen for the near to medium term in view of the large financial burden that it will impose. While unpopular, it is held to be necessary to support the increasing liabilities of the system as the NHIF assumes responsibility for fully financing the inpatient sector.

The future success of the scheme depends in large part upon the collection of insurance contributions. Both the National Social Security Institute and the National Health Insurance Fund have reported an increase in contribution compliance by the operation of a joint collection mechanism.

Reform of primary care

The development of a modern system for primary health care was one of the main priorities of health care reform. A national concept for restructuring primary health care was developed, based on general practitioners (family physicians) playing the key role. The general practitioner is to provide a package of primary care services comprising preventive, diagnostic-therapeutic, rehabilitation and medical-social health care activities. Free choice of a general practitioner within the region of a patient's residence was introduced. With the onset of the system of health insurance, 75% of the country's population and 97% in Sofia chose their personal general practitioner, and 63% chose their dentist. The remaining portions of the population were assigned to a general practitioner or dentist. General practitioners must refer patients to higher levels of care, although the RHIFs exercise strict control over this, imposing quantitative limits on the number of referrals general practitioners are permitted to make. Although this general practitioner gatekeeping role works fairly well, GPs are showing a tendency to keep patients at the primary care level, making only limited referrals. Patients who visit specialists without a referral must pay out-of-pocket for the services.

Although general practice was to be the cornerstone of the reform, there were no medical professionals specializing in general medicine. The Law on Health Care Establishments (1999) therefore gave the right, to all doctors with a basic medical speciality or in the process of acquiring a speciality, to establish

an individual or group practice for the purpose of providing primary medical care. The law gave a ten-year gratis period during which to receive training in general medicine.

Significant changes were introduced in the organization of primary health care. General practitioners working in individual or group practices sign contracts with the Regional Health Insurance Funds for providing health care to the insured population. General practitioners in group practices may be registered as a limited liability company or a cooperative. Physicians in the primary health care sector have the right to acquire ownership over the premises and medical equipment they use, or to rent consulting rooms in public outpatient or polyclinic establishments.

In 1999 the Law on Health Care Establishments provided for National and Regional Health Maps. These determine the optimal number and distribution of inpatient and outpatient facilities throughout the country based on demographic, social and health characteristics. The National Health Map, developed by a commission appointed by the Ministry of Health and endorsed by the Council of Ministers, is to guarantee the population equal status and access to medical services. The National Health Map and the Regional Health Maps are instruments for structural reform and investment regulation of the health care network providing an opportunity to plan health services' provision at regional and national levels.

According to the numbers specified in the National Health Map, there are currently 277 primary medical practices and 567 dental practices remaining unoccupied. These tend to be concentrated in rural and underprivileged areas with worse economic and social conditions. In the beginning of 2001 there were about 230 contracts more than the planned number of physicians according to the National Health Map (for the whole country), an indication that urban areas have about 500 excess practices for primary health care. This imbalance is due to physicians' reluctance to occupy practices in remote settlements. The first component of the World Bank Project for Restructuring Primary Health Care (1999–2001) provided modern medical equipment free of charge to such unattractive practices. Equipment was provided to 1789 rural practices before May 2001, fully covering the entire rural network of the country and providing equipment for all rural practices as specified by the National Health Map. In addition, provisions were made for repairing and upgrading 371 general practices in rural communities, while a total of 750 nurses and 1071 general practitioners have been trained within the framework of the Project. The second World Bank Project (2001–2005) will provide equipment for information system development and training, for the rest of the primary care practices in the country.

As a result of World Bank assistance, about 40% of the unoccupied practices in unattractive rural areas became occupied.

Rationalization of the network of health care facilities

Outpatient specialized care

Before 1999 outpatient care was provided in polyclinics and rural health centres. There were two kinds of polyclinics: independent, situated mostly in Sofia and the largest towns in the country; and polyclinics which belonged to hospitals.

Each hospital had a polyclinic attached, hospital medical staff working in both hospital and polyclinic. The polyclinics had no separate budget for outpatient care, were not separate legal entities and could not provide their own management. In 1999 following the adoption of legislation (Law on Health Care Establishments) polyclinics were functionally and institutionally separated from the hospitals.

In tandem with these developments, efforts were made to regulate the activities of physicians in primary and specialized health care provision. The NHIF and the Bulgarian Medical Association drafted rules for good medical practice in primary and specialized outpatient care. Standards were developed and adopted for clinical laboratories, anaesthesia and intensive care, image diagnostics, obstetrics and gynaecology, and nuclear medicine. These are obligatory and included in the National Framework contract. Physicians are subject to penalties if they are not followed in practice.

Following the separation of outpatient and inpatient care, polyclinics became health establishments for outpatient care, which are trade companies under the new system. After court registration, the outpatient health care institutions were registered within their respective Regional Health Centres. By the end of March 2001, a total of 5444 individual practices for specialized health care were registered throughout the country, compared with 3996 practices specified on the National Health Map; and 164 dental practices compared to 746 on the National Health Map. There were 42 physicians working in group practices for specialized medical care, and a total of 329 medical centres, 81 dental centres, 33 medical-dental centres, 102 diagnostic and consulting centres, 529 medical-diagnostic and medical-technical laboratories, and 33 hospices were opened, all having the status of trade companies.

A very small number (not more than 2%) of public medical establishments for outpatient care (polyclinics), which had not been transformed into companies, were closed down.

Emergency care

The reform in emergency health care started in 1994, when separation from primary care began and the car pool was upgraded with modern and well-equipped medical vehicles. Twenty-eight Centres for Emergency Health Care and 185 branches were established as autonomous structures. They comprise 390 teams for providing emergency health care at the place of the accident, in the patient's home, during transportation and in emergency admission wards.

Construction of the system began in 1997 with assistance from the European Union amounting to 10.5 million ECU. This was used to purchase 143 ambulance vehicles, modern equipment for the emergency teams and to build a modern communication and information system covering the entire country.

In 1998, ambulances valued at 135 428 leva were delivered under the World Bank Project for Restructuring of Emergency Health Care. The process of equipping with apparatuses and transport vehicles continued in the two subsequent years with a loan from (International Bank for Reconstruction and Development (IBRD) (amounting to US$ 11.2 million). Training in emergency health care has been organized for physicians and nurses, as well as for the drivers of the medical vehicles. Repairs and upgrading of the emergency admissions wards were nearing completion in early 2002.

The World Bank Project for Restructuring of the Health Care Sector has supported major reform initiatives in haemo-transfusiology:

- construction and repair at transfusion haematology centres, the National Centre of Transfusion Haematology, and Regional Centres in the cities of Sofia, Plovdiv, Stara Zagora, Pleven and Varna, estimated at a total cost of 3.8 million leva;
- purchase of high-quality medical equipment for processing and storage of blood and blood products at total cost of 2.4 million leva. Equipment meets EU quality standards in all six centres of transfusion haematology;
- creating information system for the haemotransfusiology sector;
- developed training programme for specialists from the haemotransfusion centres;
- mass media campaign in support of voluntary blood donation.

Hospitals

Reorganization of inpatient care started at the end of 1997, with the implementation of a procedure for the accreditation of all health care establishments. This continued into 1998. The first wave of accreditation was the identification and reduction of inefficient hospital beds in the inpatient

establishments. As a result, in the period 1997–1998, bed numbers were reduced by nearly one third, with a 14% concomitant reduction in employment. Some psychiatric and TB hospitals that did not meet the required standards were closed down.

The major thrust of the reform in public health care establishments began after the implementation of the 1999 Law on Health Care Establishments. By the end of 2000, all public health care establishments for inpatient care had become inpatient health care trade companies. Specialized boards appointed by the Minister of Health oversaw the transformation of all public inpatient care establishments, dispensaries, and hospitals of the medical universities and higher medical schools, into inpatient health care establishments with the status of trade companies.

The autonomy of hospitals has created the conditions for the development of competition between establishments over the quality of medical services, though actual competition has yet to be seen. The process of transformation took over a year to complete, and created a great uncertainty and challenges for hospitals.

Following completion of the transformation of inpatient establishments and their court registration, the next phase of implementation of the 1999 Law on Health Care Establishments was initiated. All health care trade companies for inpatient care and dispensaries required Ministry of Health licenses to provide services. By May 2001, licenses had been granted to 200 of 254 inpatient health care establishments. A special commission was appointed in order to evaluate establishments on the basis of organization, performance and internal rules established by the Ministry of Health. Every hospital was required to undergo this procedure.

Further, a process of accreditation of the health establishments was initiated. An Ordinance stipulating the criteria and means for accreditation was adopted in 1999. No external assistance was involved in the establishment of the accreditation procedures An Accreditation Board was formed and an organization established in 1999 for the purpose of training and recruiting experts who were to be involved in the self-evaluation process. In 2001 more than 500 specialists from various institutions of the health care system (medical specialists, economists and lawyers) received training on evaluating health establishments at the National Centre of Public Health.

Licensing and accreditation are two different steps in the process of hospital reform, introduced by the Law on Health Care Establishments. The law requires that all health establishments pass the formal procedure of renewed registration in the Ministry of Health after their registration as trade companies according to Commercial Law – so-called licensing of hospital care activities. Health

establishment accreditation, by contrast, is performed by the Accreditation Board upon the request of health establishments.

A health establishment that applies for accreditation is issued with an order to start an accreditation procedure by the Minister of Health. An evaluation expert commission is appointed to evaluate the establishment and work out a proposal for accreditation. The Accreditation Board grants final accreditation evaluation on the basis of the evaluation expert commission proposal. Accreditation is given for one to five years. Accredited establishments are well-placed when contracting with the NHIF, as they meet quality standards requirements for medical services. By May 2002, 135 hospitals and 24 diagnostic and consulting centres had been accredited.

The National Health Insurance Fund, professional organizations of the physicians and dentists and the Ministry of Health, are intended to participate in the process of developing and introducing a system of national standards to regulate the quality of health care. The medical activities of physicians from inpatient care institutions are conducted in accordance with the rules of good medical practice.

The NHIF is intended to exercise quality control with contracted inpatient institutions along three principal lines:

- structural elements: premises, available technology and equipment, structure and qualification of personnel, working teams and health care establishments, available information and public awareness;
- processes connected with health care provision: following instructions governing clinical conduct of medical personnel from the inpatient unit of the hospital care provider, included in the negotiated hospital packages according to nosology;
- results of health care provided: the effect of the activities leading to a change in the health status of the health insured individuals.

The NHIF has created structures for medical audit at the national level and in regional branches. These functions are part of the negotiations between the NHIF and the professional organizations.

But there are no data about the real activities performed by medical controllers concerning quality of services provided. In practice no overall quality assurance strategy has been developed yet in the country, and the impact of the NHIF in this respect is quite limited. While several instruments dealing with quality are being developed – accreditation, licensing and NHIF contracting with providers – there is no unified or coherent framework that can effectively pursue quality improvements, and the impact of all these initiatives on quality has yet to make itself apparent *(24)*.

A system of quality assurance is intended to be developed in the next two years with international assistance under the second World Bank Project: Support for Health System Reform.

The 1999 Law of Health Care Establishments permits public (state and municipal) inpatient care institutions to open private inpatient beds up to a maximum of 10% of the total number. No private beds have been opened because the private services market is not sufficiently well developed. Health sector privatization has been legally authorized; the government maintaining a supervisory role in the overall process. Depending on the ownership of the institution concerned, decisions on privatization are made by the Minister of Health, the Agency for Privatization or the municipal council. Preference is given to medical professionals working in the establishment. The government has approved a list of hospitals that cannot be privatized; these include hospitals with national and regional functions. Hospital privatization has not yet begun.

Problems of implementation

Bulgaria has introduced radical reform of the health care system within a relatively short time, and under conditions of economic crisis it was inevitable that a number of difficulties would emerge. The reform has involved all key areas of the health care system: organization, delivery, financing, and training of human resources.

The reform was met with a great deal of criticism by most of the public and the media. A major problem was the lack of public awareness of the longer term aims and objectives of reform, leading to opposition from both the broader public and medical professionals. A large portion of World Bank funds for communication of the reform procedure was spent on an ineffective advertising campaign.

A second area of difficulties has been the lack of managerial expertise and experience of all the key actors in the process of change. In the first years of the National Health Insurance Fund, efforts were directed toward capacity building and staff training. International assistance and support were important at this stage. Health care establishments lack the managerial expertise required to improve efficiency and take advantage of the autonomy available to trade companies. Two sources of revenue (state support and the NHIF) led to difficulties in financial management. The lack of policy for cost containment led to increases in health expenditure and under conditions of limited financial resources, contributed to an accumulation of debts in hospitals.

As the reform focused on the establishment of a modern western-style primary care system, government policy encouraged the establishment of general practice and practices staffed with family doctors, thus creating an

imbalance in remuneration and inequities between medical professionals in different specialities. The reform has not succeeded in abolishing informal payments for health services. They are still an important source of income for medical professionals, ensuring that a large segment of the medical profession has no interest in the successful implementation of reform.

Serious problems of access to health care services, particularly for pensioners and the unemployed, have been caused by the new financial burden created by the reform. An absence of investment policy due to lack of resources has lead to serious problems with quality of care: outdated and poor-quality equipment in outpatient care, especially in specialized outpatient and inpatient care establishments. Poor relationships and coordination between primary health care and outpatient specialized care lead to difficulties in diagnostic activities and worsens the quality of health care.

Quantitative limits have been placed on general practitioners' referrals to specialists and diagnostic and medical activities, under the control of the NHIF. General practitioners keep patients at the PHC level rather than referring them on, thus limiting access to needed specialized health care. Doctors working as general practitioners are not qualified as general practitioners, leading to poor quality of care at this level.

Conclusions

The Bulgarian health care system remained on the periphery of public sector reforms until the late 1990s. The system appeared to be maintaining itself and there were other political priorities given the catastrophic state of the Bulgarian economy. Numerous changes of government and lack of political will for radical reforms meant that little changed until 1997, when the imminent collapse of the health care system became obvious. The population was overloaded with unregulated payments and a black market for health care services had started to appear.

A step-by-step approach to reform was adopted during the years of economic crisis. The Ministry of Health adopted a strategy for reform based on the principles of equity, cost-effectiveness and quality of care. An increasing volume of information had been collected since 1992 and much technical and financial help was received from international donors. Staff (medical, administrative, paramedical) are being trained to manage these reforms. The general principles, and the philosophy of previously unfamiliar concepts like general medicine, health insurance, health promotion and family planning, have now made major advances in the health care system.

The first step was the adoption of the Health Insurance Law in 1998. A second law, effective since 1998, established professional organizations of doctors and dentists (a medical chamber). A third pillar of reform is the 1999 Law on Health Care Establishments, which outlined changes in the structure of the health care system. These laws laid the foundation for a drastic transformation of the financing and delivery dimensions of the health care system over a relatively short time.

Undoubtedly the reforms are ushering in a period during which certain efficiency gains can be made. Already, it is possible to see signs of this trend in

the very sizeable reduction in hospital bed numbers and resultant cost savings. This is likely to continue in the foreseeable future. Further, the operation of the new insurance-based financing system is expected to increase efficiencies while also helping to mobilize funds for the health sector. New hospital payment methods involving volume-based case payments will accelerate this process.

Patient choice of general practitioner (family doctor) has been permitted. This is one feature of reform that has met with patient approval, although strict enforcement of referrals for higher levels of care has encountered some resistance as it limits patient choice. Consumer choice has also been extended through the expansion of privately provided services. However, the introduction of official co-payments for health care services, together with the continuing (reportedly unabated) practice of under-the-table payments, work against achieving equity. It is likely that there have been serious negative impacts on access to services and pharmaceuticals due to lack of affordability. This issue requires particular attention, especially for vulnerable groups; moreover, some of these groups are more likely to remain uninsured by the National Health Insurance Fund and therefore excluded from coverage.

As the health care reform proceeds, it is of utmost importance that the objectives in the health system remain linked with the achievement of health gains. At this early stage of the reform process, it is difficult to assess the impact on the health status of the population. The reforms are intended to improve health status over the longer term, as they assure better primary care, encourage preventive and health promotion activities, especially for children and women of reproductive age, and assure better care for elderly people.

Although it is possible to detect some nostalgia for the older system of "free" health care, there is now broad recognition of the necessity for reform and that an irreversible process of change has been set in motion. Although based on what is generally perceived to be, in principle, a "good idea", this has not been matched by appropriate financial and technical resources. In order to increase public support for the reform process, it is now necessary for the government to fine-tune the major changes introduced in very recent years, and to ensure that better quality care will be delivered.

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