

## Introduction

### Geographical, economic and political context

Bulgaria is situated in south-eastern Europe in the eastern part of the Balkan Peninsula. The country is a multi-party parliamentary democracy governed by a National Assembly, or Narodno Subranie. The current President is Georgi Parvanov. There are about 250 political parties in Bulgaria; the main ones are the Bulgarian Socialist party, the Simeon II National Movement, the Movement for Rights and Freedom and the Democratic Forces Union party. In 2005 the country's population was 7.7 million, but it is currently declining (1). The promulgation of a new constitution in 1991 set in motion the process of establishing a democratic form of government in the country. Health reforms in the 1990s brought about wide-ranging changes in health care organization, financing and delivery, and a new type of relationship was established between users, providers and payers. In January 2007 Bulgaria, along with Romania, joined the European Union (EU).

### Health status

The health status of the population generally worsened as the economy deteriorated. Life expectancy at birth dropped during the early 1990s and the decrease continued in the transition years, reaching 70.28 years in 1997, but rising again to 72.6 years in 2004. Despite a sizeable decline in mortality rates since 1990, Bulgaria

is still one of the countries with highest rates in the EU. Mortality rates from cardiovascular diseases have increased and represented 66.1% of all deaths in 2005. Other prominent causes of mortality are neoplasms and traumas. Infant mortality rate is above the averages for the EU10 and EU15 countries (those belonging to the EU prior to May 2004 and between May 2004 and January 2007), accounting for 11.6 per 1000 live births in 2004, which was more than double the EU25 average (2).

## Organizational structure

### Historical origins of the system

Before the transition period started in the early 1990s, Bulgaria had a tax-based health care system, developed according to the Soviet "Semashko" model. Health care financing and service provision were integrated into a strongly centralized and hierarchical state organization, the primary objective of which was to ensure free access for all citizens to comprehensive health care services. The health system was predominantly supply-oriented and was not based on the health needs of the population. The system was curative in orientation and reliant on inpatient care.

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## **Organizational structure and decentralization**

Before the structural reforms of the 1990s, organizational arrangements, decision-making and funding of health care were centralized. After the reforms, reorganization and decentralization of the main functions took place. The Ministry of Health and its 28 decentralized regional health care centres develop and implement comprehensive national health policy and national health programmes, define the goals and priorities of the health system, develop draft legislation, and plan and supervise the ongoing structural reforms. The Ministry is also responsible for the emergency care and public health care network throughout the country, owns and administers a number of national research centres, registers private health care establishments, and governs and administers the Executive Agency on Pharmaceuticals, which registers drugs and controls the country's pharmaceutical market.

Following the transition, Bulgarian health care switched to payroll-based tax revenue and established the semi-autonomous National Health Insurance Fund (NHIF) to raise revenue, allocate resources and fund providers. The Fund's operational activities have been decentralized to the regional level, to 28 regional health insurance funds. The NHIF finances the entire health care network for outpatient care and those hospitals with which it has stipulated a contract, and defines the amount of compulsory health insurance contributions.

A number of other ministries own, manage and finance their own health care facilities, including the Ministry of Defence, the Ministry of Internal Affairs and the Ministry of Transport.

The Supreme Medical Council is chaired by the Minister of Health and acts as a consultative body on health policy, hospital networks, national demographic problems, medical education and postgraduate medical training.

Privatization is another important feature of the health care reforms. The Health Care Establishments Act outlined procedures for privatization of both state and municipality

medical establishments. Starting in 1992, the locally elected municipalities took over ownership of most health care facilities. Private practice was legalized in 1991 and has since been expanding. The number of private inpatient establishments has increased from 32 in 2003 to 40 in 2004, and accounted for 16% of all hospitals and 2% of the total number of hospital beds (3). The private sector is also represented by private health insurance companies providing voluntary health insurance to the population. In 2006, there were 10 such companies.

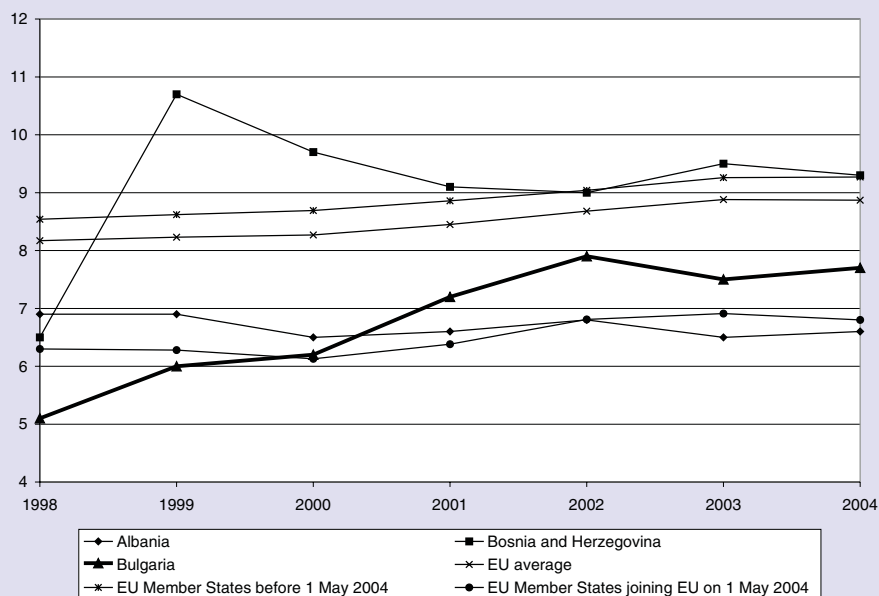
## **Health care financing and expenditure**

### **Health expenditure**

Total health expenditure has been increasing since 1998 (see Fig. 1), both as a percentage of gross domestic product (GDP) and in absolute terms. It accounted for 7.7% of GDP in 2004, i.e. it was higher than the 6.8% average of the EU10 countries (2). The increasing trend in health care spending reflects the improvements in the country's economy as a result of restructuring, efforts to obtain EU membership and better development of compulsory health insurance, bringing resources to the health system through compulsory contributions and legalization of private practice. There was also a notable increase in spending on health in absolute values. In 2004, twice as much was spent in international dollars per capita (US\$ 638 with purchasing power parity (PPP)) than in the year 2000 (US\$ 342 PPP) (2). This is still far below the EU average, but exceeds the per-capita health spending in Romania, the other country that gained accession to the EU in January 2007.

However, there was a general decline in levels of public health expenditure, accompanied by a relative increase in private sources from 34.6% in 1999 to 45.5% of total health financing in 2003 (4).

**Fig. 1 Total expenditure on health as a percentage of GDP in Bulgaria, selected countries and averages, 1998–2004, WHO estimates**



Source: WHO Regional Office for Europe, European Health for All database, June 2006 (2).

## Population coverage and basis for entitlement

The compulsory health insurance system represented by the NHIF is funded primarily from payroll-based contributions. State and municipal budgets cover low-income and socially disadvantaged sections of the population. Compulsory health insurance guarantees a basic benefits package defined by the National Framework Contract (5). There is also a group of individuals who are insured neither by their employer nor by the state or municipal budgets. In most cases these are low-income individuals in need of social assistance but not entitled to it, people living abroad, and high-income individuals paying out-of-pocket for their preferred services. According to NHIF estimates in 2006, approximately 1 million Bulgarian citizens are uninsured.

The voluntary health insurance market offers complementary insurance and also covers services provided as part of the basic benefits package for faster access and increased choice of benefits and providers.

## Sources of funds

Health care in Bulgaria is financed through compulsory and voluntary health insurance contributions, taxes, and formal and informal cost-sharing. Following the enactment of compulsory health insurance legislation in 1998, health insurance contributions began to be paid by employers and employees in 1999. The health insurance contribution was set at 6% of wages, with employer and employee contributions at a ratio of 80:20, to reach a 50:50 ratio by 2009 (6). The NHIF finances the entire outpatient care network and inpatient care on a contractual

basis. In 2004, the NHIF covered 55% of all public health care expenditure (7). The Ministry of Health funds emergency care and the public health network, national and regional specialized health institutions, national health programmes, medical research and international cooperation in health care. Municipalities raise their own revenue for health care and receive additional resources from the central Government. Municipalities continue to fund the non-contracted hospitals within their territory. It is expected that the health insurance share of hospital financing will increase, gradually replacing the share funded by state and municipal budgets. Also, as most funding for health care comes from household budgets, this includes out-of-pocket household payments representing about 45% of total health care financing in 2003 (4) and an insignificant share of payments through voluntary health insurance.

### **Payment mechanisms**

Until the reforms, provider organizations were allocated an earmarked budget, determined mainly on a historical basis according to the number of staff and beds and disaggregated by budget lines.

In 1998 the contractual system was introduced between the NHIF and health care providers as well as between municipal authorities and municipal health care establishments. Hospitals receive funding from the NHIF through case payments (clinical pathways), which was introduced in 2001 and is based on a single flat rate per clinical pathway. Municipalities continue funding all municipal hospitals regardless of whether they have a contract with the NHIF. However, they finance only a portion of the costs of contracted hospitals. Additional revenue flows to hospitals through compulsory patient co-payments. In the public inpatient sector health personnel are mostly salaried.

Reimbursement to general practitioners (GPs) is based on per-capita monthly payments per insured person on the patient list. Specialized outpatient care and laboratories are reimbursed by

means of fee-for-service payments for the services provided to patients. Dental care is mostly paid out of pocket, based on fee-for-service, although a limited number of dental services are included in the basic benefits package.

State health care facilities are funded by the state budget allocated by the Ministry of Health and personnel are salaried.

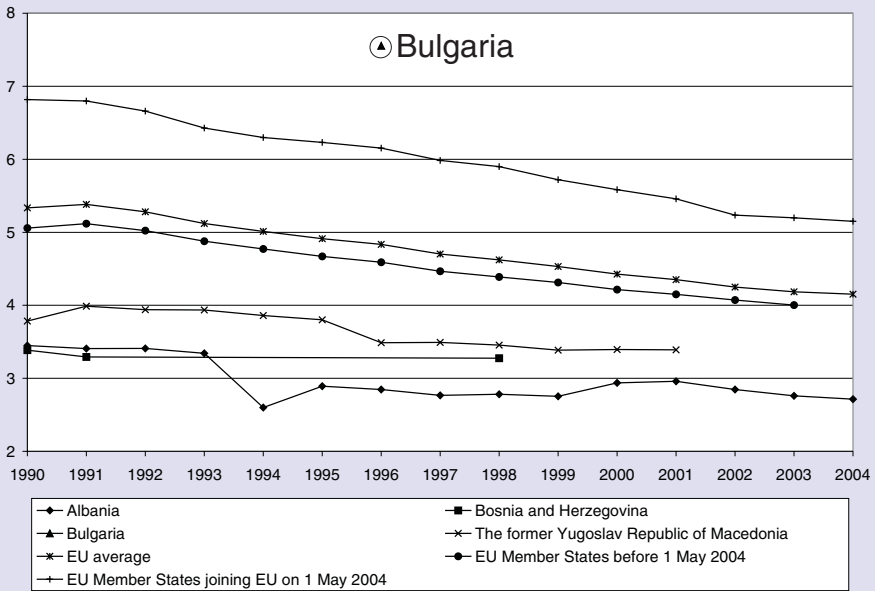
## **Physical and human resources**

In 2005 there were 262 hospitals, 46 dispensaries and 1554 outpatient health care facilities in Bulgaria. Despite a 48% reduction in the number of hospital beds in 1997–2004, the country still has a high ratio of beds to population (see Fig. 2). In 2004 there were 6.1 beds per 1000 population, which was higher than both the EU10 average (5.1) and Romania (4.4). The average length of hospital stay has decreased from 11.5 days in 2000 to 8.3 days in 2004 (2).

The number of specialists is still high compared to GPs, despite the introduction of new training courses and specializations in family medicine. In 2004 Bulgaria had approximately 68.9 GPs per 100 000 population, comparing to 245.9 specialist doctors per 100 000 population. The number of GPs is higher than the EU10 average (see Fig. 3), but the number of nurses is one of the lowest among all EU countries. Bulgaria was and still remains the country with the highest number of dentists in Europe (83.42 dentists per 100 000 inhabitants), which in 2004 almost twice exceeded the EU10 average (43.19 dentists per 100 000 inhabitants) and was 25% higher than the overall EU average (62.64 dentists per 100 000 inhabitants) (2).

Doctors are trained at five universities, and undergraduate medical education lasts for six years. After four years of residence and postgraduate qualification, doctors register their medical qualifications with the Ministry of Health

**Fig. 2** Acute care hospital beds per 1000 population in Bulgaria, selected countries and EU averages, 1990–2004



Source: WHO Regional Office for Europe, European Health for All database, June 2006 (2).

and are then issued a licence to practise by the Centre for Postgraduate Training at Sofia Medical University. All paramedical specialists receive training in 14 medical colleges. Their teaching activities and curricula were substantially upgraded by the EU PHARE project, which also introduced a Bachelor's degree programme for nurses and paramedical specialists. In 2001, two faculties of public health were established, offering Master's degree programmes in public health and health management; health management programmes were also offered at other universities.

## Provision of services

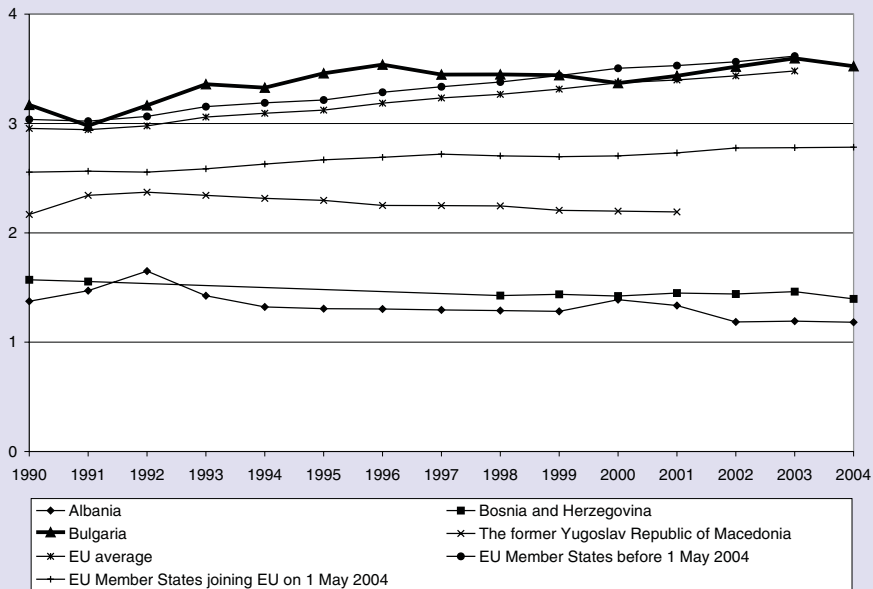
The legislation of 1998–1999 (Health Insurance Act, Professional Organizations Act and Health Establishments Act) regulates provision of services at all levels. Every citizen should be

covered by the compulsory health insurance scheme to receive a basic benefits package of health services determined and reimbursed by the NHIF. Health care is provided in accordance with the National Framework Contract (5).

## Public health

The system of public health retains the basic structure that has existed since 1950 when public health services were aimed at eradicating communicable diseases. The network of 28 Regional Inspectorates of Public Health Protection and Inspection covers the entire country, being a centrally managed, well-structured network administered and financed by the Ministry of Health. The Principal State Health Inspector of the Ministry of Health functions as a coordinator and methodological leader for provision of public health services within health care and in other sectors (parallel systems). Public health

**Fig. 3** Number of general practitioners (PP) per 1000 population in Bulgaria, selected countries and averages, 1990–2004



Source: WHO Regional Office for Europe, European Health for All database, June 2006 (2).

protection and inspection are also supported by three national centres of the Ministry of Health. Regional Inspectorates of Public Health Protection and Inspection, being relatively autonomous, use a multisectoral and multilevel approach in their work, developing effective collaboration with other institutions at national, regional and municipal levels.

### Primary ambulatory care

Since 1999 new types of primary and outpatient health institutions have been established, including single and group practices for primary health care; single and group practices for specialized medical and dental care; independent medical diagnostic and consultative centres; and medical-technical laboratories. Primary health care is provided by GPs in private practice, group practice and/or in outpatient departments. Patients that are referred to specialists for treatment following a clinical

pathway are paid for by the NHIF. Patients may self-refer to specialists but they then pay 100% out of pocket. The number of patient referrals to specialists is limited for each GP.

### Specialized ambulatory care and inpatient care

Health facilities that provide specialized ambulatory care are registered as individual and group practices for specialized medical care within separate medical subfields: health centres (medical and dental centres) containing at least three doctors/dentists who are specialists in different medical subfields; diagnostic and consultative centres containing at least 10 physicians in various specialties; and individual medical and diagnostic or technical laboratories.

Hospital care in Bulgaria is provided by public and private health facilities. The hospitals

are divided into multidisciplinary and specialized ones. National multidisciplinary and specialized hospitals are legally trading companies that are owned by the State. Interregional and regional hospitals are joint-stock companies with one part of the capital owned by the State and the other owned by the local municipality. Local hospitals are trading companies owned by the municipalities in which they are located.

### **Emergency care**

Since 2001 emergency care services cover the whole of the country and each of the 28 administrative districts has a Regional Centre for Emergency Care. The Ministry of Health is responsible for the organization, planning and financing of all activities related to the provision of emergency care. Despite the efforts made to reorganize emergency care during the reforms, this type of care is still characterized by inappropriate staffing patterns, with overspecialized physicians and undertrained paramedical staff.

### **Pharmaceutical care**

According to data from the Bulgarian Drug Agency, pharmaceuticals consumption has been increasing since 1999 and accounted for BGN 685.0 million (€350.1 million) in 2004 (8). The Pharmaceuticals and Human Medicine Pharmacies Act 1995 created the basis for the restructuring and privatization of pharmaceutical production and distribution, and most pharmacies are privatized. In 2005 there were 30 domestic pharmaceutical manufacturers, 330 wholesalers who imported and marketed pharmaceutical products for over 4518 pharmacies across the country and fewer than a dozen distributors (3). Bulgarian pharmaceutical manufacturers produce generic drugs and can directly market their products through authorized distributors or dealers.

The NHIF is the major purchaser of all pharmaceuticals in the country. It subsidizes outpatient drugs for vulnerable groups and pharmaceuticals for university hospitals, multidisciplinary hospitals, dispensaries and

haemodialysis centres. Priority reimbursable disease groups are for cardiovascular diseases, followed by neurological diseases. Central and regional budgets subsidize pharmaceuticals for people on low incomes, the unemployed, the retired, children and individuals in the armed forces.

### **Palliative care**

Palliative care is provided in hospices by a team including doctors, nurses, social workers, psychiatrists or psychologists (if needed), religious ministers (if requested) and volunteers. Everyone must attend the required training course, which is revised regularly. In 2005 there were 33 functioning hospices with a total of 287 beds (3). Some hospices provide certain aspects of palliative care at the patient's home. In 2003, the NHIF introduced a clinical pathway for palliative care for terminally ill cancer patients, providing reimbursement for a 20-day stay per year for patients needing specialized palliative care.

### **Mental health care**

Mental health policy is oriented towards multidisciplinary and community-based organizations integrated with social assistance, education and employment services. Mental health care is provided in ambulatory and inpatient facilities, dispensaries, state-run social support facilities, and nongovernmental and charitable organizations. Mental health care is characterized by a high number of beds and a shortage of qualified personnel, and better integration of mental health care services in social support programmes is needed.

Outpatient mental care is provided by GPs, but largely by psychiatric offices at ambulatory care facilities (diagnostic–consultative centres, and medical centres, and medical and dentistry centres) as well as in individual psychiatric practices. In 2003, the NHIF signed contracts with 427 psychiatrists (60% of the total number of psychiatrists in the country). Hospital care is provided by 11 state psychiatric hospitals (2750

beds), 12 psychiatric dispensaries (1524 beds), 11 psychiatric wards at multidisciplinary hospitals and 4 university psychiatric clinics (3).

## Dental health care

Dental care is provided by individual and group practices for primary or specialized dental care, as well as in dentists' surgeries and medical and dental centres. There were 56 dental centre surgeries and 44 medical and dental centres in 2004 (3). Dental care facilities enter into an agreement with the NHIF and provide services covered by the basic benefits package; they contract with voluntary health insurance companies or receive fee-for-service payments out of pocket. Hospital dental care is provided and reimbursed by the NHIF according to five clinical pathways.

## Health care reforms

The structural health care reforms were aimed at changing the health system financing methods to ensure a sufficient and sustainable health care budget and to guarantee equity in the public health sector; changing the allocation mechanisms and enhancing efficiency and quality of services; and reorganizing primary health care and rationalizing outpatient and inpatient facilities. Radical changes were introduced in the late 1990s within a relatively short period.

The health insurance system was introduced in 1998 when the Health Insurance Act was adopted as the legal basis for the introduction of both compulsory and voluntary health insurance. The National Framework Contract was introduced to provide a basic benefits package and to pay for health care services provided to the insured population. The contributions were set at 6% of an individual's monthly wage, shared between the employer and employee at a ratio

of 80:20. The State and the municipalities cover the contributions of pensioners and low-income population. The Health Insurance Act defines direct patient co-payments for using health care services covered by the basic benefits package. Since 2000, patients pay 1% of the minimum monthly salary for each outpatient visit and 2% of the minimum monthly salary per day of hospitalization, up to 10 bed-days per year (9). The compulsory health insurance system guarantees a basic benefits package of health care services to the insured population; however, this package is not clearly specified, which creates financial burden for the population.

Health care financing was separated from health care provision, and contract-based relations were established. The NHIF can reimburse both public and private facilities on a contractual basis.

Private practice was legalized in 1991 and involved privatization of dental practices, pharmacies, physicians' surgeries, laboratories, outpatient clinics and polyclinics. It also included procedures for privatization of both state and municipal health facilities. Public and private health care facilities were reorganized. Physicians and dentists took over the ownership of their single practices for primary and specialized medical and dental care. Group practices, medical centres, diagnostic–consultative centres, laboratories and hospices were established by the State or the municipalities as companies, cooperatives, shareholding or limited liability companies – either independently or jointly.

Restructuring of financing of the health system was followed by a strategy for restructuring payments to hospital sector providers and the introduction of a scheme based on performance and case payments (clinical pathways) with a single flat rate per diagnosis. The change in hospital financing was supposed to enhance the competition between the health care providers and increase the quality of services.



## Assessment of the health system

The health care reforms carried out in the late 1990s resulted, initially, in improvements in the health system. Establishment of the NHIF and a basic benefits package defined the services covered by the public sector and earmarked the revenue collected for health care, allowing greater sustainability of the health care budget. Legalization of private practice created competitiveness between health care providers as an incentive for increasing the quality of services. The restructuring primary care and the introduction of GPs as gatekeepers to specialized care allowed cost-containment, but led to a discussion of whether such policies dilute the principles of free provision and access to health care for the population.

The positive changes that took place during the reforms revealed the existence of political will and capacity in the country to undertake further changes. However, it was inevitable that the success was hindered by certain difficulties. Contribution-based financing of health care has not been able to provide enough funding for the system. The fact that 1 million people do not pay the compulsory health insurance contributions results in fewer contributors than beneficiaries, which has a potentially adverse effect on the balance of the NHIF. In order to cope with these difficulties the contribution rate is planned to be increased and the ratio of employer:employee contributions is intended to reach 50:50 by 2009 (5), in order to provide disincentives for the employer to escape paying contributions,

conceal the real income of employees or not to hire new workers. However, at the same time, the planned initiative led to a discussion of whether this might create additional financial burden for the population and public dissatisfaction with the health system.

Further changes in accreditation standards, clinical pathways and rules for good practice, on the Government's agenda for the period 2007–2012, will create better incentives for improving quality and effectiveness of services provision and will have a positive impact on sociodemographical and epidemiological challenges.

## Conclusions

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, as the reforms are intended to improve health status over the longer term.

Although a feeling of nostalgia for the older system of “free” health care persists, there is also broad recognition among Bulgarians of the need for reforms and the fact that an irreversible process of change has been set in motion. In order to increase public support for the reform process, the Government will focus on fine-tuning the major changes introduced in recent years, and on ensuring better quality of service delivery.

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The Health Systems in Transition (HiT) Profile in Brief for Bulgaria was written by Olga Avdeeva (European Observatory on Health Systems and Policies, Berlin) and last updated in January 2007. This HiT Profile in Brief builds on the full HiT profile for Bulgaria of 2007, written by Lidia Georgieva (MARSH BG; until July 2006 Medical University Sofia), Petko Salchev (Medical University Sofia; Vice Minister of Health 2003–2005), Rostislava Dimitrova (Political Advisor, European Parliament), Antoniya Dimova (Medical University Varna) and Olga Avdeeva (European Observatory on Health Systems and Policies, Berlin). The research director was Reinhard Busse (European Observatory on Health Systems and Policies, Berlin).

The Observatory gratefully acknowledges Lidia Georgieva and Petko Salchev for reviewing the HiT Profile in Brief.

The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Greece, Norway, Slovenia, Spain and Sweden, the Veneto Region of Italy, 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.