ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 5, Issue, 12, pp. 6292-6297, December, 2015

International Journal of
DEVELOPMENT RESEARCH

Full Length Research Article

THE NATIONAL HEALTH SYSTEM OF BULGARIA: MORE THAN 20 YEARS OF RADICAL REFORMS

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ARTICLE INFO

Article History:
Received 23rd September, 2015
Received in revised form
11th October, 2015
Accepted 26th November, 2015
Published online 30th December, 2015

Key Words:
National health system, Reforms, Public insurance, Bulgaria.

ABSTRACT

The paper examines the developments in Bulgarian health care since 1989. During this period the national health system underwent a major transformation from state health care to a public insurance system. This process has been accompanied by significant legislative, organizational and functional changes and is not completed yet. The article traces the problems accumulated over the years and the tough decisions regarding health care the government faces.

INTRODUCTION

The national health system in Bulgaria faces a number of serious challenges. Despite the ever increasing health expenditures, the level of dissatisfaction of the general population with the health system is high and on the rise. Patients' out-of-pocket health expenditures are steadily increasing during the last years. Bulgaria is one of three EU countries, along with Greece and Cyprus, which do not provide universal or near-universal access to health services for their population. Improving access to health care remains a major priority for the country. At the same time, the national health system is facing serious problems of both organizational and financial nature, as well as deteriorating demographic and health status of population. The death rate in Bulgaria is 14,4‰ (2013) which is significantly higher than the EU average (9,9‰); the situation is similar with the infant mortality rate which is 7,6‰ (2013) versus the EU average of 4,3‰. Life expectancy at birth stands at 74,4 years for 2013 in comparison to an EU average of 77,0 years for the same year. Age standardized mortality rate from cardiovascular diseases (592 per 100 000 population for 2013) is one of the highest in Europe.

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An extremely alarming trend is the steady increase in hospitalizations rate concomitant with the increase in the costs of hospital care.

Historical background

Until 1989 the Bulgarian national health system was organized along the lines of the "Semashko" (Soviet) model of healthcare. This model is characterized by centralized health administration, financing from general taxation, public ownership of health care facilities, free and equal access for all citizens to health care. Health care provision followed a national health map, meaning that all medical services had even territorial distribution, following population numbers and some demographic and epidemiological features. Primary care and specialized outpatient care were delivered by primary care centers, called polyclinics. Polyclinics in turn referred patients to the nearest hospitals. Patients were generally distributed on a residence basis to a district therapist, pediatrician and obstetrician-gynecologist. At the level of first contact with the medical professional patients consulted one of these specialists who reffered them if necessary to specialized levels of the system (specialists in the polyclinics or local hospitals). In rural areas primary health care was provided by smaller health posts manned by medical doctors or (if unavailable) physicians assistants, called along the Russian terminology feldshers.

It should be noted that dental care was also free and offered even in rural posts. Since referrals were not mandatory, often patients skipped the primary level and went directly to specialized outpatient care or even hospitals. Secondary level involved outpatient specialists in the same polyclinics and municipal hospitals. At the tertiary level some specialized and university hospitals could be found, mainly in larger cities.

Furthermore, a system to register, treat and follow-up patients with a number of chronic medical conditions (the so called dispensary groups) was established within the country together with a system for monitoring maternal and children health. Since the epidemiological transition was not fully over during the socialist period (and partly due to the influence of Russian epidemiology), the control of infectious and parasitic diseases remained a high priority and strict sanitary control measures were implemented along a comprehensive national system for sanitary control (Dimova, 2012; Rechel, 2006; Pahev, 2006).

In the late 1980s a health system organized to tackle primarily acute and communicable diseases had proved ineffective and inadequate for the emerging health needs and changed pattern of morbidity of a rapidly ageing population. The system also suffered from under financing due to sparing spending from the state on health care, plus the centralized forecasting of future health needs and demand for medical services proved inadequate. Inefficient functioning, ineffective use of the already scarce financial resources available, poor management at the hospital level, inadequate quality of medical care, uneven geographical distribution of health facilities and medical personnel in urban and rural areas, low wages in the health sector, deteriorating health and demographic status of population were typical problems plaguing the Bulgarian health system and developing hand in hand with the gradual collapse of communist society and general economical decline (Dimova 2007; Dimova, 2012).

In hindsight we can speculate that the general absence of market stimulate lead medical directors to general disinterest in modern management techniques; low and fixed wages in a strictly state owned health care completely demotivated medical personnel; the only way to provide doctors and nurses for the rural posts was using coercion (mandatory 2-year service periods after graduation); the economic decline of the USSR and its satellites hit disproportionally the public sector of the economy, since cuts in military spending and internal security were unthinkable.

The political changes in Bulgaria after 1989 marked the beginning of radical social and economical reforms. The transformation from a planned economy to market economy strained the social structures and proved to be a long and painful process for Bulgarian citizens. Discussion on the objectives, priorities, organizational and infrastructure framework of the health sector reform took about 10 years. The initial emotional rejection of communism and Bulgaria followed the advices of World Bank experts, replacing state health care with a system based on public insurance. These changes were justified with the autonomy and freedom of choice for patients, adding the benefits of competition among providers (Lawson, 2003). Finally, in the late 1990s the legal basis for the health reforms was provided by the adoption of the Health Insurance Act (1998), the Health Care Facilities Act (1999), the Act on Professional Organizations (1998) and the Public Health Act (2004). The health insurance system in Bulgaria was launched in July 2000. The pronounced goals of the health sector reforms were to assure adequate health funds, to improve the quality of care, and to improve the status and remuneration for health professions, while in the same time retaining universal and equal access to health services, as well as comprehensive primary health care (Dimova, 2012). In reality, both access to health care and primary care quickly deteriorated.

Table 1. Health expenditures in Bulgaria

	2000	2012
Total expenditure on health as % of gross domestic product	6,2	7,4
General government expenditure on health as % of total expenditure on health	60,9	56,3
Private expenditure on health as % of total expenditure on health	39,1	43,7
General government expenditure on health as % of total government expenditure	9,1	11,7
External resources for health as % of total expenditure on health	1,9	0
Social security expenditure on health as % of general government expenditure on health	12,0	76,4
Out-of-pocket expenditure as % of private expenditure on health	100	97,3
Private prepaid plans as % of private expenditure on health	0	1,0
Per capita total expenditure on health at average exchange rate (US$)	97	520
Per capita totalexpenditure on health (PPP int. $)	385	1171
Per capita government expenditure on health at average exchange rate (US$)	59	292
Per capita government expenditure on health (PPP int. $)	234	659

Source: WHO, 2015.

Table 2. Infrastructure and human resources for health

Indicator	Number
Hospitals	349
Number of hospital beds	51 505
Private hospitals	106
Number of beds in private hospitals	9779
Outpatient health facilities	1 931
Regional centers for emergency care	28
Physicians per 100 000 population	398
General practitioners per 100 000 population	63
Nurses per 100 000 population	447
Midwifes per 100 000 population	45

Source: National Statistical Institute, 2015; WHO Regional Office for Europe, 2015

Current situation

The legislative framework adopted in Bulgaria has established a "mixed" health system combining a public and private health sector with a variety of state, municipal and private health facilities. The health insurance system is based on compulsory national health insurance and voluntary private health insurance. National health insurance is part of the social protection for Bulgarian citizens and the sole National Health Insurance Fund (NHIF) is the primary public financing institution that administers approximately 70-80% of all public health funds. National health insurance pools financial recourses and purchases medical services on behalf of the population, providing every citizen a basic package of health services (Delcheva, 2007).

Voluntary health insurance is optional and is offered by licensed private insurance companies. Voluntary health insurance activity covers various risks associated with the low financial coverage or low quality of certain medical services and offers a variety of packages. Besides the compulsory and voluntary health insurance other sources of financing within the health system are national and municipal budgets, sponsorships and donations, legal co-payments from the patients and illegal out-of pocket payments.

Table 1. Health expenditures in Bulgaria

Health services are organized on three levels: primary, secondary and tertiary care, and are provided by a network of public and private providers.

Table 2. Infrastructure and human resources for health

At the primary level health care is provided by general practitioners. The so-called GPs are in reality family physicians working on contract with the NHIF and having a number of enrolled patients and package of services both set by the fund. GPs function as gatekeepers, referring their patients to outpatient specialist and inpatient care. Children and pregnant women have direct and free access to pediatricians and obstetricians.

The follow-up of pregnancy can still be performed both by a family physician or obstetrician. GPs provide basic examinations, diagnostics and treatment, family planning, disease prevention, immunizations and health promotion as well as prescription of medications from the Positive Drug List (generic drugs reimbursed fully by the NHIF). Patients are required to register into a GP's list and GPs are paid through a capitation method (i.e. according to the number of patients enrolled) also with fees for some specific services. Patients also pay a small co-payment called "user's tax" for each visit to their GP which amounts to 1% of the minimum wage but some categories of people are freed from co-payment such as children, pregnant women, people with certain diseases, medical professionals. GPs are obliged to be available around the clock and to provide urgent care (life-threatening conditions are still addresses by the state owned ER centers) and home visitations to their patients. GPs are independent and rarely form group practices, thus making impossible the 24-hour servicing of patients, theoretically required by law. Control by the NHIF is weak, consequently GPs rarely bother to perform home visits or prophylactic examinations. Generally speaking, the capitation method of payment is not an incentive for GPs to raise their qualification and actually treat patients, the more rational choice for a GP is to self-limit to issuing referrals to higher levels of health care. The deconstruction of the polyclinics of old (having receptions, affiliated specialists and laboratory blocks) in itself does not allow for modern and comprehensive care. All in all the primary care reform was a huge step back and an example of a poorly conceived and implemented reform, not based on any evidence.

The second level of care - specialized outpatient care is delivered in individual practices, group practices, medical centers or medical and diagnostic centers, most of which are private. Specialists contract the NHIF for provision of specialized packages with services within the scope of the basic benefit package. They are paid for each medical examination but only for the patients referred by GPs. For specialist outpatient care patients again pay the same "user's tax" as for GPs. Most specialists would group in the so-called Diagnostic and Consultative Centers (DCC) which would be better placed in hospitals, providing ambulatory care there for patients not requiring a hospitalization. The DCCs were formed in the transitional period because Bulgaria inherited too many specialists (many of them came from the closed polyclinics) from the old system and hospitals were reluctant to increase their staff. The newly formed unit of DCC complicated unnecessarily the health system: a patient is first referred from the GP to a DCC specialist, who in turn refers him to a hospital.

The third level of care, hospital care, is provided by public (state and municipal) and private hospitals. In general, around two third of Bulgarian hospitals are public and one third of them are private. The number of private hospitals has risen substantially in the past 10 years. At the beginning of the health sector reform in 2000 all hospitals were registered as commercial companies under the requirements of the Commercial Law. Public hospitals are owned by the state represented by the Ministry of Health or by regional and municipal authorities. Some hospitals are owned by other ministries, such as the Ministry of Defense, the Ministry of the Interior, the Ministry of Transportation and Communications, and even the Parliament. Such hospitals were typical of the Soviet Union and are inherited by the old system. They are not registered by the Commercial Law. Hospitals in Bulgaria can be multi-profile (with at least two specialized wards) or specialized, for acute treatment, for long term care or for rehabilitation. Bulgaria has a high number of hospital beds: 4,64 per 100 000 population in 2012, compared to an EU average of 2,83. Bulgaria also has one of the highest inpatient discharges rates in the EU with 27,94 (2012) inpatient discharges per 100 people, while the average for the EU is 17,55 per 100 (2012). Currently, acute care hospitals prevail, while the number of hospitals (and hospital beds) for long-term care and rehabilitation is insufficient. In turn this means that the structure of hospital care is completely irrelevant to the demographic and epidemiological features of the Bulgarian population, therefore its health needs. Bulgaria is in the top 20 of the world's most aged nations.

The mean age of the population is 43 years and rising; the percentage share of the population aged over 65 is significantly higher than the share of the population under 15. Almost all hospitals contract the National Health Insurance Fund, regardless of the form of ownership (public or private). Hospital care financing is analogous to the widely used diagnostic related groups (DRGs). The system of reimbursement of hospitals uses the so-called clinical pathways, which are sets of defined requirements and instructions for hospital diagnostic procedures, treatment procedures and interventions according to the patients' diagnosis. In general, the National Health Insurance Fund is the main source of funding for hospital care. The Ministry of Health finances exclusively only inpatient psychiatric care (Bedrozova, 2005). However, state and municipal hospitals may receive subsidies from the central or municipal budgets. Hospitals can also contract private health insurance funds and receive out of pocket payments for services not covered by the national health insurance scheme (Shtereva, 2012).

Patients in hospital care also pay a small user's tax in the amount of 2% of the minimum wage per bed-day, but for no more than a 10 days hospital stay. Our overall conclusion is that changes in the provision of hospital care were beneficial to the patients: the quality of hospital care is significantly higher than in the communist era, and most state and municipal hospitals are not financially accessible, even though private facilities are accessible only to the newly formed (and thin) middle class.

Emergency care in Bulgaria is inherited by the communist state and remains practically unchanged. It is provided by two types of health facilities: regional centers for emergency care (RCEC) in each of the 28 administrative districts and hospitals' emergency wards. RCECs are public establishments, financed by the Ministry of Health. They provide emergency care to ill and injured people at home, on the spot of the incident and during transportation to the hospital. All health care facilities in Bulgaria are obliged to provide emergency medical procedures free-of-charge, regardless of patient citizenship, address or social security status. The RCECs remain grossly underfunded by the state, ambulances are old, emergency teams are undermanned because of low salaries, and consequently, reaction times after incidents are long. The prescribed reaction times of 15 minutes (for life-threatening conditions) and 45 minutes for the rest are rarely achievable. Generally speaking, a poorly performing emergency care during communism, deteriorated even further.

Perhaps, emergency care is the place where energetic reforms and movement in the direction of private initiative and competition among the basic medical transportation teams, could help. In Bulgaria people insured under national health insurance scheme receive medicinal products covered totally or partially by its budget according to the Positive Drug List defined by Ministry of Health. The state subsidizes pharmaceuticals for the inpatient care of oncological patients, those with certain infectious (for example, tuberculosis) and rare diseases as well as dialysis and transplantation patients. The Positive Drug List comprises four groups of medicinal products: outpatient drugs reimbursed by the NHIF; pharmaceuticals purchased by public hospitals which are not included in the basic benefit package; pharmaceuticals for oncological and rare diseases as well as for dialysis and transplantation patients, which were financed by the Ministry of Health through the state budget until 2011 and are now funded by the NHIF; pharmaceuticals for some infectious diseases financed by the Ministry of Health through the state budget (EOHSP, 2015).

DISCUSSION

The state of the health system in Bulgaria is currently defined by most observers as critical. The economic crisis and inconsistent state policy have a negative impact on the sector. The pressure from the unfavorable demographic situation is heavy: low birth rate, high death rate, negative natural increase, ageing population, emigration of young people of reproductive age. We observe the constant deterioration of demographic, but also of social and health indicators with a significant difference between the urban and rural population.

According to a report of the Bulgarian Industrial Association additional aggravating factors are the bureaucracy, corruption and deformed national security system; the end result is the state inability to ensure access to health care (besides emergency care) to almost one third of the Bulgarian population (BIA, 2014). According to the National Health Strategy 2014-2020 allocation of structures of the national health network continues to be uneven with increasing territorial disparities. Moreover, interaction and coordination between primary care, specialized outpatient care, inpatient care, rehabilitation, long-term care are impaired or completely lacking. Activities on health education, prevention and health promotion are limited in scope and funding.

The adopted national health insurance model has a significantly higher price than the old model and the foreseen range of public health services delivered to the population within this model by far exceeds the available public recourses. The existing health legislation is fragmented and contradictory, a result of dubious and hasty repairs during the years. The transformation of health facilities into commercial companies through the implementation of the Commercial Law is an example of improper application of market mechanisms in the public sector of the economy (Ministry of Health, 2015).

Public health expenditures as a share of GDP amount to about 4%, with an average of 7% for EU countries but even they are ineffectively spent. Moreover, in recent years the state withdraws further from the financing of the system and a large part of the activities previously funded by the state, are already covered by the NHIF, including prevention, promotion, control of public health, dialysis, intensive care, medicines for the treatment of cancer, while at the same time the annual budget of NHIF remains almost constant (BIA, 2014). The absolute increase in health expenditures does not result in improvements in the health status of the population, which means that the financial parameters of the system provide incentives to the "medical professionals to work quantitatively, not qualitatively" (ISI, FES, 2015). A typical issue with public health insurance "the German way" is that patients and diseases are treated in hospitals on paper, because this is how

the NHIF checks performed medical activities. The share of out-of-pocket health expenditure of Bulgarian citizens and their families has also increased, as well as the size of illegal payments and corruption. The number of medical facilities is increasing and this creates conditions for over-delivery of medical services and activities which are expected to turn profitable like cardiac surgery and which spend around 30% of the NHIF budget for hospital care (World Bank, 2015).

The funds allocated for hospital care have steadily raised and there is a disproportion in the NHIF budget for funds allocated for hospital care and medications at the expense of primary care which represents a priority only on paper. Another problem is the regional over-concentration of funding for hospital care which results in imbalances in the allocation of funds for hospital care across regions and, hence - in the quality of medical services in them (BIA, 2014). Most hospitals in the country do not have the necessary modern equipment and personnel. As a result, there are very serious regional disparities, thus depriving the population of small and medium-sized municipalities from equal access to qualified medical care. Typically, modern hospitals can only be found in the large cities of Sofia, Plovdiv, Varna and Pleven. There is no consistent policy on human recourses in health care, which leads to problems in the numbers, structure and regional distribution of medical specialists in different fields. For example, in whole regions of the country certain medical specialties such as pediatricians, anesthesiologists, epidemiologists, pathologists are very limited in number.

Ongoing reforms

The need to reform the health system receives national consensus, although there are differences in terms of goals and ways. According to the Ministry of Health a serious barrier to future reform represents the myth of unlimited free access to medical care within the population (an idea inherited from communism), as well as the newer idea of unlimited remuneration amongst medical doctors (Ministry of Health, 2015).

The new concept of health reform includes three main aspects: increasing (again) the state's role in regulating the processes and resources in the health system; improving the integrity, structure and efficiency of the national health system; creating new public and individual approach to health as a right and responsibility of the individual; and adopting consensual approach in health policy decisions making. At the same time, the mandatory solidarity model of health insurance will be maintained, as well as NHIF as the only institution pooling funds from the compulsory health insurance. The main activities are aimed at: improving the population's access to outpatient care and ensuring 24-hour access to medical care; allowing free access to specialists outpatient care without referrals from GPs introducing one-day hospitalizations and one-day surgery, which are not currently regulated in hospitals; opening emergency rooms with beds for short-term monitoring; introducing mandatory national health map for the health facilities having contract with NHIF (it has already impossible for NHIF to fund all newly appearing private hospitals); modernizating hospitals; introducing DRGs as a mechanism for funding hospital care (clinical pathways are very restrictive when prescribing the "correct" treatment algorithms); developing national eHealth system and implementing an integrated information system linking real-time information systems of institutions and providers (Ministry of Health, 2015).

The problems that the Bulgarian health system manifests are results of inconsistent and partial policies pursued in the sector over the last 15 years that have led to the accumulation of structural and financial problems (or have we taken a wrong turn altogether?). Their resolution requires a political will and national consensus. Changes in the context of the health sector reform should result in stability for the system, better health status of the population, as well as higher quality of life. But whether the general reform of the Bulgarian health system will be deemed successful (or even sensible) in the long run is still a question. To some of the involved local experts all radical reforms in the conservative public sector and the adoption of "best practices" on the advice of foreign experts, seem like a compromised idea already.

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