

The Health System in Bulgaria: An Overview



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1. Introduction

Bulgaria is situated in south-east Europe in the eastern part of the Balkan Peninsula. It covers an area of approximately 111 000 square kilometers and had a population of 7.6 million in 2009. The country is a parliamentary representative democratic republic with a multi-party system and free elections. In the last 20 years, demographic development has been characterized by population decline, a low crude birth rate, a low fertility rate, a high mortality rate and an ageing population. A stabilizing political situation since the early 2000s and an economic upsurge since the mid-2000s were important factors in the slight increase of the birth and fertility rates and the slight decrease in mortality. The global economic crisis led to a decline of GDP of 5.5% in 2009. In the same year, GDP per capita in purchasing power standards (PPS) was still the lowest in the EU, being 41% of that of the EU27 average. With social and living conditions indicators being this unfavorable, the main challenge for the country is to catch up with the more developed Member States. Its success depends to a large extent on improving competitiveness and structural reforms, also in the health system, to stimulate growth.

Life expectancy at birth has been increasing and reached 73.3 years in 2008. In general, Bulgaria is behind EU averages in most mortality and morbidity indicators. In 2009, the main three causes of death in Bulgaria were diseases of the circulatory system (66.0% of all cases), malignant neoplasms (15.9%) and diseases of

the respiratory system (3.8%). Although infant mortality and under five mortality have been decreasing by 5–6% a year in the last decade, this indicator still lags behind the EU12 and EU27 averages. However, insufficient progress in the decline of some of the sub-types of child mortality may point to deficiencies in the health system. One of the most important risk factors is smoking. Unsurprisingly, the average SDR for smoking-related causes in 2008 was twice as high in Bulgaria compared to the EU15.

1.1. Geography and Sociodemography:

Bulgaria (the country's official name is the Republic of Bulgaria) is situated in south-east Europe, in the eastern part of the Balkan peninsula, along the Black Sea. It is a comparatively small country, with a total area of approximately 111 000 square kilometers (National Statistical Institute, 2009). Bulgaria's longest boundary is with Romania to the north. To the west its neighbors are Serbia and Macedonia. Greece and Turkey border the country to the south and the Black Sea is its natural eastern boundary (Fig. 1.1).

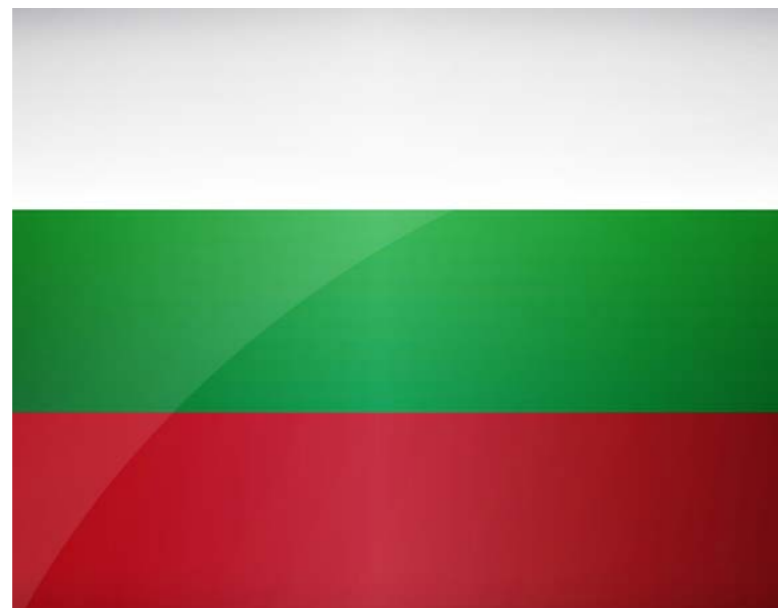


Fig. 1.1
Map of Bulgaria



Source: United Nations Statistics Division, 2012.

Bulgaria offers a highly diverse landscape: the Balkan Mountains cross the country east–west; the north is dominated by the vast Danube plain and the south and south-west by highlands and elevated plains. In general, almost a third of the country territory is plain and some 28% mountains, the rest being lowlands and hilly areas. As Bulgaria is on the border between the temperate and Mediterranean climatic areas, the part north of the Balkan Mountains has a temperate continental climate, while the influence of the Mediterranean is strongly felt in the southern part. The Black Sea has local influence in the coastal areas, forming specific mild maritime climate conditions. The country is divided into 28 districts while 6 regions were also created by the 2008 Law

of Regional Development (North-western, North-central, North-eastern, Health systems in transition Bulgaria 3 South-western, South-central South-eastern). Although Bulgaria has no administrative regions, the term “regional” is often used in English to signify the decentralized aspect. At the end of 2009, Bulgaria had a population of 7.6 million with a slight majority of women, 51.7% (see Table 1.1). According to the latest population census from 2011, the vast majority of Bulgarian citizens are ethnic Bulgarians, who constitute 84.8% of the population. Turks form an additional 8.8%, Roma 4.9%, and other traditional ethnic minorities (Armenian, Greek, Jewish, Russian, Tatar and others) 1.5% (National Statistical Institute, 2011c). In the 2011 Census, 76% of the population responded that they were Eastern Orthodox Christian, 10% Muslim and 14% other or did not state their religion. The share of people living in urban areas has been steadily increasing and in 2009 it was 71.4%. The population density is 70.2 people per square kilometer.

In general, the demographic development in Bulgaria has been among the major challenges in the last 20 years. Table 1.1 provides some basic sociodemographic information about the country. The data indicate a steady decline of its permanent population. As of 1988, the natural increase of the population has been negative and the total population has shrunk by some 1.4 million between 1988 and 2009.

Table 1.1

Trends in population/demographic indicators, selected years

	1980	1990	1995	2000	2005	2009
Total population (millions)	8.9	8.7	8.4	8.1	7.7	7.6
Population, female (% of total)	50.2	50.7	51.0	51.3	51.5	51.7
Population aged 0–14 (% of total)	22.1	20.3	17.9	15.7	13.7	13.4
Population aged 65 and above (% of total)	11.9	13.1	15.1	16.6	17.2	17.4
Population growth (annual %)*	0.4	-1.8	-0.4	-1.8	-0.5	-0.5
Population density (people per sq km)	80.1	78.8	75.9	72.9	71.2	70.2**
Fertility rate (births per woman)	2.1	1.8	1.2	1.3	1.3	1.6
Birth rate, crude (per 1 000 people)	14.5	12.1	8.6	9.0	9.2	10.7**
Death rate, crude (per 1 000 people)	11.1	12.4	13.6	14.1	14.7	14.2**
Age dependency ratio (dependants to working-age population)	51.5	50.3	49.2	47.7	44.7	44.7
Age dependency ratio (aged 65+ as % of working-age population)	18.0	19.8	22.5	24.5	24.8	25.2
Age dependency ratio (aged 0–14 as % of working-age population)	33.5	30.5	26.7	23.1	19.9	19.4
Urban population (% of total population)	62.1	66.4	67.8	68.9	70.2	71.4
Literacy rate in population aged 15 and above (%)*	95.1	97.2	97.9	98.4	n/a	n/a

Sources: World Bank, 2010. * WHO Regional Office for Europe, 2010. ** National Centre of Health Informatics, 2010. Notes: n/a = not available; *Compared to previous year.

In 2009, the absolute number of natural decrease was 33 687 people, which was the smallest population decrease as a result of natural causes after 1995 (National Statistical Institute, 2009).

Bulgaria has an ageing population, which is common in EU Member States. The number and share of the population under 15 years of age continues to decrease, whereas the share of the population over 65 years increases. While the relative share of people younger than 15 years was 22.1% in 1980, it dropped to 15.7% in 2000 and 13.4% in 2009. The percentage of people aged 65 and above is constantly rising, from 11.9% in 1980 to 16.6% in 2000 and 17.4% in 2009. The two immediate causes for the population decline are the negative net international migration and negative population growth.

However, more fundamental factors of political and economic nature have led to this decline. Hundreds of thousands of ethnic Turks left for Turkey in the second part of the 1980s due to a communist regime policy forcing them to adopt Bulgarian names. In addition, hundreds of thousands of Bulgarians, many of them young and educated, emigrated to the West in the 1990s to escape the lack of economic opportunity resulting from the painful transition from a centrally planned economy to a market economy. Another related factor is the sharp decline in living standards in the mid-1990s, which led to a low crude birth rate, low fertility rate and high mortality rate.

As a result of the stabilization of the political situation in the 2000–2001 period and the economic upsurge in the second half of the 2000s, a slight increase of the birth and fertility rates can be observed. In 2008, Bulgaria registered its highest birth rate in 14 years: 78 283 born children were registered, 99.3% of whom were live-born. In comparison with the previous year, their number increased by 2363 children and in comparison with 2001, by 9000 (National Statistical Institute, 2010a). The number of births and the crude birth level continued to increase in 2009, with 81 572 children registered – an increase of almost 12 300 children compared to 2001. While in 2000 the average number of births per woman was 1.3, it had increased to 1.57 by 2009. Although this figure remains below replacement level (2.1), Bulgaria’s fertility rate is the same as the EU27 average (1.57) and a little below the EU15 average (1.6). Bulgaria is thus catching up with a number of European countries, including Greece, Romania and Latvia, and is ahead of countries such as Germany, Austria and Italy. However, it is still far behind the EU countries with the

highest fertility rates – Ireland, Norway and Finland (WHO Regional Office for Europe, 2010). In general, the increasing fertility rate has only a small effect on slowing down the negative population growth.

A slight decreasing trend in mortality began in 2007. The number of deaths in 2009 (108 068) was lower than in 2008 (110 523) and 2007 (113 004). The crude death rate, which had reached a high of 14.8 per 1000 population in 2007, decreased by 0.3 in 2008 and by a further 0.3 in 2009, reaching 14.2 Health systems in transition Bulgaria 5 per 1000 population (National Statistical Institute, 2009a; 2010). This figure is considerably higher than in most other European countries, where this indicator was within the 9.0 and 10.2 per 1000 population range in 2009. In Bulgaria, the male crude death rate (15.8 and 15.5 per 1000 people in 2008 and 2009) was higher than the female crude death rate (13.3 and 13.1 respectively).

1.2. Economic Context

Similar to many of the countries in central and eastern Europe, the current situation in Bulgaria can be better understood in the context of the deep transformation after the demise of communism. However, the reform pace in different countries has been uneven and they have displayed widely diverging performance patterns.

In Bulgaria, a series of reforms was launched as early as 1991, including price liberalization, liberalization of foreign trade, abolition of central planning and market liberalization. But compared to some other countries, the reform pace was slow, economic policies were inconsistent, and privatization was unsubstantial and delayed. As a result, Bulgaria plunged into a severe and profound transition crisis in 1996/1997 (Dobrinsky, 2000), which was characterized by a dramatic deterioration of all macroeconomic indicators. The uniqueness of this crisis was that it combined a fiscal crisis, a banking crisis and a currency crisis. The cumulative decline of GDP in these two years was more than 18% and at the beginning of 1997, the country experienced hyperinflation (1058%) (World Bank, 2010). The economic collapse triggered a political crisis and a drastic change in economic policy consisting of an acceleration of privatization, financial stabilization measures, bank rehabilitation and business restructuring. The most important change was the introduction of the Currency Board. An extreme version of a fixed exchange rate monetary policy regime replaced the

active monetary policy. The local currency was fully covered by foreign currency reserves.

Initially, the Bulgarian lev (BGN) was pegged to the German mark and later to the Euro. The Currency Board has been a pillar of stability and an eventual joining of the Euro zone is considered one of the main goals.

In the beginning of the new decade, particularly between 2004, when Bulgaria’s accession to the EU was agreed upon, and 2008, the country experienced an economic boom.

Real GDP grew by more than 6% annually in the period 2006–2008 (Eurostat, 2010), which led to some narrowing of the income gap with Western Europe. The acceleration of capital flows and the credit boom were the two main sources of growth. Both were driven by the confidence-inducing effect of the Currency Board and the expectations of Bulgaria’s impending membership of the EU. GDP growth was to a large extent due to the non-tradable sectors, such as financial services, real estate and construction, in particular.

The global economic downturn had a severe effect on the Bulgarian economy. In 2009, GDP contracted by 5.5% (see Table 1.2), which was above the EU27 average of 4.2% (World Bank 2010). The labor market worsened considerably as the downturn led to a fall of employment. In the same year, the number of employed people aged 15–64 years decreased by 3.1% and the employment rate for the same age group fell by 1.4%, reaching 62.6% (National Statistical Institute, 2010a). At the same time, the economic crisis brought about an adjustment of some of the imbalances. Inflation decelerated considerably from 12% in 2008 to 2.5% in 2009 (Bulgarian National Bank, 2010). Due to weaker domestic demand, imports decreased by 22% in real terms. The decrease in exports was lower, which resulted in an improvement of the foreign trade balance and current account balance. The

Table 1.2

Macroeconomic indicators, selected years

	1980	1990	1995	2000	2005	2009
GDP (current US\$, millions)	20 039	20 726	13 107	12 599	27 188	47 100
GDP PPP (current international US\$, millions)	24 651	47 328	46 786	49 592	71 438	97 755
GDP per capita (current US\$)	2 261	2 377	1 560	1 563	3 513	6 210
GDP per capita, PPP (current international US\$)	2 782	5 429	5 570	6 153	9 230	12 888
GDP growth (annual %)*	–	-9.1	2.9	5.7	6.4	-5.5
Public expenditure (% of GDP)	–	53.5	39.4	32.3	33.3	30.9*
Cash surplus/deficit (% of GDP)	–	-5.1	-5.1	-0.4	3.4	n/a
Value added in industry (% of GDP)	54.5	49.2	35.5	30.7	29.4	30.3
Value added in agriculture (% of GDP)	14.6	17.0	14.5	14.2	9.4	6.0
Value added in services (% of GDP)	30.9	33.8	50.0	55.1	60.2	63.7
Labour force (total, millions)	4.5	4.1	3.8	3.6	3.4	3.6
Unemployment (total, % of labour force)*	–	–	15.7	16.2	10.1	6.8
Real interest rate*	–	–	10.5	4.4	1.2	7.0
Official exchange rate (BGL per US\$)	–	–	0.07	2.1	1.6	1.4

Sources: World Bank, 2010; *World Bank, 2011; †2008
Note: n/a = not available.

downturn had an impact on the budgetary balance as well. It swung from a surplus of 1.8% of GDP at the end of 2008 to a deficit of 3.9% in 2009 (Eurostat News Release, 2010) as the measures to restrict expenditures and improve tax compliance were insufficient to offset the substantial revenue decrease.

Unlike some other transition countries in central Europe, Bulgaria has made less progress in terms of convergence to EU living standards. In 2009, its GDP per capita in PPS was still the lowest in the EU: 41% of that of the EU27 average compared to Romania’s 45%, Poland’s 61% and Hungary’s 63% (Eurostat News Release, 2010). In 2008, the at-risk-of-poverty rate (21%) was one of the highest in the Union, with only Latvia (26%) and Romania (23%) faring worse and the at-risk of poverty rate for children aged 0–17 (26%) was among the highest in the EU. The risk of poverty faced by people aged 65 or over stands at 34% in Bulgaria, as opposed to 4% in Hungary, 12% in Poland and 19% in the EU27 (Eurostat News Release, 2010).

In 2008, Bulgaria was also the EU country with the highest material deprivation rate² – more than 50%, with the rate for the elderly being 22% higher than for the whole population (Wolff, 2010). The main challenge faced by the country is to sustain a quick catching-up process with the more developed Member States. This depends to a

large extent on structural reforms to stimulate growth and competitiveness. Examples of such reforms include education and pension reform as well as urgently needed health care reform.

1.3. Health Status

Life expectancy at birth has been increasing in all EU countries. The same is true for Bulgaria where average life expectancy at birth has been increasing since 1970, with the exception of a small dip between 1989 and 1997. In 1980, it was 71.2 years, while in 2008, it became 73.3 years. The discrepancy between men and women is substantial. Between 2007 and 2009, life expectancy for men was 69.8 and that for women was 77.0 (see Table 1.3). As in some other countries in the former eastern bloc, Bulgaria experienced a mortality crisis in the early 1990s (Nolte, McKee & Gilmore, 2004) with life expectancy reaching a low of 70.4 years in 1997 (World Bank, 2010). After the end of communism, mortality indicators for both men and women deteriorated, but much more substantially for men (see Table 1.3). As a result, there was a slight dip in life expectancy. In general, Bulgaria lags behind EU27 averages in most mortality and morbidity indicators. In 2008, life expectancy was six years below the EU27 average (79.5), almost seven years below the EU15 average (80.7), and slightly more than a year below the EU12 average (75.0), but comparable to Hungary (74.0) and Romania (73.4) and only slightly lower than that of Poland (75.5) (WHO Regional Office for Europe, 2010).

Data suggest that, as is the case with other transition countries, the population of Bulgaria has both a shorter life expectancy and a shorter expected lifespan in good health than populations in western countries. For the EU15, the average of years spent in good health in 2002 was 70.1 years (WHO, 2009b), while for Bulgaria, it was 66 years,

Table 1.3
Mortality and health indicators, selected years

	1980	1990	1995	2000	2005	2008
Life expectancy at birth, total (years)	71.2	71.6	71.1	71.7	72.5	73.3
Life expectancy at birth, male (years)	68.5	68.3	67.4	68.2	69.0	69.8
Life expectancy at birth, female (years)	74.0	75.2	74.9	71.3	76.2	77.0
Total mortality rate, adult, male (per 1 000 male adults)	189.9	219.3	245.3	224.9	220.6	213.0*
Total mortality rate, adult, female (per 1 000 female adults)	98.6	98.0	99.9	98.8	92.1	90.6*

Source: World Bank, 2010.
Note: *Number for 2007.

63 for men and 69 for women, in 2007 (Table 1.4). The estimated disability-free life expectancy (DFLE) was 66 in 2007 compared to 71.7 for the EU27 average, 73.0 for the EU15 average and 66.7 for the EU12 average (WHO Regional Office for Europe, 2010).

Table 1.4
Health-adjusted life expectancy (HALE), selected years

	2002	2007
Healthy life expectancy at birth (HALE), both sexes	65	66
Healthy life expectancy at birth (HALE), male	63	63
Healthy life expectancy at birth (HALE), female	67	69

Sources: WHO, 2008; WHO, 2009b.

An analysis of the causes of mortality in Bulgaria (see Table 1.5) shows that similar to many other European countries, the main causes of death are the diseases of the circulatory system. The SDR for these diseases has been fluctuating since the 1980s, with a peak in 1997 and 1998 (814.1 and 813.1 respectively – not shown in the table) and decreasing ever since. However, in 2008, it was still the highest in the EU with 611.3 deaths per 100 000, which was 1.4 times higher than the EU12 (439.9), 2.5 times higher than the EU27 (240.4) and 3.3 times higher than the EU15 average (188.3) (WHO Regional Office for Europe, 2010). This unfavorable trend can be attributed to prevailing unhealthy habits and behavior (unbalanced diet, high rate of smoking and low physical activity), psychosocial factors, and insufficient health promotion, prevention and treatment of risk factors.

Malignant neoplasms (cancer) have been the second most common cause of mortality in the last couple of decades. In 2008, the SDR for malignant neoplasms in Bulgaria (171.6) was slightly below the EU27 average (173.6), well below the EU12 average (199.4), but above the EU15 average (166.9). However, in contrast to the falling malignant neoplasms SDR in the EU, Bulgaria's SDR has been increasing since 2000. Deaths attributable to external causes (injury or poisoning) and respiratory diseases are at a comparable level. In 2008, the SDR for external causes was 44.9, which is higher than

the EU27 average (38.7) and the EU15 average (32.9) but much lower than the EU12 average (61.0). The SDR for respiratory diseases was 41.6, slightly lower than the EU27 and EU15 averages of 44.5 and 44.9, respectively (WHO Regional Office for Europe, 2010). In 2009, again, the main three causes of death in Bulgaria were diseases of the circulatory system (66.0% of all cases), malignant neoplasms (15.9%) and diseases of the respiratory system (3.8%) (National Centre of Health Informatics, 2010).

Table 1.5
Main causes of death, selected years (SDR, all ages per 100 000)

Causes of death	1980	1990	1995	2000	2005	2008
All causes	1 162.1	1 138.3	1 170.3	1 145.8	1 065.3	995.4
Infectious and parasitic diseases	7.2	5.89	7.06	8.59	7.3	6.9
Tuberculosis	3.9	2.1	3.4	3.4	2.9	2.4
Diseases of the circulatory system	638.0	691.3	725.6	737.1	677.4	611.3
Ischaemic heart disease	185.3	230.1	234.8	193.6	163.1	126.0
Malignant neoplasms	136.9	152.4	161.6	150.1	171.0	171.6
Cervical cancer	3.9	5.2	6.6	6.9	6.9	7.0
Breast cancer (female)	16.6	21.1	22.6	21.8	23.6	23.3
Cancer of the trachea, bronchus and lung	27.0	30.7	33.2	29.0	34.6	34.5
Diabetes	11.2	17.7	21.1	19.1	16.5	18.1
Mental disorders, diseases of the nervous system and sensory organs	7.2	8.3	11.2	11.0	9.6	11.0
Diseases of the respiratory system	107.8	68.4	56.1	46.8	43.6	41.6
Diseases of the digestive system	27.6	33.6	37.2	30.0	33.1	34.8
External causes (injury and poisoning)	61.1	60.9	62.7	52.4	45.0	44.9
Transport accidents	16.0	18.4	14.8	11.7	10.8	13.4
Suicide and self-inflicted injury	13.7	14.1	15.5	15.0	10.7	10.1

Source: WHO Regional Office for Europe, 2010.

Chronic non-communicable diseases have been a problem that Bulgaria has been tackling for decades. In 2008, the morbidity rate for diseases of the respiratory system accounted for 38% of all diseases, followed by diseases of the nervous system, diseases of the circulatory system, injuries and poisoning (Ministry of Health, 2008b). Cancer incidence per 100 000 rose from 285.1 in Health systems in transition Bulgaria 13 1995 to 320.1 in 2000 and 426.0 in 2008 (WHO Regional Office for Europe, 2010). The Bulgarian incidence of tuberculosis has been fluctuating. After a steady decline in the 1980s, it started rising and almost doubled in the 1990s, from 25.1 cases per 100 000 in 1990 to almost 50 in 1998. The backlash in tuberculosis incidence in the 1990s can be partly attributed to deteriorating economic conditions and related factors such as poverty, social tension and undernourishment. Since the first half of the 2000s, this rate has been falling and reached 38.6

in 2008. Although this is comparable to the EU12 average (37.5), it is more than twice the EU27 average (14.1) and more than four times the EU15 average (7.9).

The prevalence of long-term illness and disability is an important indicator of the population's health status. The number of new invalidity/disability cases per 100 000 has been at a high level since the early 2000s. In 2004, it peaked at 1589.0 per 100 000 and although it has been a decreasing trend since, Bulgaria still had 734.5 such cases in 2008. Although comparisons between countries are difficult because of national specificities in definitions and legislation, the differences between the number of such cases in Bulgaria and that in Hungary (269.4), Poland (137.9), the EU27 average (563.4 in 2007) and the EU12 average (324.2) are substantial (WHO Regional Office for Europe, 2010).

The HIV incidence per 100 000 is comparatively low in Bulgaria: 0.6 in 2000, 1.1 in 2005 and 1.6 in 2008, compared to the averages of 5.3 for the EU27, 2.5 for the EU12 and 6.0 for the EU15 in

2008. However, the prevalence of HIV infections increased from 49 in 2000 to 125 in 2007. Altogether, between 1986 and 2007 there were 816 registered cases of people with HIV, 180 of whom developed AIDS. According to the health authorities there is an increase in registered cases after 2004, which is largely due to active tracking and provision of HIV prevention services under the HIV/AIDS Prevention and Control Program financed by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Ministry of Health, 2008c; United National Development Program Bulgaria, 2008). One third of the new registered cases in recent years are people under 25, while the age in certain cases is as low as 16 years. The majority of new cases are registered in 4 of the 28 districts: Sofia, Plovdiv, Varna and Bourgas.

One of the most important risk factors affecting the health status in Bulgaria is smoking. In 2006, the prevalence of

smoking among adults (aged 15 or over) was 49% for men and 38% for women. Tobacco use among adolescents aged 13–15 years in the period 2000–2009 was 26.4% for young males and 31.8% for young females. In 2008, the SDR attributed to smoking-related causes was 372.5, which was well above the EU12 (349.6) average and more than twice that of the EU15 (179.6) (WHO Regional Office for Europe, 2010).

Between 1990 and 2000 the DMFT-12 (decayed, missing or filled teeth at age 12) index has increased from 3.1 to 4.4, the latter number being well above the EU27 (1.9) and the EU15 (1.4) averages and 25% higher than the EU12 average of 3.6 (WHO Regional Office for Europe, 2010). Unfortunately, no newer data is available.

Infant mortality (Table 1.6) has been decreasing in the last 30 years. Between 2000 and 2009 the infant mortality rate decreased substantially from 13.3 to 8.6 per 1000 live births. Under-five mortality also decreased from 17.4 per 1000 live births in 2000 to 10.0 in 2009. Both indicators report a drop of 5–6% a year. Nevertheless, with this rate, Bulgaria is still behind the EU12 and EU27 averages. In 2008, the number of infant deaths per 1000 live births in Bulgaria was approximately twice the EU 27 average (4.4 per 1000) and the second highest rate in the EU after Romania (11.0 per 1000) (WHO Regional Office for Europe, 2010). There are substantial geographical differences in infant mortality rates, the lowest being registered in Blagoevgrad (4.8) and the capital, Sofia (5.7) and the highest in Sliven (21.6) and Dobrich (12.7). The infant mortality in rural areas has been 50% higher than in urban areas (National Centre of Health Informatics, 2010).

The neonatal mortality rate (from day 0 to day 28 per 1000 live births) roughly halved, from 10.4 in 1980 to 5.4 per 1000 live births in 2009, but is still above the EU12 average (4.2 in 2008) and twice the EU15 average (2.6 in 2008). The post neonatal mortality rate (from day 29 to day 365 per 1000 live births) demonstrates an even more impressive decline, from 15.0 per 1000 in 1980 to 3.6 per 1000 in 2009. However, this is still disproportionately high

compared to the EU27 average (1.5 in 2008), and even more so when compared to the EU15 average (1.2 in 2008) as well as to some other eastern European countries such as Hungary (1.8 in 2008) and Poland (1.7 in 2007). The data reveal slow progress in perinatal mortality rates (including the sum of stillbirths plus deaths before day 6). Although this rate decreased from 15.0 in 1980 to 10.5 in 2008, this is still almost twice the EU12 average (5.7 in 2008) and at least 50% higher than Romania's (8.0 in 2008). In general, positive changes in child mortality indicators in the last decade result from the stabilization of the political and economic situation in the country and the improving welfare of most families. However, insufficient progress in some of the sub-categories of child mortality may point to areas to be addressed in the health care system. In 2008, the SDR Health systems in transition Bulgaria 15 per 100 000 from acute respiratory infections, pneumonia and influenza in children under 5 years was particularly high and stood at 30.7 compared to 1.5 in Hungary, 3.7 in Poland, 5.2 in the EU27 and 1.3 in the EU15 (WHO Regional Office for Europe, 2010).

Maternal mortality (Table 1.6) shows a steady downward trend and has fallen to slightly above the EU27 average. In 2008, the maternal death rate was 6.4, while the EU27 average was 6.1 (WHO Regional Office for Europe, 2010). Vaccination coverage in Bulgaria has traditionally been very high. It has remained above 95% in the 2000s for the prevailing part of vaccine-preventable diseases: tuberculosis, diphtheria, tetanus, measles, poliomyelitis and pertussis. In 2008, coverage against measles was 95.9%, which is higher than the EU15 (91.2) and the EU27 averages (92.6) but a little lower than the EU12 average (97.6).

Table 1.6

Maternal, child and adolescent health indicators, selected years

Indicator	1980	1990	1995	2000	2005	2009
Fertility rate (per 1 000 women 15–19 years)	80.3	68.3	53.5	45.5	38.5	48.9
Termination of pregnancy (abortion) rate (per 1 000 women 15–49 years)	72.9	67.2	47.2	30.6	22.3	18.7
Infant mortality rate (0–1 per 1 000 live births)*	20.2	14.8	14.8	13.3	10.4	8.6*
Under 5 mortality rate (per 1 000)**	24.1	18.3	19.3	17.4	13.3	10.0
Neonatal mortality rate (per 1 000 live births)	10.4	7.7	7.8	7.5	6.2	5.4
Postneonatal mortality rate (per 1 000 live births)	10.0	7.1	7.1	5.9	4.2	3.6
Perinatal infant mortality rate (per 1 000 births)	15.0	11.1	11.8	12.2	12.0	11.3
Maternal death rate (per 100 000 live births)*	21.1	20.9	13.9	17.6	11.3	6.4 a
Syphilis incidence rate (per 100 000)*	n/a	4.2	20.1	19.8	7.7	n/a
Gonococcal infection incidence (per 100 000)*	n/a	61.2	23.3	6.7	n/a	n/a

Sources: National Centre of Health Informatics, 2010; *WHO Regional Office for Europe, 2010; **World Bank, 2010.
Note: *2008.



**WE DIDN'T
JUST MAKE HISTORY.
WE ALSO GUARANTEED
A HEALTHIER FUTURE.**

Proud of 25 years of revolutionizing the healthcare industry.