HEALTH STATUS OVERVIEW FOR COUNTRIES OF CENTRAL AND EASTERN EUROPE THAT ARE CANDIDATES FOR ACCESSION TO THE EUROPEAN UNION
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OVERVIEW

Health status in the candidate countries improved generally until the early 1970s, then stagnated. Death rates overall, and those due to the major causes, began to fall in the 1990s, and life expectancy increased.

Dramatic economic and social changes throughout the 1990s were associated with low birth rates, net emigration and falling populations, particularly those of working age. Demographic change has increased the proportion of elderly people, though not yet as dramatically as in the European Union (EU).

Many common, western diseases remain more prevalent than in the EU – cardiovascular diseases, cancer in general, and lung cancer in particular. Relatively high rates of smoking, alcohol consumption, and high blood pressure, lack of exercise and a diet high in animal fats and low on fresh fruit and vegetables are direct contributory factors, though the social insecurity of the last decade has been an underlying factor.

Tuberculosis is common, and HIV/AIDS, rare until recently in all but Romania, may now be growing in other candidate countries too. On the other hand, some causes of mortality are currently less common in this group of countries than in the EU, particularly respiratory and many infectious diseases.

Men’s health is particularly poor compared both with the EU and with women in the candidate countries. Exceptions are where women are increasingly adopting harmful behaviour, such as smoking, where they are victims of violence, or where they are only now gaining full access to modern family planning services.

Routine measures of maternal and child health are now generally good, with dramatic reductions in maternal and child mortality, and high immunization coverage rates. Adolescent health is difficult to measure and requires better data collection. Known threats are high teenage pregnancy rates and increasing smoking, alcohol consumption and substance abuse.
This report provides an overview of the health of the ten central and eastern European countries that are candidates for accession to the EU (Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia). Comparisons with the EU average are used as one means of assessing the countries’ comparative strengths and weaknesses, what has been achieved so far and what could be improved in the future. For each disease, the trend is presented for a selected group of the candidate countries. The country groups used for comparison are chosen for their similar historical pattern for the particular disease.

To make comparisons between countries as valid as possible, data for each indicator have been taken from one common international source (such as WHO, EUROSTAT, the Organisation for Economic Co-operation and Development or the International Labour Office) whenever possible. This is done to ensure that they have been harmonized in a reasonably consistent way. Nevertheless, other factors such as recording and classification practices and cultural differences can influence the comparability of the data. Unless otherwise mentioned, the source of all data is the health for all statistical database of the WHO Regional Office for Europe (WHO Regional Office for Europe, 2002b). Information on national policies has been obtained from health for all evaluation reports from national authorities and by personal communication with them, and from Health in Europe 1997 (WHO Regional Office for Europe, 1998). The overview is based largely on the country-specific Highlights on health for the candidate countries (WHO Regional Office for Europe, 1999/2000/2001).

Line charts (usually to show time trends from 1970 onwards) have been used mostly. They present the trends for selected candidate countries, for the EU, and for selected EU countries, as appropriate. All are identified in the legends. This enables the group’s trends to be followed in relation to those of similar candidate countries, and their performance in relation to observable clusters and/or the main trend or average to be recognized more easily. Premature mortality refers to mortality for those aged 0–64 years.
INTRODUCTION

Population
The total population for the candidate countries was nearly 105 million people in 2000 – about 28% of the current population of the EU. It has fallen by 1.9 million since 1990, with only the populations of Slovakia and Poland increasing over this decade, though in Slovenia the decline ceased in the late 1990s.

The average birth rate has consistently been below the death rate, leading to a natural decline in total population. Fertility has been below replacement level for a number of years. Net emigration has also been a feature of these countries, particularly from Bulgaria, Estonia and Latvia, where it has resulted in falls in population of over 5%. These factors have caused a reduction in the overall population of this group of countries, compared with a small increase in the EU.

All the countries have also gone through a demographic transition, with an increase in the proportion of older people in the population, though they are at different stages.

Economic development
The economic development trends vary greatly across the candidate countries. Economic development and health show important interactions: health sector expenditure is an important driver of economic development, which in turn influences social circumstances, lifestyle and health (WHO, 2001).

In Estonia, Latvia and Lithuania, gross domestic product adjusted by purchasing power parity halved in the mid-1990s, then rose in the late 1990s back above the level of the early 1990s (US $ 5700–7700). Unemployment levels increased during the 1990s to between 8% and 14% in 2000.

In Bulgaria, gross domestic product fell in the 1990s and, though it has increased since, it remains below that in Estonia, Latvia and Lithuania. Unemployment is high and increasing in Bulgaria and Romania (18% and 10%).

In the other candidate countries, gross domestic product increased in the 1990s to between US $ 8000 and US $ 14 000, and the candidate countries with the highest gross domestic product are approaching the EU minimum. Unemployment decreased in the early 1990s, but the positive trend stopped in the mid-1990s, with rates increasing recently. The unemployment rates vary greatly, however, from 7% to 19% in 2000. Actual unemployment may be even higher than the official figures.

Each country has internal regions with significantly higher levels of unemployment and social deprivation, with predictable consequences for health status.

Health services and reforms
These countries have all undertaken health care reforms, with an emphasis on decentralization, reform of health insurance schemes, and a more efficient use of health resources. Health insurance schemes do not cover the entire population in all countries.

The many changes in the health care systems are reflected in health care resource statistics, with the number of hospital beds declining in all countries, bringing all these countries within the same range as the EU countries for hospital beds and physician numbers.

Total health care expenditure as a percentage of gross domestic product is the lowest in Romania, Latvia and Bulgaria, while Estonia, Poland, Lithuania, Hungary, Slovenia, Slovakia and the Czech Republic report levels equal to the EU minimum, though below the EU average.
HEALTH STATUS SUMMARY

The populations of all the candidate countries are falling, owing to a combination of emigration and of deaths exceeding births (negative natural growth). This particularly affects Bulgaria, Estonia and Latvia. Populations in the EU, in contrast, are generally rising slowly.

Although the countries considered show some similarities, the patterns of health status vary considerably between them. Even where a group of countries shows some similarities, other important differences remain, leaving each with its own unique profile. For each country, the most recent Highlights on health gives a more detailed description.

Life expectancy at birth shows a variety of patterns, but stagnated generally for many years before rising in all countries in the late 1990s. Life expectancy at older ages (45 and 65) is also below EU levels. Only Slovenia and the Czech Republic are approaching the life expectancy of some EU countries. Estonia, Latvia and Lithuania experienced particular mortality problems during the social transition of the late 1980s and early 1990s, and now have the lowest life expectancies in the group, followed by Romania, Hungary and Bulgaria. The gender difference in life expectancy is larger in this group of countries than in the EU but, in both, the gaps have narrowed in recent years.

Bulgaria, Romania, Latvia, Estonia and Hungary have high cardiovascular mortality. Cerebrovascular mortality is disproportionately higher than levels in the EU, with even the best candidate countries (Slovakia and Slovenia) having rates higher than any EU country except Greece.

Lung cancer is an important public health problem, with high premature mortality among men (though this has been falling generally throughout the 1990s). Mortality for women, though much lower, is still rising. Of the group, Hungary has particularly high cancer mortality, mainly due to lung cancer. The dominant cause is clearly the consumption of cigarettes.

Cervical cancer mortality is higher than in the EU and not yet falling. Romania had the highest mortality in the European Region and Lithuania the second highest at the end of the 1990s. The highest mortality from breast cancer (in Hungary, Estonia and Slovenia) is above the EU average, though well below that in Denmark (the EU country with the highest mortality).

Deaths due to external causes are particularly common in Estonia, Latvia and Lithuania, with high levels of road traffic deaths, homicides and suicides. Mortality from suicide is relatively high in Latvia, Hungary and Slovenia.

Respiratory mortality is generally lower than EU levels and falling.

Diseases of the digestive system show particularly diverse patterns across the candidate countries. Hungary, Romania and Slovenia have high mortality, among the highest in the European Region, caused partly by their high mortality from chronic liver disease and cirrhosis.

Romania, Latvia, Lithuania and Estonia’s mortality from infectious diseases is much higher than in the EU, while the other candidate countries are comparable to many EU countries. HIV/AIDS is only common in Romania, as yet, but Latvia and Estonia show signs of increases.

Infant mortality, though falling, is about double that in the EU, and maternal mortality is even higher in relation to EU levels. Low birth weight is a particular problem in Bulgaria (where it is probably related to the very high rates of teenage pregnancy), Romania and Hungary. Maternal mortality fell sharply in Romania in 1990, when termination of pregnancy was legalized. The consequences of recent changes in the abortion laws in Poland remain to be seen.
HEALTH STATUS

Life Expectancy
For all the candidate countries, life expectancy at birth stagnated in the 1970s and early 1980s. The trends within the group then diverged.

In Bulgaria, Hungary and Romania, life expectancy for men fell in the early 1990s, and female life expectancy stagnated. Both rose later in the decade, so that male life expectancy returned to the levels of the early 1970s, with female life expectancy some 2–4 years higher. Now the levels in these countries are below the average for the accession group as a whole.

Portugal, Ireland and Denmark had the lowest life expectancy in the EU during the mid- to late 1990s. Sweden had the highest life expectancy for men and France for women during this period (Fig. 1, 2).
In the Czech Republic, Slovakia and Slovenia, life expectancy has improved since the mid-1980s for both men and women. For Poland, this improvement began in the early 1990s. Life expectancy in Slovenia (the highest among the candidate countries) is now similar to the lowest EU countries (Fig. 3, 4).
In Estonia, Latvia and Lithuania, life expectancy improved significantly when strict anti-alcohol restrictions were introduced in 1985. For seven years from 1987, when restrictions were lifted, life expectancy deteriorated, with increased mortality from cardiovascular diseases and external causes. Life expectancy is now similar to the mid-1980s, and the divergence from the EU average has increased to 8–10 years for men and to 4–6 years for women (Fig. 5, 6).
The gender difference for life expectancy has increased since 1970 for all the countries except the Czech Republic, and is wider than the narrowing EU average in all countries.

Estonia, Latvia and Lithuania have the largest gender differences in life expectancy in the European Region (Fig. 7).

A comparison of the most common causes of death in the candidate countries and the EU indicates considerable similarity (Table 1). Differences exist for middle-aged women (with ischaemic heart diseases being more common in candidate countries), and for those aged 35–44 years (with diseases of the digestive system being more common in candidate countries). Where there are differences, the most common EU cause is almost always the second most frequent in the candidate countries.

### Table 1. Most common causes of death by sex and age group, in candidate countries, 1999

<table>
<thead>
<tr>
<th>Age in years</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>5–9</td>
<td>Transport accidents</td>
<td></td>
</tr>
<tr>
<td>10–14</td>
<td>Transport accidents</td>
<td></td>
</tr>
<tr>
<td>15–19</td>
<td>Transport accidents</td>
<td></td>
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<tr>
<td>20–24</td>
<td>Transport accidents</td>
<td></td>
</tr>
<tr>
<td>25–29</td>
<td>Transport accidents</td>
<td></td>
</tr>
<tr>
<td>30–34</td>
<td>Transport accidents</td>
<td>Transport accidents</td>
</tr>
<tr>
<td></td>
<td>(Suicide)</td>
<td>(Breast cancer)</td>
</tr>
<tr>
<td>35–39</td>
<td>Suicide</td>
<td>Diseases of the digestive system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Breast cancer)</td>
</tr>
<tr>
<td>40–44</td>
<td>Diseases of the digestive system</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Ischaemic heart diseases)</td>
<td>Diseases of the digestive system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Breast cancer)</td>
</tr>
<tr>
<td>45–49</td>
<td>Ischaemic heart diseases</td>
<td>Ischaemic heart diseases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Breast cancer)</td>
</tr>
<tr>
<td>50–54</td>
<td>Ischaemic heart diseases</td>
<td>Ischaemic heart diseases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Breast cancer)</td>
</tr>
<tr>
<td>55–59</td>
<td>Ischaemic heart diseases</td>
<td>Ischaemic heart diseases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Breast cancer)</td>
</tr>
<tr>
<td>60–64</td>
<td>Ischaemic heart diseases</td>
<td>Ischaemic heart diseases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Breast cancer)</td>
</tr>
<tr>
<td>65–69</td>
<td>Ischaemic heart diseases</td>
<td></td>
</tr>
<tr>
<td>70–74</td>
<td>Ischaemic heart diseases</td>
<td></td>
</tr>
</tbody>
</table>

Note: Causes where the equivalent EU figure differs from the candidate countries are in bold, with the comparable EU cause in italics.
Cardiovascular diseases
Cardiovascular diseases are important causes of premature mortality in all candidate countries, but are now declining in all. Bulgaria has the highest premature mortality, followed by Latvia, Estonia, Romania and Hungary. Ireland, Finland and Greece have the highest premature mortality in the EU, and France has the lowest (Fig. 8).

Fig. 8. Trends in mortality from cardiovascular diseases in Bulgaria, Estonia, Hungary, Latvia, Lithuania and Romania compared with the EU, age 0–64
Cardiovascular mortality in Slovakia, Poland and the Czech Republic is still significantly higher than in any EU country. Slovenia, with the lowest cardiovascular mortality in the group, is comparable to Ireland, Finland and the United Kingdom; female mortality being below an even wider range of EU countries (Fig. 9, 10).
Ischaemic heart diseases
The high cardiovascular mortality in Estonia, Latvia and Lithuania is determined by ischaemic heart disease mortality. Bulgaria and Romania’s ischaemic heart disease mortality is comparable with a broader group of candidate countries, such as Hungary, Slovakia, Poland and the Czech Republic. Finland has the highest and France the lowest premature mortality from ischaemic heart diseases in the EU, demonstrating the potential for improvement (Fig. 11).

Cerebrovascular diseases
Premature mortality from cerebrovascular diseases is generally similar to the pattern for other cardiovascular diseases. For all ages, these diseases are particular problems in Romania, Latvia and Bulgaria. In contrast, mortality in Slovenia and Slovakia is significantly lower than in Portugal, the highest EU country, and similar to Greece (Fig. 12).
Cancer

Premature mortality from cancers rose in all the candidate countries until the early 1990s. Since then, mortality in Hungary has continued to increase, showing signs of reduction only very recently. Hungary is the only country in the entire Region experiencing such high cancer mortality (Fig. 13). Poland, Estonia, Latvia, Lithuania, the Czech Republic and Slovakia retain comparatively high cancer mortality, though rates are falling in all of them.

Bulgaria has comparatively low rates, similar to those in Denmark (the EU country with the highest cancer mortality in the mid-1990s). Rates in Romania are a little higher, and followed a similar, rising trend to those in Bulgaria until the mid-1990s, when the rates in Bulgaria started to decline (Fig. 14).
**Lung cancer and smoking**

Cancer of the trachea, bronchus and lung is a major component of cancer mortality. Premature mortality, though higher than the EU average in all candidate countries, fell during the 1990s. Hungary is a key exception, where the first signs of a decline have only recently been seen (Fig.15).

Mortality for all ages is much more similar to the EU: three EU countries (Belgium, Denmark and the Netherlands) have rates within the higher range of the candidate countries. Hungary has by far the highest mortality in the European Region.

The trends for lung cancer mortality reflect past smoking patterns. The latest data on the prevalence of regular daily smokers in these countries indicates slightly higher overall rates than in the EU (averages 32% vs 29%), especially among men (45% vs 34%), while women smoke equally often (22%). Half of the men are regular smokers in Bulgaria, Hungary, Latvia, Lithuania and Poland. Among women, the highest prevalences of around 30% have been reported for Hungary and Poland. Smoking has become more frequent in Lithuania (both sexes), as well as among Latvian and Slovak men and Bulgarian women. Smoking has declined in the Czech Republic and Slovenia (both sexes), as well as among Romanian men and Estonian women.

![Fig. 15. Trends in mortality from trachea, bronchus and lung cancer, age 0–64](chart.png)
Breast cancer in females

Though breast cancer mortality rose during the 1980s and was static in the 1990s, for most candidate countries it remains below the EU average. Hungary, Estonia and Slovenia, however, have rates around the EU average, though well below the highest rates in the EU (in Denmark and the Netherlands) (Fig. 16). Of those countries with the lowest mortality (Bulgaria, Poland and Romania) only Romania has rising rates.

Cervical cancer

Cervical cancer mortality is generally above the EU average and shows little sign of improvement. Mortality is particularly high in Romania, where premature mortality is the highest in the European Region. Lithuania and Poland also have high rates, while the Czech Republic and Slovenia have the lowest rates among the candidate countries (Fig. 17).
External causes of mortality
All the candidate countries have high rates of accidental and violent deaths. Estonia, Latvia and Lithuania have the highest rates, with trends that mirror overall and cardiovascular mortality (Fig. 18). This particular pattern of mortality seems to be associated with high alcohol consumption in these countries.

Road traffic deaths in Estonia, Latvia and Lithuania are among the highest in the entire Region. Trends in these countries are associated with alcohol consumption. In contrast, rates in Bulgaria are lower than in many countries in the EU.

Homicide rates are generally higher than in the EU, particularly for women. Homicides are particularly common in Estonia, Latvia and Lithuania. Several other candidate countries (Slovenia, the Czech Republic, Poland, Slovakia and Hungary) have homicide rates lower than those in Finland (the highest EU country).

Suicide rates are high in Estonia, Hungary, Latvia, Lithuania, Hungary and Slovenia, while they are similar to the EU average in the other candidate countries (Fig. 19).
Suicide rates for men are consistently higher than the EU average, with a much less uniform pattern for women. In Estonia, Latvia and Lithuania, the trend for male suicide followed the trend in overall mortality, and in mortality from cardiovascular diseases and external causes, in the 1980s and early 1990s, reflecting the social disruption and the trends in other alcohol-related deaths. Though this trend was not seen among women, it dominated the overall trend, as male suicide rates are significantly higher than female. Romanian, Polish and Slovak women have relatively low suicide rates, below several EU countries.

Respiratory diseases
Mortality from respiratory diseases is generally declining across the group, and compares relatively well with the EU. Overall respiratory mortality in all the candidate countries is below the very high rates in Ireland and the United Kingdom. The relative position of Slovenia appears to have deteriorated in the late 1990s, with rising mortality, in 1999 exceeding all but Romania among the candidate countries (Fig. 20).

Fig. 20. Trends in mortality from diseases of the respiratory system, all ages

Fig. 21. Trends in mortality from diseases of the digestive system, all ages
Diseases of the digestive system
On average, digestive system mortality has been relatively static over the last two decades in the candidate countries, but this masks differences in levels and trends across the group. At the end of the 1990s, Hungary, Romania and Slovenia had the highest mortality from diseases of the digestive system, among the highest in the European Region. In Hungary and Romania, mortality had been rising for two decades, but may have begun to fall recently (Fig. 21).

Though rising, mortality in Estonia, Latvia and Lithuania is among the lowest, with rates comparable with several EU countries.

Chronic liver disease and cirrhosis
For the candidate countries, chronic liver disease and cirrhosis cause more than half of all mortality from diseases of the digestive system. This hides wide variations among countries, however, and a steadily falling average mortality. Male mortality is typically much higher than female.

For example, the Hungarian rate in 2000 among men, of 102 per 100 000 population, is three times the corresponding female rate of 31.

At the end of the 1990s, Hungary, Romania, Slovenia and Slovakia had the highest mortality among the candidate countries, all significantly higher than the EU average and the highest EU rate (in Austria) (Fig. 22). Rates in Estonia, Latvia and Lithuania are rising, although, with Poland, they still have the lowest mortality in the group, similar to the EU average.

Mortality from chronic liver disease and cirrhosis is strongly associated with alcohol use. Registered alcohol consumption in 1999, based on sales data and expressed in litres of pure alcohol, was lower in the candidate countries compared to the EU (7.9 litres per head vs 11.7 litres per head); this is also true for the consumption of beer (2.9 litres vs 3.4 litres) and wine (2.2 litres vs 5.8 litres), but not for the consumption of spirits (2.8 litres vs 2.3 litres) (WHO Regional Office for Europe, 2002a). Local studies suggest, however, that unregistered alcohol consumption may be higher in the candidate countries than in the EU. Hungary, Romania, Slovakia and Slovenia share high consumption and mortality with Austria, France, Portugal and Finland.

![Fig. 22. Trends in mortality from chronic liver disease and cirrhosis, all ages](image-url)
Infectious and parasitic diseases

Overall, premature mortality from infectious and parasitic diseases is high in Estonia, Latvia, Lithuania and Romania, while the other candidate countries all have rates that are comparable with several EU countries (Fig. 23).

Mortality from tuberculosis was high in Estonia, Latvia, Lithuania and Romania during the 1990s. The incidence of tuberculosis increased in those countries, as well as in Hungary and Bulgaria, although it levelled off or began to decrease by the end of the 1990s, except in Romania. The incidence fell in the Czech Republic, Slovakia, Poland and Slovenia.

Vaccination programmes deteriorated or were disrupted during the period of social transition (for example, in Latvia in 1996–1998, with epidemics of diphtheria in the mid-1990s and 2000), but the latest statistics show that most countries have good vaccination coverage for tuberculosis, diphtheria, tetanus and pertussis (for infants) and for measles, poliomyelitis, hepatitis B, mumps and rubella (for children). Lithuania and Slovenia have somewhat lower coverage rates, but even they have vaccinated more than 90% of their infants/children.

The incidence of AIDS is low, but increasing. Romania is an exception with a much higher incidence than in other candidate countries (between 2 and 3 per 100 000 inhabitants during 1991–2000), close to the EU average at the end of the 1990s, and with the highest proportion of children (83% of all cases). In 2001, the highest incidence was in Latvia, higher even than in Romania (1.7 vs 0.9 per 100 000). Excluding Romania, the largest transmission groups are homo/bisexual contacts (44%), injected drugs (28%), heterosexual contacts (18%), and blood products (3%). Exceptions are Bulgaria, where the largest transmission group is heterosexual contact (75%), and Poland, where the largest group is those injecting drugs (50%).

The relatively low levels of HIV infection show worrying signs of change, with reported infections increasing dramatically in some candidate countries. Latvia reported the third highest rate of new HIV infections in the European Region in 1999, and Estonia showed a rise from 9 new cases in 1999 to 1474 in 2001. Rates of other sexually transmitted diseases rose in Estonia, Latvia, Lithuania, Bulgaria and Romania over the same period, but declined in the Czech Republic, Slovakia, Poland and Slovenia (European Centre for the Epidemiological Monitoring of AIDS, 2002).
Infant and maternal mortality

Though infant and maternal mortality are decreasing in all candidate countries (except for maternal mortality in Latvia), infant mortality is still double the EU on average (10.7 vs 4.9 per 1000 live births), with rates in Romania and Bulgaria being particularly high. Rates in Slovenia, on the other hand, are lower than in several EU countries (Fig. 24). The difference in maternal mortality is even greater (14.9 vs 5.1 per 100 000 live births). Nevertheless, those countries with the lowest mortality have already reached EU levels.

Bulgaria, Romania and Hungary have particularly high levels of low-birth-weight neonates, among the highest in the European Region (Fig. 25).

In Romania, maternal mortality fell sharply after induced abortions were legalized in 1990.

The number of induced abortions is traditionally high, but has been decreasing rapidly. It is still three times the EU average, with particularly high rates in Estonia and Latvia, as well as in Romania and Bulgaria. An exception to the general pattern is Poland, where
the law allows abortion only in cases of severe risk to the mother’s health, of high risk of significant foetal abnormality, or where the pregnancy is the result of an illegal act.

All countries have tried to strengthen primary health care, though specific arrangements are very varied.

In the pharmaceutical sector, dispensing pharmacies are increasingly privatized. Drug costs are generally a high proportion of health expenditure, and are rising rapidly. Cost pressures, and the move to insurance-based systems, have led many countries to adopt lists of drugs and procedures approved for use under their respective systems.

Hospital bed numbers have declined from levels above the EU average, and some countries are now approaching and some (such as Slovenia) falling below those levels. Hospital admissions show considerable variation around the EU average rate. Lengths of hospital stay are more consistently above EU levels. Outpatient consultation rates vary more than threefold.

The level of resources available to the health services varies between the countries (Fig. 26). Although current expenditure is higher than in the late 1980s in all countries, increases have been greatest in the wealthiest countries (Slovenia, Hungary, the Czech Republic and Slovakia) and lowest in Romania. All are still spending less than the EU average. Staff numbers mirror this, with the numbers of physicians being generally lower than the EU average.

**Health services**

The candidate countries have undertaken dramatic health reforms throughout the 1990s. They have moved from a clearly monopolistic state system, based to varying degrees on the model of the former Soviet Union, towards a pluralistic system, with greater variety in the funding and provision of health care.

The organization and administration of health services have generally been devolved, and health care is increasingly financed via a social insurance system: with employee contributions, and state funding of health care for the young, the elderly and other vulnerable social groups. In many cases, a single agency provides either all or most of the funding, but in some instances private insurers either provide an alternative way of funding all the health care for their subscribers, or fund those drugs and treatments that are restricted in the social scheme.
REFERENCES


In addition to experts from Denmark, France, Germany, Ireland, the Netherlands, Portugal and the United Kingdom, the following institutes participated in the project on Highlights on health in the candidate countries for accession to the European Union:

National Centre of Health Informatics, and National Centre for Public Health, Bulgaria,
Institute of Health Information and Statistics of the Czech Republic,
Bureau of Medical Statistics, Estonia
National Centre for Epidemiology of the Chief Medical Office, Hungary
Agency of Health Statistics and Medical Technology, and the Ministry of Welfare, Latvia
Lithuanian Health Information Centre, and Kaunas University of Medicine, Lithuania
National Institute of Hygiene, Poland
National Centre for Health Statistics, Romania
Institute of Health Information and Statistics, Slovakia
Institute of Public Health of the Republic of Slovenia
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