

HIGHLIGHTS ON HEALTH IN ROMANIA



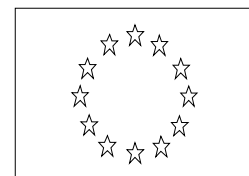
Country Highlights give an overview of the health and health-related situation in a given country and compare, where possible, its position in relation with other countries in the region. The Highlights have been developed in collaboration with Member States for operational purposes and do not constitute a formal statistical publication. They are based on information provided by Member States and other sources as listed.

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OVERVIEW

The crude birth rate per 1000 population has decreased in Romania, and the crude natural growth rate has been negative since 1992.

The life expectancy at birth for both sexes is the lowest in the European Region except for selected newly independent states: 66.3 years for men and 73.8 years for women in 1998. From 1970 to 1998, life expectancy at birth increased by 3.5 years for females, but the male life expectancy remained at the same level.

The SDR for cardiovascular diseases in the age group 0–64 years is the second highest among men and the highest among women in the reference countries.¹ Especially the SDR for ischaemic heart disease has increased significantly in Romania during the 1990s.

The SDR for cancer in the age group 0–64 years is below the SDR for the reference countries but increasing. The SDR for cancer of the cervix is the highest among the reference countries and still increasing, but the SDR for cancer of female breast is one of the lowest in the reference countries.

The SDR for suicide and self-inflicted injury is the lowest among the reference countries. The suicide rate among females has decreased, but the rate among males has increased during the 1990s. The SDR for homicide and purposeful injury has decreased slightly during the last decade, in contrast to an increase in most of the reference countries. However, the rate in Romania is still above that of the reference countries.

Romania still has the highest infant mortality rate among the reference countries, even though it has decreased by 24% since 1985.

Maternal mortality, especially caused by induced abortion, has decreased significantly since 1989, when legislation on induced abortion was changed to reduce the number of illegal and unsafe abortions. However, the maternal mortality rate still remains the highest among the reference countries.

Romania has the highest incidence rate of acquired immunodeficiency syndrome (AIDS) among the reference countries, and Romania is the only European country in which most people with AIDS are children. The incidence rates of tuberculosis, viral hepatitis and syphilis are also higher than the rates for the reference countries.

The proportion of regular daily smokers and the annual number of cigarettes consumed per person are high but among the lowest in the reference countries.

Since 1985 the total alcohol consumption per capita has increased by 21% to 9.2 litres because consumption of spirits has increased.

The progress in the health care reforms has been slow, and Romania was one of the last reference countries to introduce a health insurance based system in 1998.

The number of hospital beds per 100 000 population is only slightly smaller than the average of reference countries, but the number of physicians per 100 000 population is the smallest among the reference countries.

¹ The following ten candidate countries for the accession to the European Union were used as reference countries: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

TECHNICAL NOTES

Highlights on Health provide an overview of the health of a country's population and the main factors related to it. When possible, comparisons are made with other countries in the WHO European Region as one means of assessing the comparative strengths and weaknesses, what has been achieved so far and what could be improved in the future. The country groups used for comparison are called reference countries and are chosen based on:

- similar health and socioeconomic trends or development; and/or
- geopolitical groups such as the European Union (EU), the newly independent states, the central Asian republics or the candidate countries for EU accession.

For Romania, the reference countries are ten central and eastern European candidate countries for accession to the EU (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia).

To make comparisons between countries as valid as possible, data for each indicator have been taken from one common international source (such as WHO, the Organisation for Economic Co-operation and Development, the International Labour Office or EUROSTAT), whenever possible. 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. 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)*.

A special case of comparison is when each country is given a rank order. Although useful as a summary measure, ranking can be misleading and should be interpreted with caution, especially if used alone, as the rank is sensitive to small differences in the value of an indicator. Also, when used to assess trends (such as the table at the start of the section on health status), ranking can overshadow quite important absolute changes in the level of an individual country. Mostly bar charts (to indicate a country's position versus the reference countries according to the latest data) or line charts (usually to show time trends from 1970 onwards) have been used. Line charts present the trends for all the reference countries and for the EU or another geopolitical group, as appropriate. Only the country in focus and the appropriate group average are highlighted in bold and identified in the legend. This enables the country's trends to be followed in relation to those of all the reference countries, and performance in relation to observable clusters and/or the main trend or average can be recognized more easily. To smooth out fluctuations in annual rates caused by small numbers, 3-year averages have been used, as appropriate. For example, this is the case for maternal mortality for all reference countries.

Comparisons should preferably refer to the same point in time. However, the countries' latest available data are not all for the same year. This should be kept in mind, as the country's position may change when more recent data become available.

THE COUNTRY AND ITS PEOPLE²

According to the constitution, which was approved by a referendum in December 1991, Romania is a republic in which the rule of law prevails in a social and democratic state. The constitution also guarantees private property rights and a market economy.

The head of state is the President, who is elected by a direct vote for maximum of two 4-year terms. The president is empowered to veto legislation unless two thirds majorities in both houses of the National Assembly uphold it.

The National Assembly consists of a Chamber of Deputies with 343 members and a Senate with 143 members. Both are elected for 4-year terms from 41 constituencies (the counties) by a modified proportional representation system, and the number of seats won in each constitu-

ency are determined by the proportion of the total vote. There is a 3% threshold for admission to either house, but 15 seats in the Chamber of Deputies are reserved for ethnic minorities.

Romania is divided into 41 counties and 2686 communes. Councils are elected both at the county level (proportional representation system) and at the municipal level (the candidate with the most votes wins). Also mayors are elected.

Romania is a member of the United Nations, the Council of Europe and the NATO Partnership for Peace, an Associated Partner of the Western European Union and an Associate Member of the European Union (EU).

Romania and the reference countries (1998 or latest available)				
	Romania	Reference countries	Minimum	Maximum
Capital	Bucharest			
Population	22 573 000	104 929 000	1 442 000	38 636 000
• 0–14 years (%)	19.1	19.8	16.5	22.2
• 15–64 years (%)	68.1	67.5	66.4	69.8
• □65 years (%)	12.8	12.7	10.7	15.7
Area in km ²	238 000	1 078 000	20 000	313 000
Density per km ²	95	97	33	131
Urban population (%)	57	64	52	74
Births per 1000 population	10.5	9.8	7.6	10.7
Deaths per 1000 population	12.0	11.3	9.6	14.3
Natural growth rate per 1000 population	-1.5	1.4	-6.4	0.8
GDP per person in US \$ (PPP)	3 970	6 538	3 297	12 629
GDP: gross domestic product; PPP: purchasing power				

² These introductory paragraphs are based on material from the *Statesman's year-book 1998–99* (Turner 1998).

Demography

The European Region has reached the final stage of the demographic transition or post-transition stage, except for a few countries that still have relatively high fertility rates. The most important implication of this is the imperative of ensuring healthy aging and a useful role and decent standard of living for elderly people.

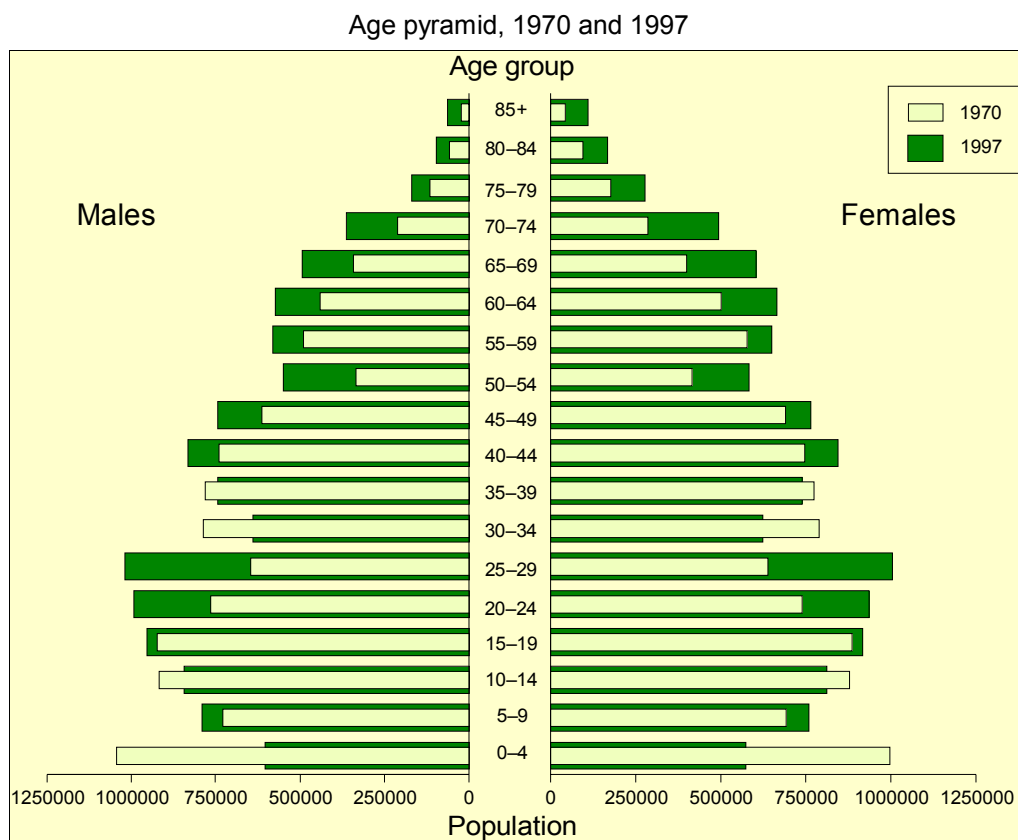
The shape of an age pyramid shows the current stage of the demographic transition. In the final stage, the younger age groups become considerably smaller than the older age groups. In addition, the historical changes in birth, death and migration rates influence the age pyramid. It also reflects the size and the general structure of the population, the size of different birth cohorts, the dependency ratio in the population and the gender balance of the population and indicates the future changes in the age distribution and dependency ratio. Features such as major changes in population structure – including those caused by changes in fertility or mortality – and their effects

can be more easily seen when comparing the age pyramids for two different years.

In 1997, the age cohorts of 0–4 years, 10–14 years and 30–45 years comprised a smaller proportion of the population in Romania than in the reference countries. In contrast, the age cohorts of 15–29 years and 55–74 years were larger than those in the reference countries.

The natural population growth rate for Romania was higher than the EU rate until the early 1990s. Since 1989, the crude live birth rate has decreased from 16 per 1000 to 10 per 1000, and the natural growth rate became negative in 1992. The natural growth rate for 1997 (–1.9 per 1000 population) was more negative than the rate for the reference countries (–1.4 per 1000) and substantially lower than the EU rate (+1.1 per 1000).

The fertility rate has fallen under the replacement level in Romania (1.3 in 1998), as in all the reference countries (average 1.4, variation from 1.1 to 1.6).



Migrant population and ethnic profile

Immigrants and ethnic minorities can have specific patterns of disease and health needs because of cultural, socioeconomic and behavioural factors and exposure to a different environment in their country of origin. Obtaining access to health care that can meet such specific needs and is culturally and linguistically acceptable can also be difficult. Moreover, many immigrants have a higher risk of living in relative poverty and being marginalized in their countries of residence, which can result in reduced health status compared with non-immigrants. Illegal immigrants, in particular, can find it difficult to obtain health care, and following up any care given can be problematic.

In 1996, 21 500 people emigrated from and 2100 immigrated to Romania, equivalent to net immigration of -0.9 per 1000 population. The main countries to which people emigrated were Germany, the United States and Canada (*Council of Europe, 1997*).

According to the 1992 census, the main ethnic minorities in Romania are Hungarians (7.2%), Gypsies (1.8%) and Germans (0.5%) (*Turner, 1998*). The proportion of Hungarians in Romania has declined because of emigration to Hungary (*Council of Europe, 1998a*). Most likely, the proportion of Gypsies is underestimated (*WHO Regional Office for Europe, 1993b*): their number was 410 000 in the census data, but a local survey estimated the number to be slightly over 1 million and the Gypsy organizations have even estimated between 2.0 and 2.5 million (*Council of Europe, 1998b*).

Social and economic conditions

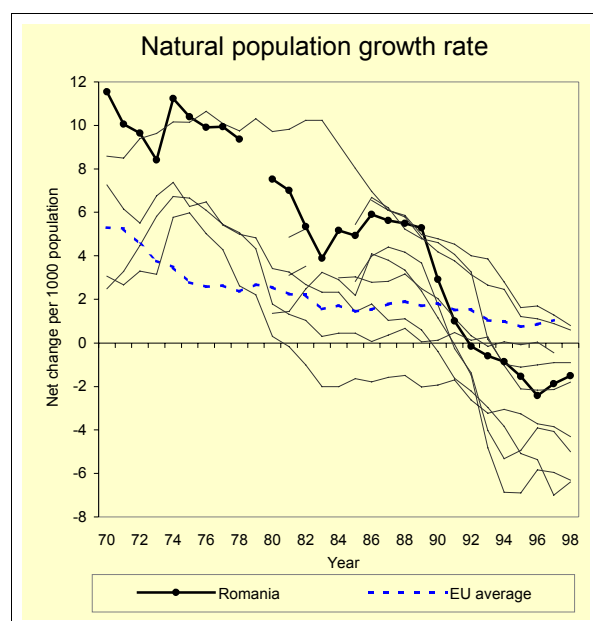
The relevance of educational attainment to health has been well documented. The literacy rate among the population aged 15 years or older has often been used as an indicator, but this is not very useful in Europe: for example, all ten reference countries report a literacy rate of 96% or more. In addition, all the reference countries have universal primary education with almost all children participating. Therefore, the enrolment ratio³ for primary education is also not a very sensitive indicator for detecting differences in educational levels.

There are, however, comparable data on the enrolment ratios in secondary education (such as middle school, high school and vocational and technical schools) and tertiary education (universities and other higher professional schools). In 1997, the gross enrolment ratio in Romania was 79% for secondary and 24% for tertiary education versus 92% and 27%, respectively for the reference countries (*UNESCO, 1999*).

The gross domestic product (GDP) in Romania adjusted for purchasing power parity (PPP) was US \$3000 in 1989. It reached US \$4431 in 1995 but declined to US \$3975 in 1997. This was one of the lowest levels among the reference countries and only 20% of the GDP for the EU.

Agriculture and industry are still the most important sectors in Romania's economy. In 1994, 37% of employed people were working in agriculture, 32% in industry and building and 31% in services. According to preliminary figures for 1997, 18% of the GDP came from agriculture, 41% from industry and 41% from services.

Real wages in Romania decreased by 20% between 1989 and 1996. Inequality in the distri-



³ The proportion of an age group participating in education at a certain level. National regulations are used to define the level of education (*UNESCO, 1999*).

bution of earnings increased remarkably during the same period: in 1989 Romania had the most equal income distribution among the reference countries, but the distribution was among the most unequal ones in 1996 (*United Nations Economic Commission for Europe, 1999*). In 1997 31% of the population had an income below subsistence level (less than US \$3 per day), and 18% lived in acute poverty because of minimal income (less than US \$1 per day). Even higher percentages are in poverty in rural areas (*United Nations Development Assistance Framework, 1998*).

The official unemployment rate in Romania increased from 3% in 1991 to almost 11% in 1994 but decreased to 6% in 1997. This is below the rate for the EU (10.9%) and one of the lowest rates in the reference countries. However, the actual unemployment in most of the countries of central and eastern Europe is probably higher because of hidden unemployment and underemployment.

Inflation has caused severe problems for some of the countries of central and eastern Europe. In Romania inflation peaked at 256% in 1992. In 1997, the inflation rate was 155%, the highest among the reference countries, but it decreased to 59% in 1998.

HEALTH STATUS

Major features

Romania had the lowest life expectancy among the reference countries in 1998. Since 1970, the female life expectancy at birth has increased by 3.5 years, but the male life expectancy has remained at the same level.

The SDR for cardiovascular diseases among men aged 0–64 years was the second lowest of the reference countries in 1970 but increased to the second highest among the reference countries in 1997. Among women in Romania, the SDR for cardiovascular diseases was the highest among the reference countries in 1970 and was still the highest in 1998. The SDR for cancer has been below the rate for the reference countries but has increased. The SDR for cancer of the cervix has been much higher than in the reference countries or in the EU.

The SDR for suicide and self-inflicted injury is the lowest among the reference countries.

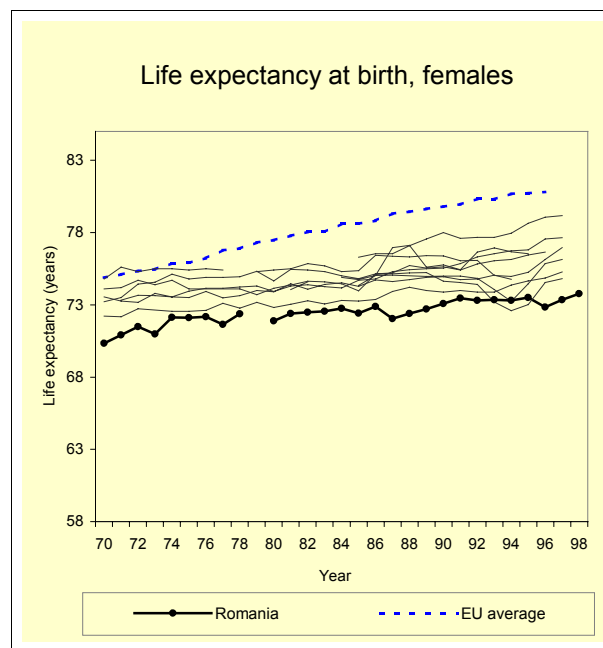
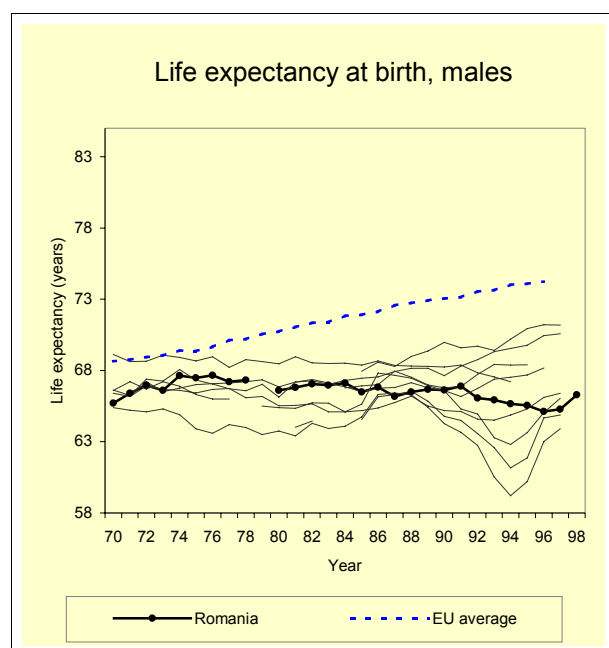
Even though the number of maternal deaths has decreased significantly since 1989 after the legislation on induced abortion was changed, Romania still has the highest maternal mortality rate among the reference countries.

Romania has the highest incidence rates of AIDS and tuberculosis among the reference countries.

Life expectancy

Life expectancy at birth in Romania was 65.3 years for men and 73.4 years for women in 1997, which were among the lowest in the reference countries. The following year, the life expectancy increased to 66.3 year for men and 73.8 for women, mostly due to decreased mortality from cardiovascular diseases.

From 1970 to 1998, life expectancy at birth among females increased by 3.5 years, whereas the increase was almost 6 years in the EU. During the same period, the life expectancy among males in Romania remained at the same level, whereas it increased by almost 5.5 years in the EU. Despite the recent improvement, this takes Romania back to the mid-1960s: a setback of more than three decades.



The gender difference in life expectancy has increased in almost all reference countries. Although Romania's gender difference was smaller than that for the reference countries in 1997 (7.5 years and 9.1 years, respectively), they were both larger than in the EU (6.7 years) because of deteriorating health among men.

In 1990–1992, the highest life expectancy was measured for the Bucharest area (71.3 years) and the lowest for the district of Tulcea in northeastern Romania (67.4 years) versus 69.8 years for the whole country (*Ministry of Health, 1997a*).

Romania relative to ten European countries in 1985 ● and latest available year (1994–1997) ☺

POSITION	WORST									
	1	2	3	4	5	6	7	8	9	10
Life expectancy at birth (years)										☺
Male versus female difference in life expectancy at birth (years)		●		☺						
Infant mortality rate per 1000 live births										☺
Maternal death from all causes per 100 000 live births ^c										☺
SDR ^d from cardiovascular diseases, age 0–64 years						●				☺
SDR from ischaemic heart disease, age 0–64 years		●					☺			
SDR from cerebrovascular disease, age 0–64 years						●				☺
SDR from cancer, age 0–64 years		●	☺							
SDR from trachea/bronchus/lung cancer, age 0–64 years		●			☺					
SDR from cancer of the cervix among females aged 0–64 years										☺
SDR from breast cancer among females aged 0–64 years	☺									
SDR from external causes of injury and poisoning		●			☺					
SDR from motor vehicle traffic accidents		●		☺						
SDR from suicide and self-inflicted injury	☺									

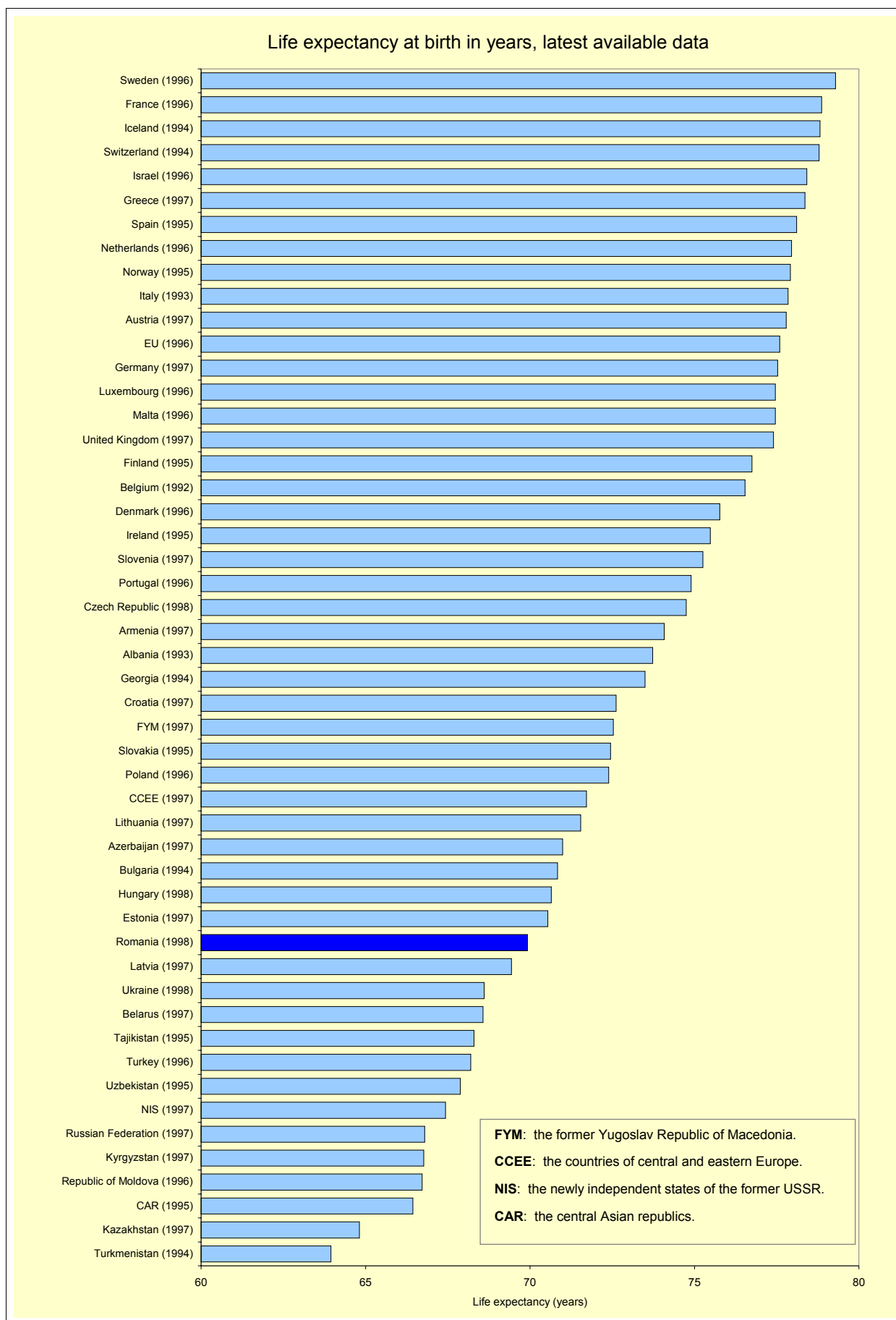
Romania	Reference country average	Minimum ^a	Maximum ^b
69.2	71.5	68.8	75.3
8.1	8.4	7.1	11.3
21.6	13.7	5.2	21.6
43.4	17.5	3.3	43.4
182.0	143.7	64.6	182.0
74.6	62.0	27.9	98.8
59.9	35.3	17.3	59.9
101.8	110.5	96.6	143.8
24.1	28.3	20.8	42.2
12.1	7.6	3.7	12.1
15.0	15.4	15.0	20.2
78.1	81.2	66.8	156.2
13.9	14.6	7.5	21.8
12.8	18.0	12.8	44.8

☺ Position improved 0 (indicators)

☺ Position unchanged 6 (indicators)

☺ Position deteriorated 8 (indicators)

^a Lowest value observed among ten European countries.^b Highest value observed among ten European countries.^c Three-year moving averages.^d SDR: standardized death rate.



Main causes of death

Comparing the death rates from main causes between countries can indicate how far the observed mortality might be reduced. As almost all the causes underlying the deaths attributed to cardiovascular diseases, cancer and accidents are influenced by collective and individual habits and behaviour, a wide variety of health promotion and prevention measures can bring about changes to reduce health risks and thus disease and premature deaths.

The main causes of death among the population 0–64 years old are cardiovascular diseases and cancer. In the EU, every fourth death is caused by cardiovascular diseases and every third death by cancer. In Romania, the proportion of cardiovascular diseases is much higher: 35%. The same is true for the diseases of the respiratory system and diseases of the digestive system. At the same time, only every fifth death is caused by cancer, which is one of the lowest percentages among the reference countries and lower than any EU country.

Among the population aged 65 years or older in the EU, cardiovascular diseases cause almost half of all deaths and cancer causes every fourth death. Cardiovascular diseases are also the most frequent cause of death in the reference countries, but they cause a higher proportion of deaths than in the EU. This is especially true for Romania: 77% of deaths in this age group are caused by cardiovascular diseases. As in the age group 0–64 years, the pro-

portion of deaths caused by cancer is lower in the reference countries in general than in the EU, and the lowest proportion is in Romania.

Large regional differences in total SDR have been reported for Romania: a 71% higher total mortality rate in the district with the highest mortality than the district with the lowest mortality (*Ministry of Health, 1997a*).

Cardiovascular diseases

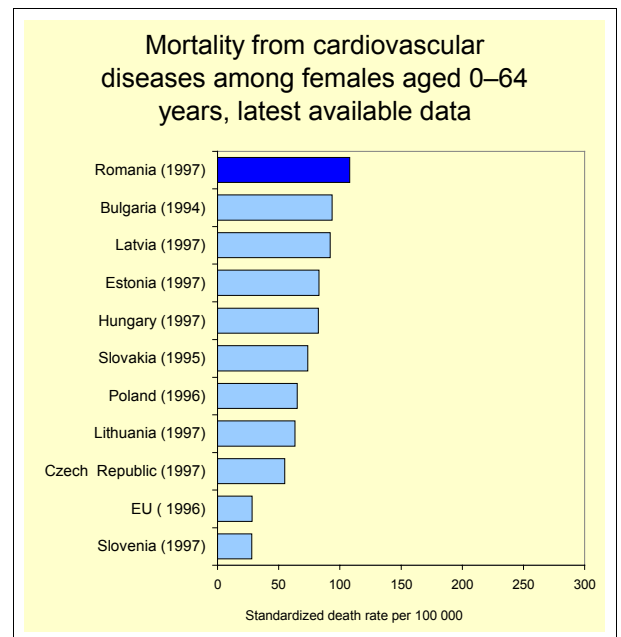
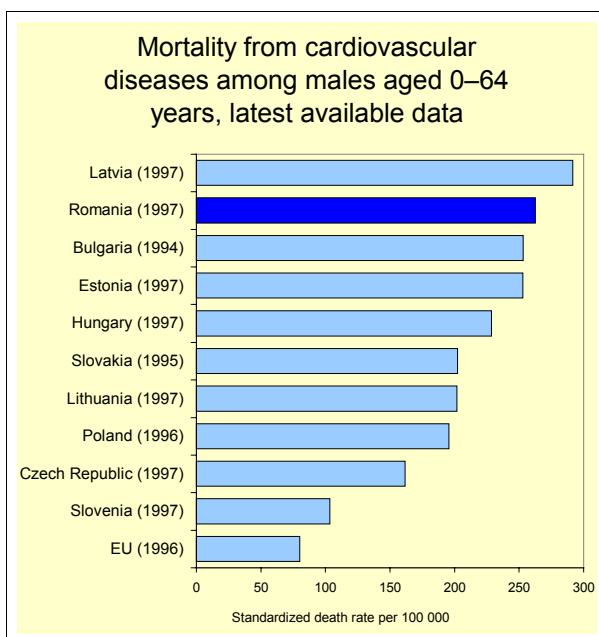
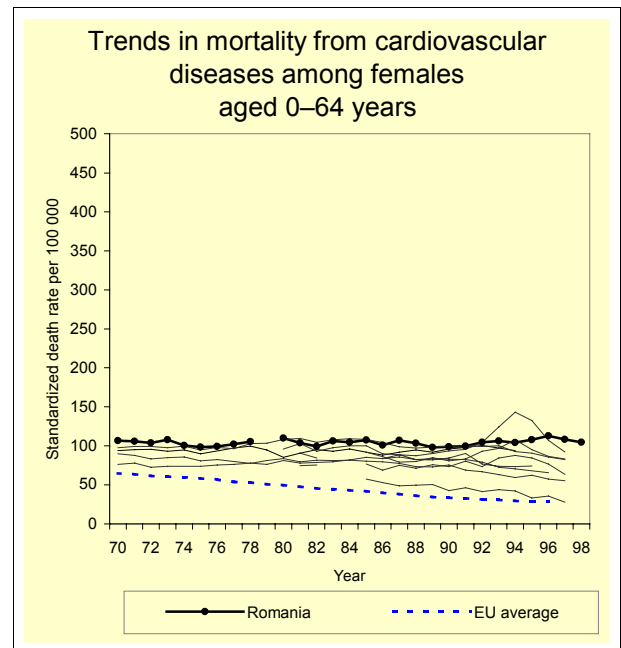
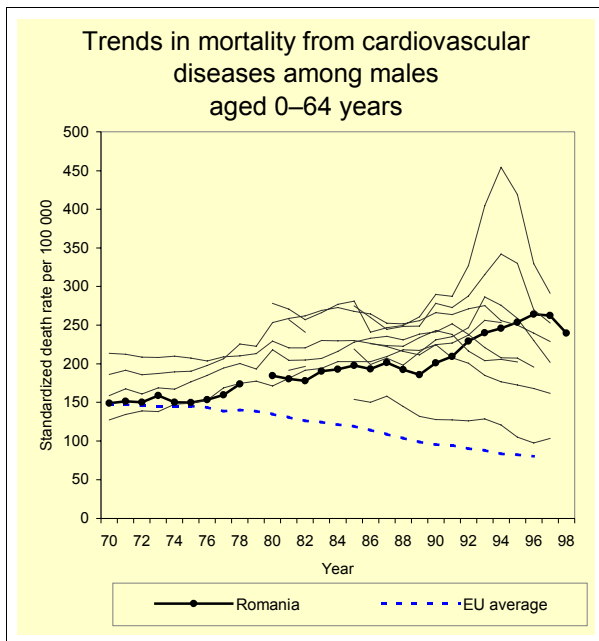
The SDR for cardiovascular diseases for males aged 0–64 years in the reference countries was the same as the EU rate in 1970. Since then, however, the SDR of most reference countries have increased, whereas the EU rate has declined. The SDR in Romania was among the lowest in the reference countries until the late 1980s but increased by more than 40% from 1989 to 1997. This was the largest increase among the reference countries, and Romania had the second highest rate in 1997.

The SDR for cardiovascular diseases among females aged 0–64 years was already higher in the reference countries than in the EU in 1970. Since then, the rate for Romania has remained constantly high, and it even started to increase in the 1990s, whereas the rates have declined in most reference countries. As a result, Romania had the highest SDR for cardiovascular diseases among females in the reference countries in 1997.

Structure of mortality (%) by main causes of death, 0–64 years and □65 years						
	0–64 years			□65 years		
	Romania	Reference countries	EU	Romania	Reference countries	EU
Cardiovascular diseases	35.0	32.9	22.9	77.2	66.3	47.0
Cancer	19.2	25.0	34.9	9.2	15.1	23.6
External causes, injury and poisoning	14.2	15.8	14.0	1.7	2.7	2.7
Diseases of the respiratory system	8.9	4.8	3.8	6.1	5.0	9.6
Diseases of the digestive system	9.9	7.2	6.3	3.1	2.8	4.0
Other diseases	12.7	14.3	18.1	2.6	8.1	13.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

The SDR for ischaemic heart disease among the EU population aged 0–64 years has been declining since the 1970s, but the decline started much later or the rate has even been increasing in the reference countries. Romania's SDR was below the rate for the reference countries in the 1980s, but the rate increased substantially in the 1990s, worsening Romania's relative position. Between 1989 and 1997, the SDR increased by 47% in Romania. This increase was much larger for men (53%) than for women (36%).

Romania's SDR for cerebrovascular diseases in the age group 0–64 years exceeded the rate for the reference countries in the 1970s. This difference has even increased in the 1990s, when Romania's SDR increased. However, the large jump in 1993 was caused by a change in coding practice, since the other cardiovascular diseases excluding ischaemic heart diseases and cerebrovascular diseases decreased similarly.



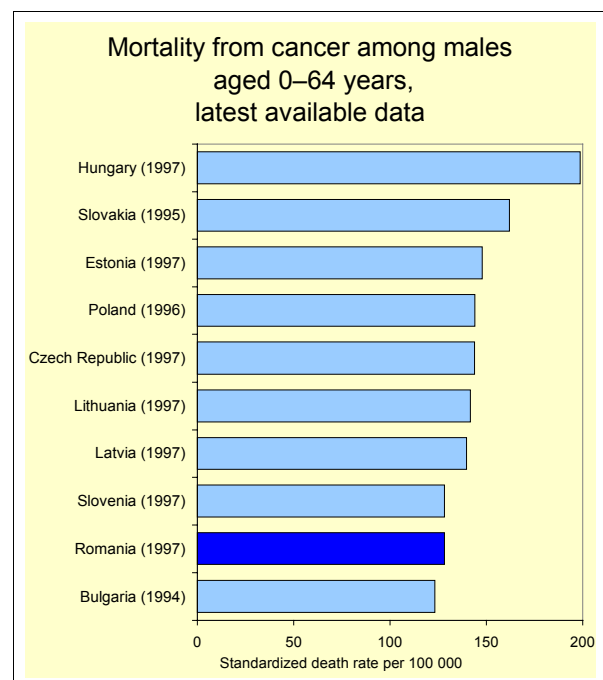
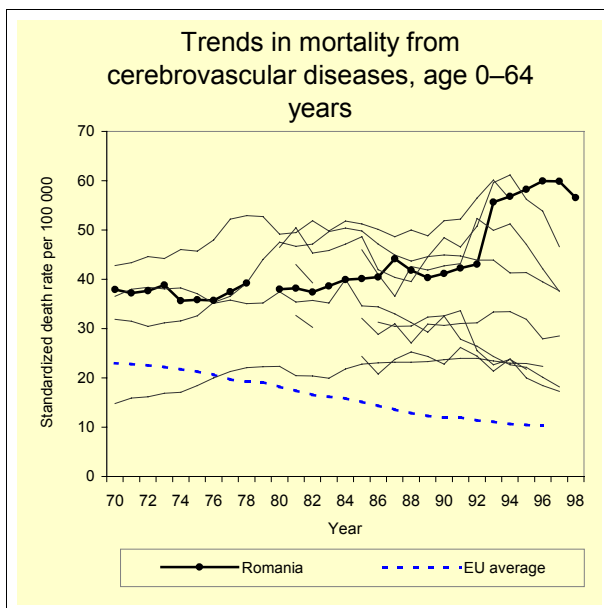
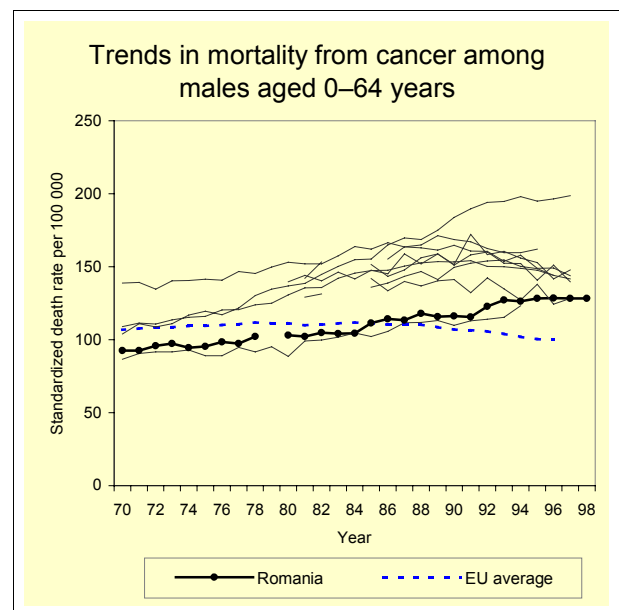
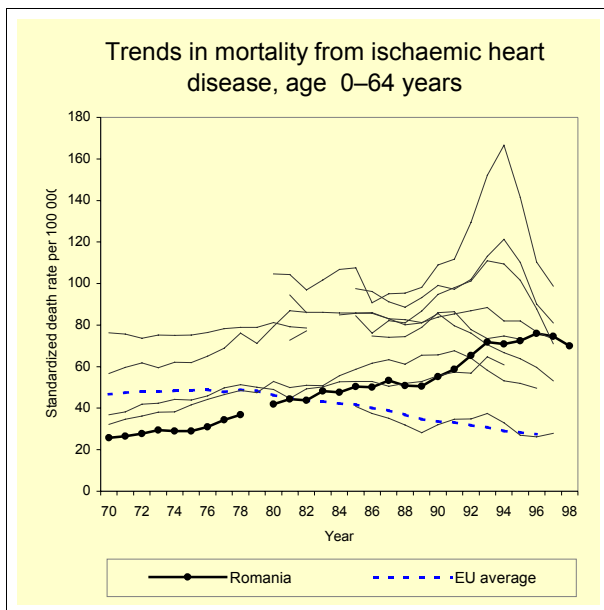
Cancer

This section provides comparative data on total cancer mortality. More detailed data on breast cancer and cervical cancer among women are presented in the section on women's health and data on cancer of the trachea or bronchus and lung cancer in the section on smoking.

The SDR for cancer among males aged 0–64 years was lower in Romania than in the reference countries until the 1990s, and it was even below the EU rate in the 1970s. Romania's

rate has, however, increased constantly, and it exceeded the EU rate in 1985. Between 1985 and 1997, the SDR for Romania increased by 15%, one of the highest increases among the reference countries. Despite this increase, the SDR in Romania was still one of the lowest among the reference countries but 27% higher than the EU rate.

For women in the same age group, the pattern was similar. The SDR in Romania for cancer remained less than the rate for the reference



countries but exceeded the EU rate in the 1980s. The increase in the SDR between 1985 and 1997 was the highest among the reference countries (9%), and the rate in Romania was 15% higher than the EU rate in 1997

The most common types of lethal cancer in Romania among men are lung, stomach and prostate cancer; among women, breast, cervical and stomach cancer. According to recent data, mortality from stomach cancer had declined for both sexes as well as cancer of cor-

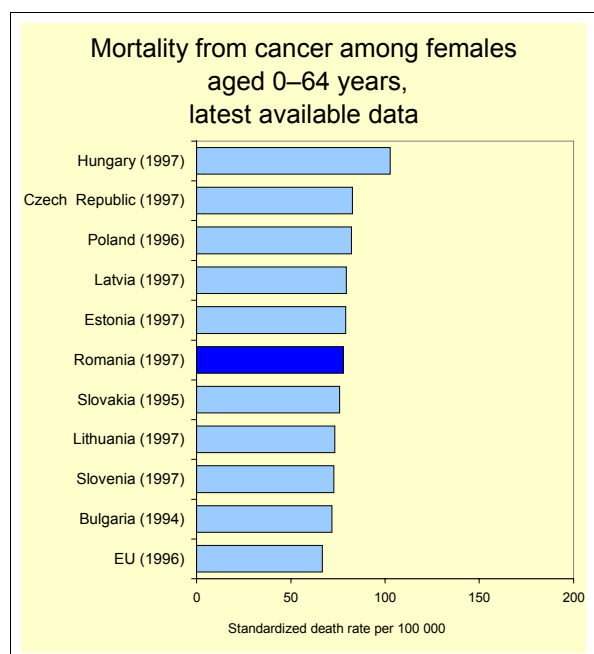
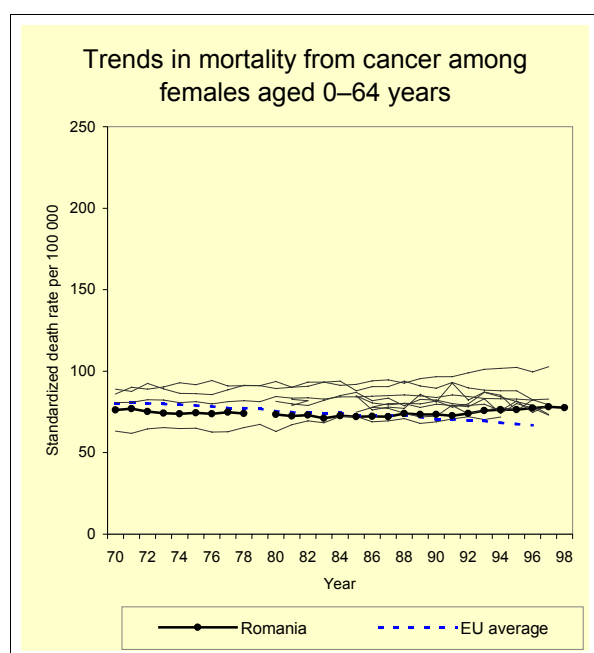
pus uteri, whereas increasing mortality rates have been reported for cancer of the oral cavity and pharynx (for males), lung, colon and rectum cancer (for both sexes) as well as for breast cancer among females (*Ministry of Health, 1997a*).

Other natural causes of death

The SDR for infectious and parasitic diseases declined very sharply both in the reference countries and in the EU during the 1970s and the early 1980s. After that, the decrease stabilized in most countries, but the SDR started to increase in Romania and in the three Baltic states (Estonia, Latvia and Lithuania). These countries had the highest SDRs in 1997, about three times that for the EU. The increase in the rate for Romania has mainly been caused by the rising mortality rates for males, since the female rate has been stable since the mid-1980s.

Romania's SDR for diseases of the respiratory system remains the highest among the reference countries, although it has declined since the 1970s. In 1997, Romania's rate was almost 40% higher than the EU rate.

The SDR for diseases of the digestive system was below the EU rate in the 1970s, but it has increased except from 1987 to 1990. From 1990 to 1997, the rate in Romania increased by more than 40% and was the second highest among the reference countries after Hungary, more than twice the rate for the EU in 1997.



External causes of death and injuries

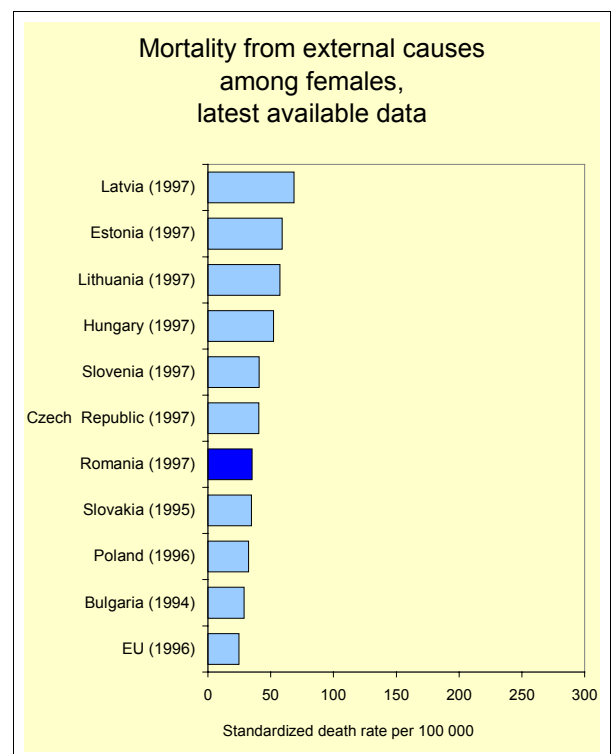
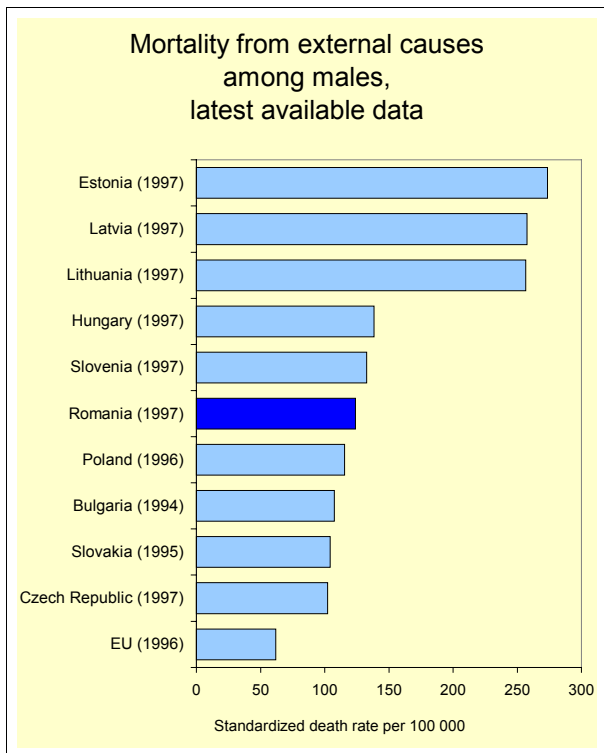
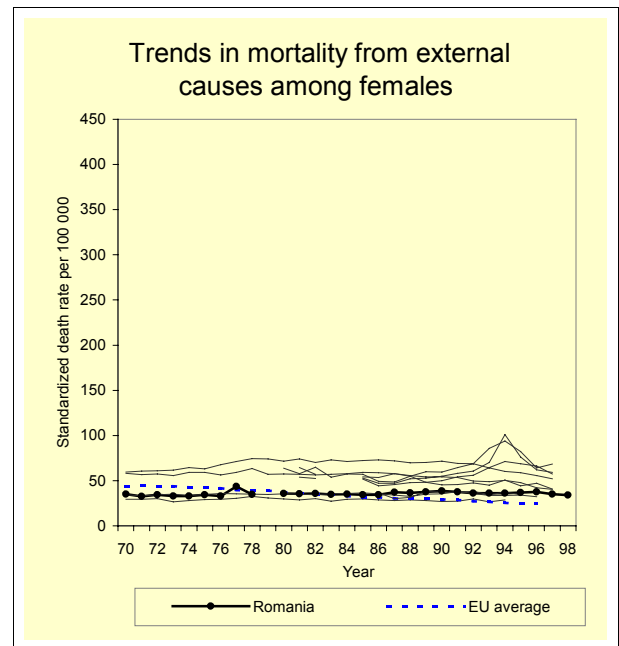
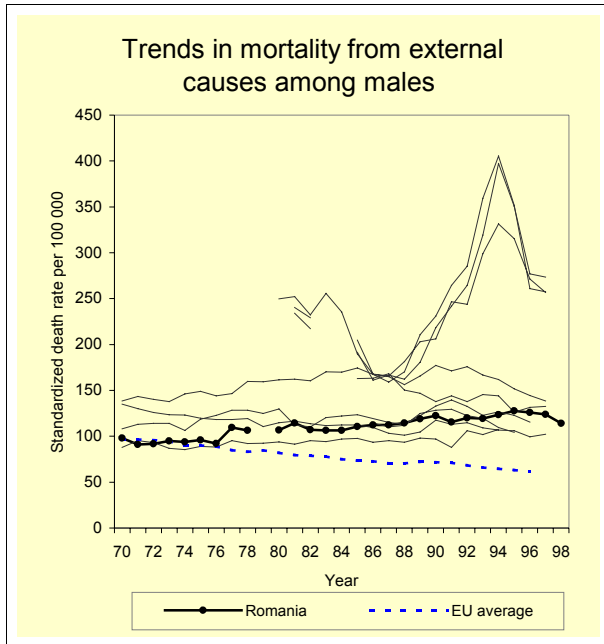
External causes of death and injuries covers all deaths caused by accidents, injuries, poisoning and other environmental circumstances or events such as violent acts (homicide) and suicide.

The SDR for external causes, injuries and poisoning for men in Romania equalled the EU rate in the early 1970s. Since then, the SDR has decreased in the EU but increased in Romania. Since the mid-1980s, this increase in Romania was the highest among the reference countries, excluding the Baltic states. Despite

this negative trend, Romania's rate was still below the rate for the reference countries in 1997.

Women have notably lower SDRs for external causes in general. In 1997, the SDR for external causes was more than three times higher for men than for women in Romania. Before 1985, Romania's SDR for external causes among women was below the EU rate, but

since then Romania's rate has remained constant while the EU rate declined by 22%. Between 1985 and 1997, the SDR for external causes among females decreased in all reference countries except Romania (no change) and the Baltic states (an increase). Nevertheless, Romania's SDR is still below the rate for the reference countries.



Romania's SDR for homicide and purposeful injuries exceeded the rate for the reference countries in the late 1980s. Since then, the SDR have been increasing in all the other reference countries (and especially in the Baltic states) except Romania, where the rate decreased slightly. However, Romania's SDR in 1997 was still above the rate for the reference countries and three times the EU rate.

The SDR for motor vehicle accidents was lower in Romania than in the EU and in most of the reference countries in the late 1980s. In 1990, Romania's SDR increased sharply but decreased until 1993 (the latest available data). The most recent SDR for Romania was one of the lowest among the reference countries but still 20% higher than the rate for the EU.

Mental health

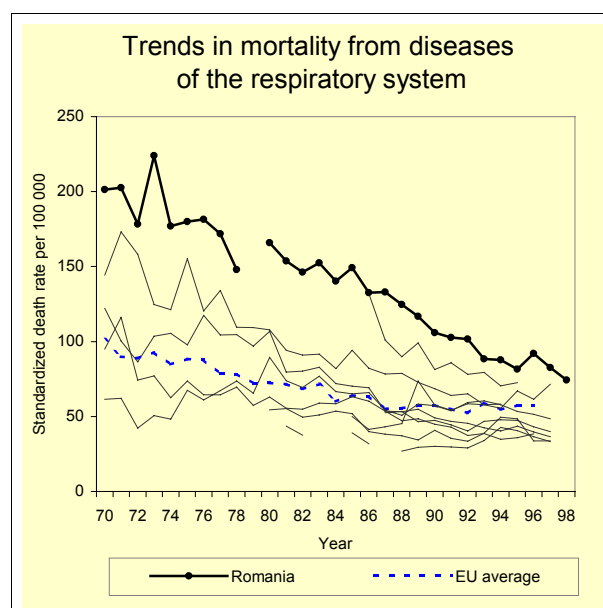
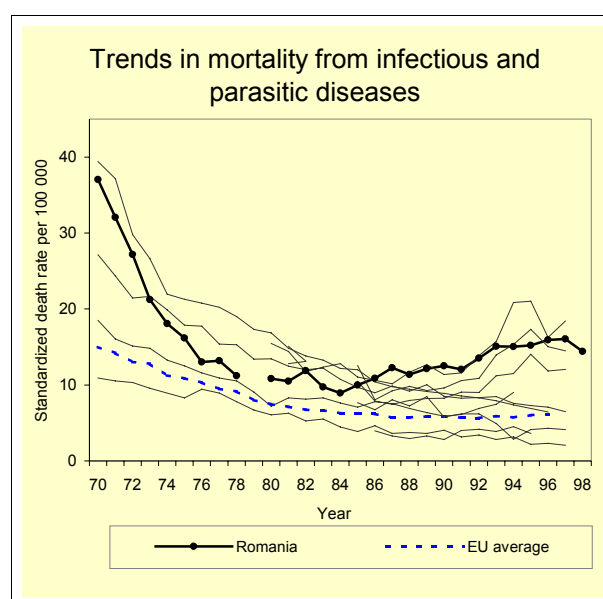
Although mental and psychosocial wellbeing is an important aspect of health-related quality of life, too little information is usually available to allow these very important dimensions of the population's health to be described reliably. Suicide can be used as a surrogate indicator of the overall level of mental health.

Romania has the lowest SDR for suicide and self-inflicted injury among the reference countries for both sexes. The SDR for men is slightly higher than the EU rate and the SDR for women is lower.

Between 1989 and 1998, the SDR for suicides and self-inflicted injury increased by 23% among males, whereas the rate for females declined by 27%, which widened the gender difference. In 1998, the suicide rate among men in Romania was 5.3 times higher than that of women, one of the greatest gender differences among the reference countries. According to an interview study in 1989, 10 of 1000 respondents had a severe mental disorder. The most common disorders were affective psychosis (4.5 per 1000), oligophrenia (3.5 per 1000), schizophrenia (1.0 per 1000) and dementia (1.0 per 1000). Among the population aged 60 years or older, the prevalence of dementia was 6.7 per 1000 (*Ministry of Health, 1997a*).

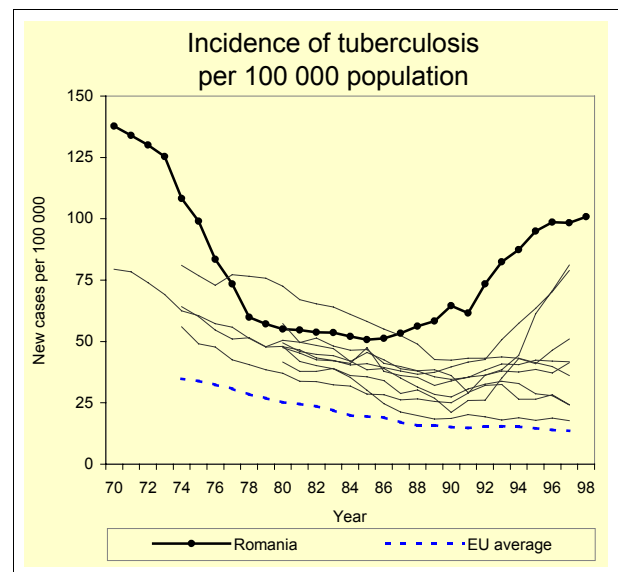
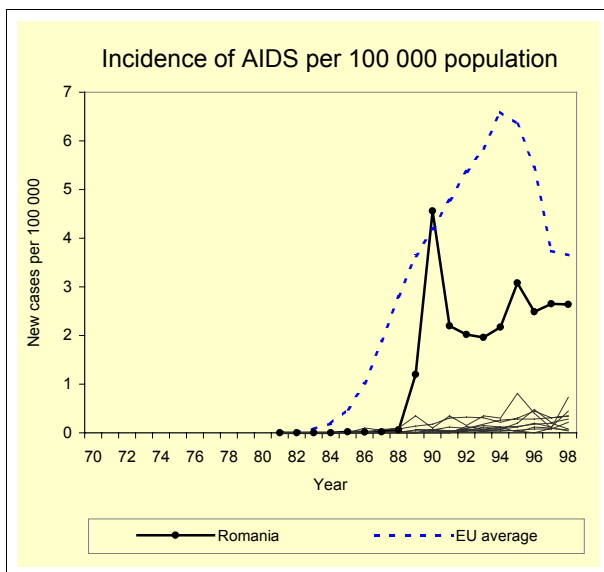
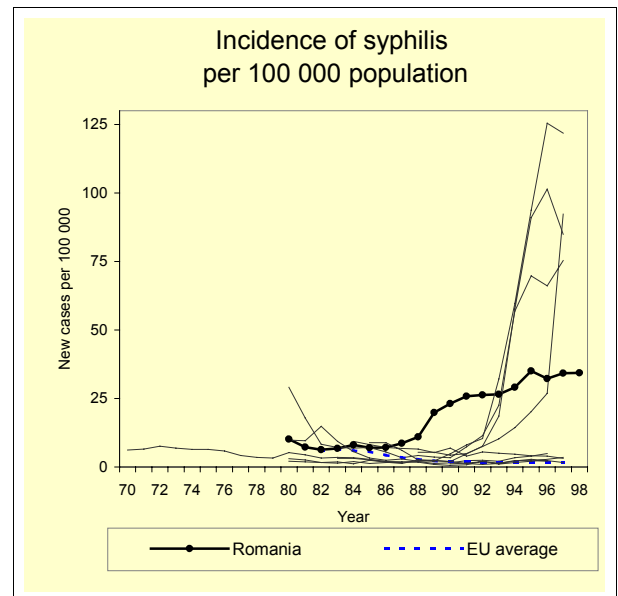
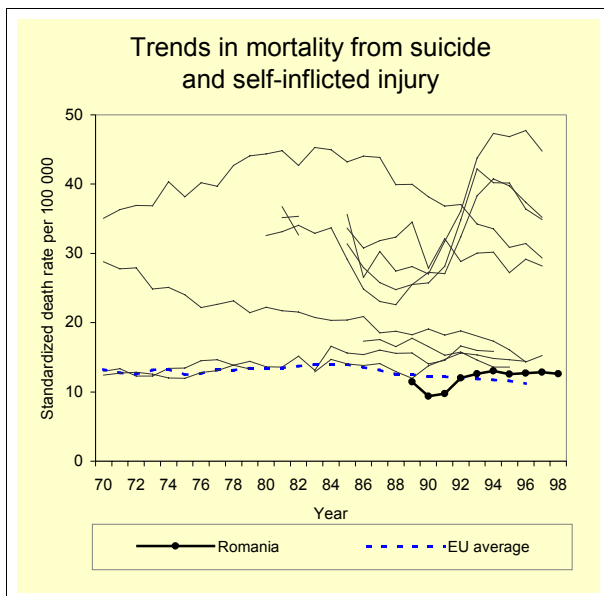
Infectious diseases

AIDS is caused by the human immunodeficiency virus (HIV), which can be transmitted in three ways: sexual transmission; transfusing infected blood or blood products or using non-sterile injection equipment; or from mother to child. The incubation period between initial HIV infection and developing AIDS is about 10 years or more. The number of notified cases of AIDS is rising in central and eastern Europe, although more people have been diagnosed with AIDS in western and northern Europe.



In Romania the incidence of AIDS varied from 1.9 to 4.6 per 100 000 from 1990 to 1997. In 1998, the incidence of AIDS was 2.8 per 100 000. This was the highest among the reference countries and almost four times the Slovene rate, which was the second highest. The incidence in the EU was higher than in Romania from 1990 to 1998. For example, in 1997 Romania's incidence rate was still some 25% lower than the EU rate. Nevertheless, this difference has decreased rapidly, since Romania's rate has climbed, while the EU rate has decreased sharply because of improved medication, which slows down the outbreak of AIDS.

The transmission groups for AIDS in Romania differ from those of the other reference countries. In total, 88% of all AIDS cases have been transmitted from mother to child, by blood or by nosocomial infection; only less than 2% of cases in the reference countries were in these groups. The main reason for these infections with HIV is injections with contaminated blood and needles. Homosexual and bisexual contacts (1%), injecting drug use (0%) and heterosexual contact (6%) are relatively small groups in Romania, even though they are the most common transmission groups in the other reference countries: 45%, 27% and 17% respectively. Romania has 99% of the



children 0–12 years old with AIDS in the reference countries. Even among people 13 years or older, Romania has one third of all AIDS cases in the reference countries (*European Centre for the Epidemiological Monitoring of AIDS: HIV/AIDS, 1998, United Nations Development Assistance Framework, 1998*).

Romania's incidence of tuberculosis was the one of the highest among the reference countries along with Poland in the 1970s and 1980s. The incidence declined rapidly until the mid-1980s and then started to increase again. Between 1985 and 1997 the incidence doubled, and the rate has been the highest in the reference countries since 1989. The current rate, although declining slightly, is also one of the highest rates in Europe (*United Nations Development Assistance Framework, 1998*).

The incidence of viral hepatitis in Romania has varied substantially. Romania had major epidemics of viral hepatitis in the 1980s. In the 1990s, the incidence has, however, decreased noticeably despite a slight increase in 1994–1995. Although the incidence decreased by 50% from 1985 to 1997, it was among the highest in the reference countries.

Romania had one of the highest incidence rates of syphilis among the reference countries in the 1970s. The rate remained relatively constant until the late 1980s, when it started to increase. The rate increased four-fold from 1987 to 1998, and only Bulgaria and the Baltic states had higher incidence rates of syphilis than Romania.

In 1997, Romania had the second highest incidence rate of mumps and rubella (after Poland) among the reference countries and had epidemics of measles in 1993 and 1997. Diphtheria has not been reported to be epidemic in Romania; epidemics have occurred in several newly independent states.

Long-term illness and disability

The prevalence of long-term illness and disability is an important indicator of a population's health status and health-related quality of life. However, few data are available on this. Few countries were able to provide data on new cases of impairment and disability, and

even these figures may give a misleading picture of the situation because of differences in definitions, data collection methods and national legislation on disease-related benefits. In an 1994 interview study of people 15 years and older in Romania, 42% of the respondents reported at least one chronic disease or long-term impairment. The proportion was the lowest in the age group 15–24 years (15%) and the highest in the age group 65 years or older (73%). According to the same study, the total prevalence of handicaps was 3.6%: 1.3% physical handicaps, 1.0% visual handicaps, 0.9% mental handicaps and 0.5% hearing or speaking handicaps. Being handicapped and having long-term impairment were correlated: for example, one third of physically handicapped people had at least one chronic disease or long-term impairment (*Ministry of Health, 1995*).

Self-assessed health

Comparable data are also lacking for the proportion of the population assessing their own health positively. The large observed variation may be caused by the differences in study settings or in data collection or by cultural differences. Among the reference countries, Bulgaria has the largest proportion of adult respondents assessing their health as being good: 62%. About half the population assessed their health as being good in Poland and Romania (55%), in Czech Republic (46%) and in Slovakia (45%) in contrast to Estonia (36%) and Latvia (26%).

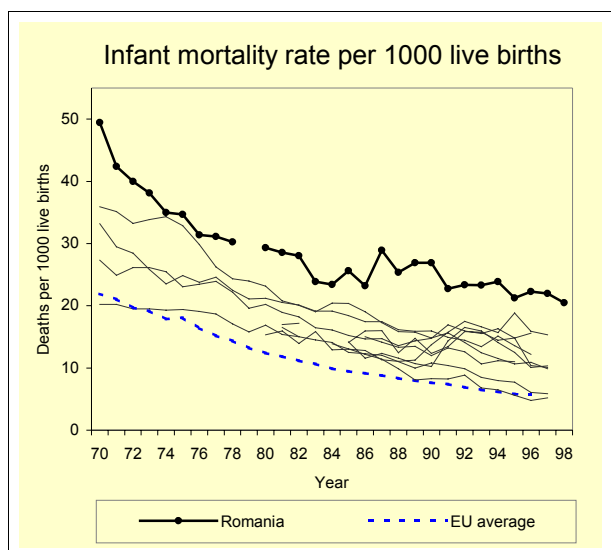
In all countries, men assessed their health as being good more often than women did. In Romania, the gender difference in self-assessed health was one of the largest among the reference countries: 61% of men but only 49% of women assessed their health as being good. As expected, the proportion of the population assessing their health as being good was highest among the youngest age groups. There were no differences between respondents in the urban and rural areas (*Ministry of Health, 1997a*).

Health of children and adolescents

The infant mortality rate decreased in almost all the reference countries since 1985. Even though Romania's infant mortality rate declined by 24% from 26.9 to 20.5 until 1998, Romania still had the highest rate among the reference countries.

The main causes of infant mortality in western Europe are malformations and perinatal conditions, which cause 82% of all infant deaths in the EU. The third most common cause is sudden infant death syndrome (11%), whereas external causes, infectious and parasitic diseases and diseases of the respiratory system are responsible for 2–3% of deaths. In Romania, most infant deaths are related to perinatal conditions and malformations (57%), but the proportion of diseases of the respiratory system is much higher than in the EU (37%). Deaths from external causes and from infectious and parasitic diseases are more common in Romania (4–5%) than in the EU. Sudden infant death syndrome is practically not diagnosed (0.1% under diseases of the respiratory system).

The proportion of children that weigh less than 2500 grams has often been used as an indicator for the health of newborns. In the EU, 6.0% of all children had low birth weight. The proportion was 22% higher in the reference countries (7.3% in 1997) and 50% higher in Romania in 1998 (9.0% in 1998). This 9.0% has though declined from the maximum in the 1990s, 10.7% in 1993 (*United Nations Development Assistance Framework, 1998*).



Children in most reference countries have good immunization coverage. In Romania, immunization coverage of 96% or more was reported for all diseases except for measles (93%) and poliomyelitis (94%).

According to a national nutrition survey in 1993, 82% of infants were breastfed at 6 weeks, 60% at 3 months and 43% at 6 months. Even though these figures were relatively high, the proportion of breastfed children has decreased significantly compared with the results of a similar study in 1991 (*Ministry of Health, 1997a*). Data from 1995 suggest that the decreasing trend has continued, especially in urban areas (*United Nations Development Assistance Framework, 1998*).

Anaemia is a major health problem for children in Romania. In the mid-1990s, 49% of children under 5 years of age were anaemic (having a haemoglobin level below 110 mg/dl). The proportion was even higher for children younger than 1 year living in institutions: 59% (*United Nations Development Assistance Framework, 1998*).

Children with disabilities and others who experience difficulty in learning are often marginalized within or even excluded from school systems. In the countries of central and eastern Europe, the dominance of a traditional medicalized approach resulted in these people being educated in separate special institutions. In the 1990s, most of the ten reference countries have moved towards integrating these children, even though progress has been slowed by economic problems (*Ainscow & Haile-Giorgis, 1998*).

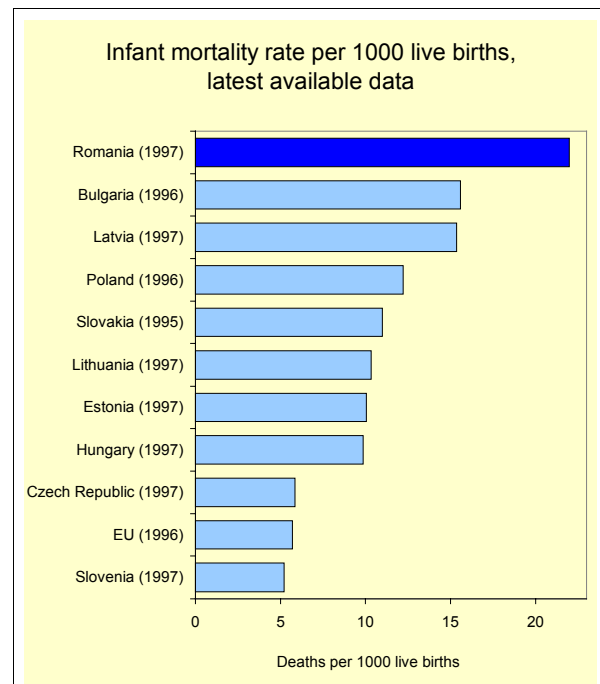
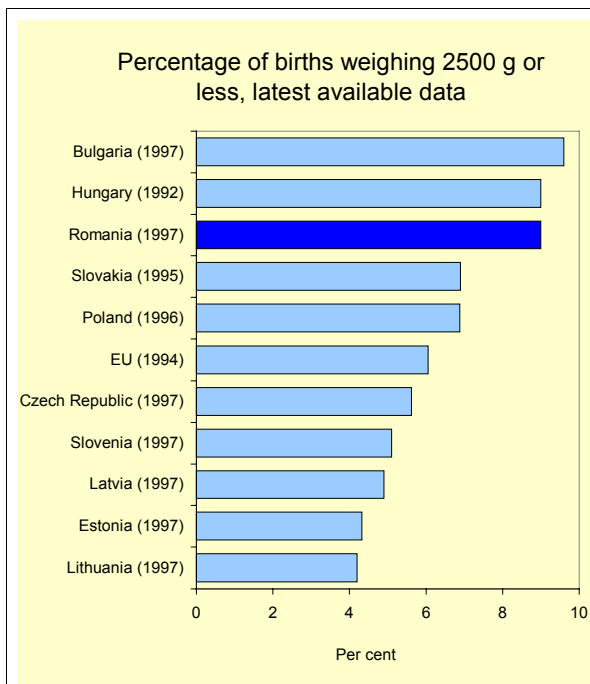
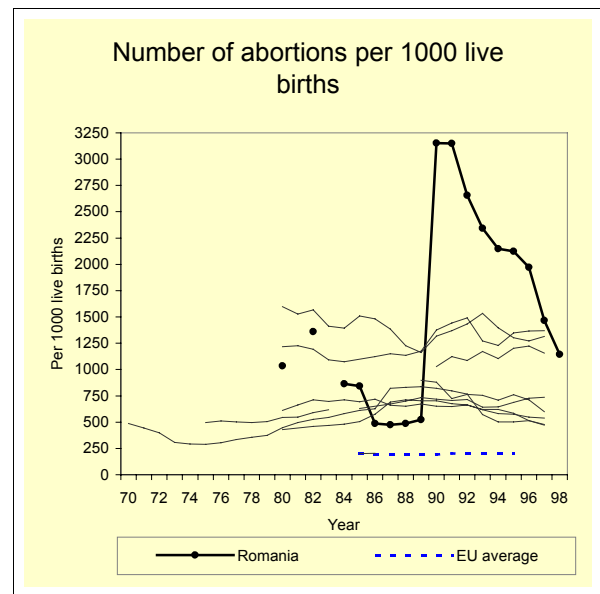
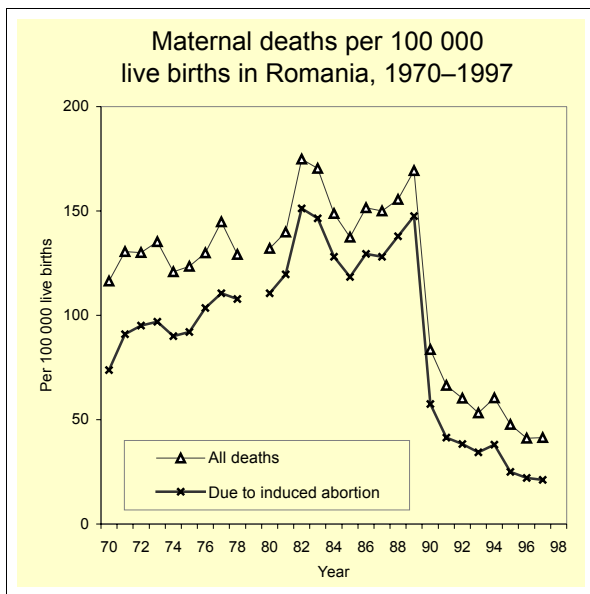
Romania has many children and adolescents who are not living at home but in residential facilities. Few are orphans; most have been abandoned because of their health (56%) and socioeconomic problems in the family (41%). In 1997, Romania had almost 100 000 of these children, or 1.7% of all children and adolescent younger than 18 years. This figure does not include street children and those abandoned in medical facilities. Their numbers in 1997 were estimated to be 2000–5000 and 3300, respectively (*United Nations Development Assistance Framework, 1998*).

In general, the oral health of children has improved both in the EU and in the reference countries in the 1990s. However, this has not been the case in Romania. The DMFT index score (the number of decayed, missing or filled teeth) of 3.1 in the mid-1980s in Romania increased to 3.4 in 1995.

Adolescents make efforts to take on adult roles. This transition involves experimentation and imitation, which can make young people vulnerable to damage to their health. Acute

health problems can result from accidents, experiments with drugs, unsafe sex or unwanted pregnancies. In the longer run, adopting an unhealthy lifestyle pattern can lead to chronic degenerative diseases. This is also a transition phase in the life cycle when social insecurity compounded by, for example, unemployment, can lead to mental health problems.

One of the few routinely available indicators for adolescents' sexual health and behaviour is the rate of teenage childbirth, which can reflect



social factors as well as access to and use of contraception. The percentage of live births among young women aged 15–19 years has been declining in all the reference countries except Lithuania since 1980. In some countries the decrease has been remarkable, up to 84% in Slovenia. In Romania the decrease was 44% from 1980 to 1997, when there were 41 live births per 1000 women aged 15–19 years in 1997, the second highest among the reference countries (*Council of Europe, 1998a*).

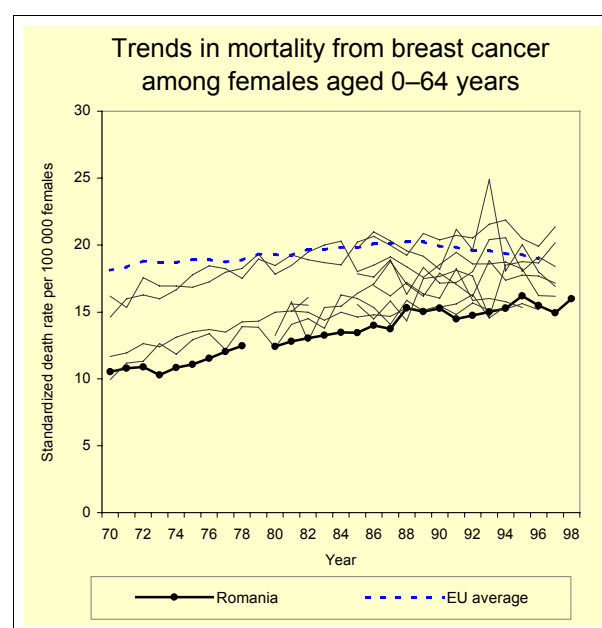
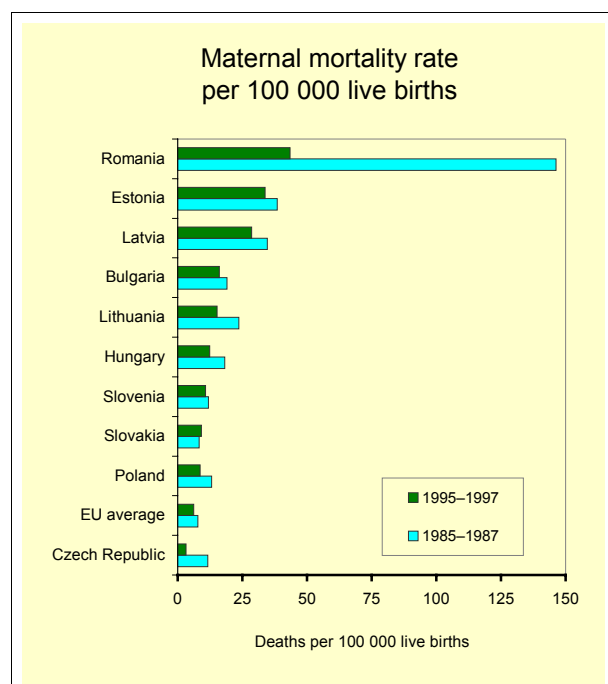
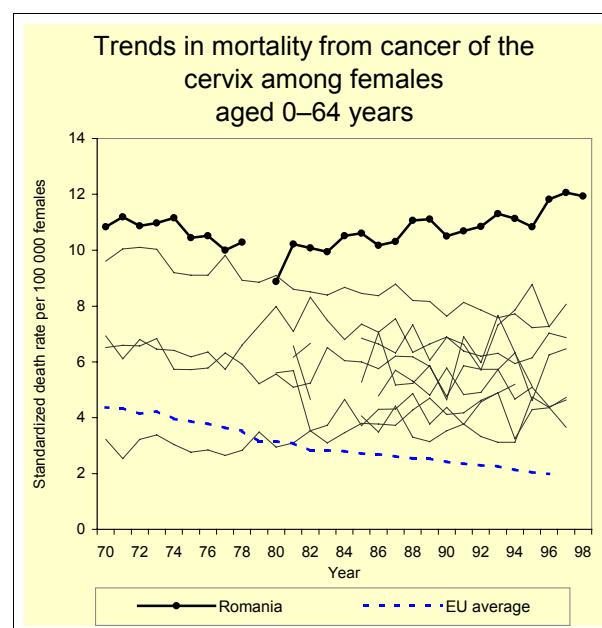
Women's health

Women as a group live longer than men and have lower mortality rates for all causes of death. For example, in Romania, the SDR for cancer in the age group 0–64 years was 40% lower among women than among men in 1998.

The gender difference in Romania was even larger for the SDR for diseases of the circulatory system, since the female rate was 56% lower than the male rate. However, women have higher reported rates of morbidity and utilization of health care services (especially around childbirth), and they can be more affected by social welfare policies than men are.

Maternal mortality rate has declined noticeably since the 1980s in almost all reference countries. Romania had the greatest decline:

66% between the mid-1980s and the mid-1990s. The main reason for the decline in Romania was legislation passed in 1989 making access to induced abortion easier. Before the law was revised, 147 maternal deaths per 100 000 live births were caused by induced abortion, but this rate declined to 21 in 1997. Despite this positive trend, the current maternal mortality rate in Romania is the highest among the reference countries: 43 per 100 000 live births, seven times the EU rate.



In the countries of central and eastern Europe and in the newly independent states, induced abortion was a common contraceptive method because modern contraceptives were lacking. The number of induced abortions was therefore usually much higher than in western European countries.

Romania has undergone the most striking changes in Europe in the number of induced abortions. Strict legislation stipulated the reasons justifying an induced abortion, and the rate of registered induced abortion was the lowest among the reference countries in the late 1980s: 480 per 1000 live births in 1987. The laws on abortion were changed in 1989, and the number of registered abortions increased from 193 100 in 1989 to 992 300 in 1990. At the same time the number of live births declined from 369 500 in 1989 to 314 700 in 1990 and 275 300 in 1991. The large changes in the total number of pregnancies (births and induced abortions) suggest that illegal induced abortions were common during the late 1980s, which would also explain the extremely high maternal mortality rate in Romania during that period. The number of induced abortions declined to 347 200 in 1997.

The induced abortion rate per 1000 live births peaked at 3151 in 1990–1991 but declined by more than 50% to 1465 per 1000 live births in 1997. This rate was still the highest among the reference countries, but in 1998 the Romanian

rate continued to decrease to 1144 per 1000 live births, which was a lower rate than in Bulgaria, Estonia and Latvia the previous year.

Since the 1970s, Romania's SDR for breast cancer among females has been the lowest among the reference countries. Between 1989 and 1998, the rate increased by 18% in Romania, one of the highest increases among the reference countries, and several reference countries now have a rate similar to that in Romania. The SDR in Romania was still lower than that of the EU, but the difference has declined: Romania's rate was 42% lower than the EU rate in 1970 but only 23% lower in 1997.

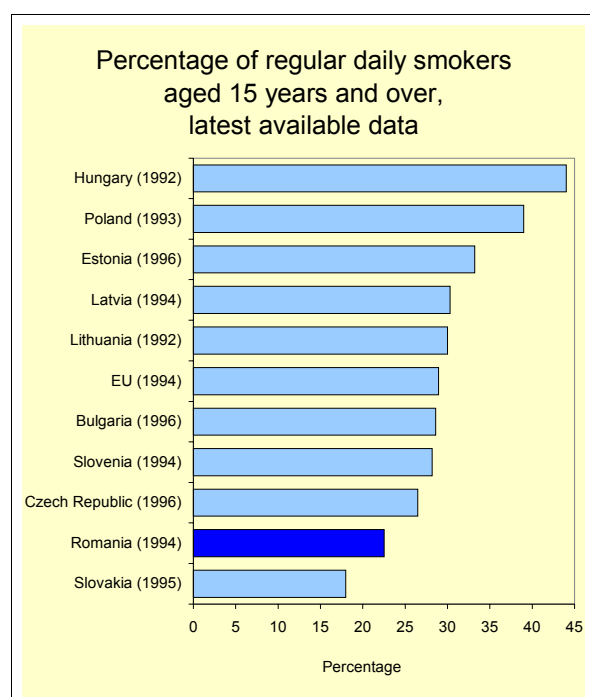
Violence against women has received limited attention as a public health issue. Data on the incidence and type of such violence are lacking. The SDR for homicide and purposeful injury among women can be used as a surrogate indicator. Between 1989 and 1998, the homicide rate among females in Romania decreased by 23%, whereas the rates for most reference countries increased. However, Romania's rate (1.9 per 100 000 females in 1998) is almost three times the EU rate and four times the lowest rate among the reference countries.

National data have shown that the number of rapes reported to police has increased significantly during the 1990s (*United Nations Development Assistance Framework, 1998*).

LIFESTYLES

Among the factors (including genetics and the physical and social environments) influencing health, behaviour substantially affects the health and wellbeing of each individual and the population. Lifestyle patterns such as nutritional habits, physical activity and smoking or heavy alcohol consumption together with the prevalence of such risk factors as elevated blood pressure, high serum cholesterol or overweight influence premature mortality, especially from cardiovascular diseases and cancers. These diseases are the main causes of death in Europe. Unhealthy behaviour also contributes to a wide range of other chronic illnesses and thus affects the quality of life in general.

Lifestyle, however, is also influenced by behavioural patterns common to a person's social group and by more general socioeconomic conditions. Evidence is growing that, at least in most western European countries, improvements in lifestyles have largely been confined to the more socially and economically privileged population groups, who are better placed to adopt health-promoting changes in behaviour (*WHO Regional Office for Europe, 1993a, 1999*).

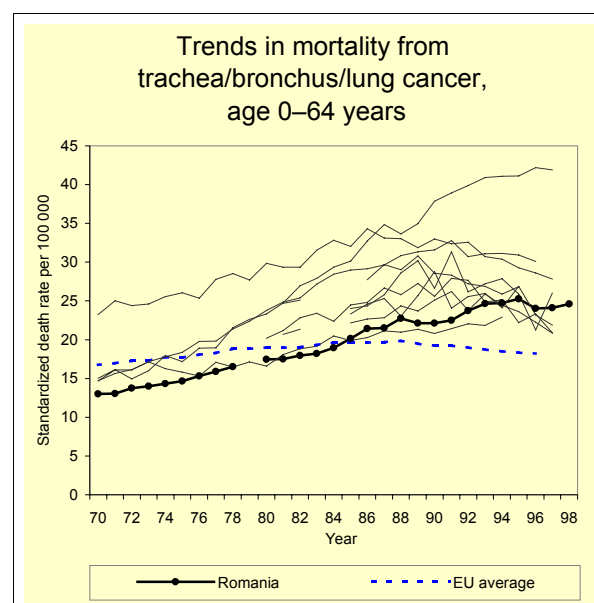


Tobacco consumption

The prevalence of smoking in Romania was the second lowest among the reference countries. In 1994, more than every third man and every tenth woman in Romania smoked regularly. Since 1989, the proportion of male smokers has decreased but the proportion of female smokers has increased (*Ministry of Health, 1997b*). In addition, the percentage of heavy smokers – those smoking 20 cigarettes or more per day – decreased from 13% of people aged 15 years or older in 1989 to 9% in 1994 (*Ministry of Health, 1995*).

Smoking is most common among people aged 20–29 years for both sexes; 55% of men and 20% of women aged 20–29 years smoke. The occupation-specific data show most smokers among male workers (57% of both skilled and unskilled workers) and among women with higher education (33%) (*Ministry of Health, 1997a*). Many medical students smoke: 34% of the first-year students and 54% of the fifth-year students in 1992 (*WHO Regional Office for Europe, 1997*).

In the mid-1980s, Romania had one of the lowest numbers of cigarettes smoked per person in the reference countries and about 15% lower than the average number in the EU. In



the late 1980s and the early 1990s, the number of cigarettes smoked in Romania decreased rapidly by 35% to 1014 cigarettes. This was, however, followed by a rapid increase over 4 years and a decrease since 1995. Even though the number for 1997 (1663 cigarettes per capita) was the smallest after the Baltic states, the number of cigarettes smoked per person in Romania has exceeded the level for the EU since the mid-1990s. Increased black-market sale or increased importation of tobacco products may, however, explain some of the variation observed in these figures, at least in the 1990s.

The mortality from cancer of the trachea, bronchus and lung can be used to indicate the trends and positions of countries in relation to the deaths caused by smoking. In the 1970s and the early 1980s, Romania's SDR for these causes among men was the lowest among the reference countries and well below the EU rate. However, Romania's SDR was increasing and reached the EU rate in the mid-1980s. The SDR in Romania has continued to increase, more than 20% since 1985, whereas several reference countries had a decreasing trend. Even though Romania's SDR for cancer of the trachea, bronchus and lung was still below the rate for the reference countries, it was already 45% higher than the EU rate in 1997.

Among the women in Romania, the SDR for cancer of the trachea, bronchus and lung has been near the average for the reference countries and that of the EU in the 1970s and the 1980s. Since then, the SDR for the reference countries and for the EU have been increasing more rapidly than that in Romania.

Since more men than women smoke in Romania, as in almost all countries, the SDR for cancer of the trachea, bronchus and lung differs greatly by gender. The SDR for these causes among men in Romania was seven times that among women, a larger difference than in the EU (four times).

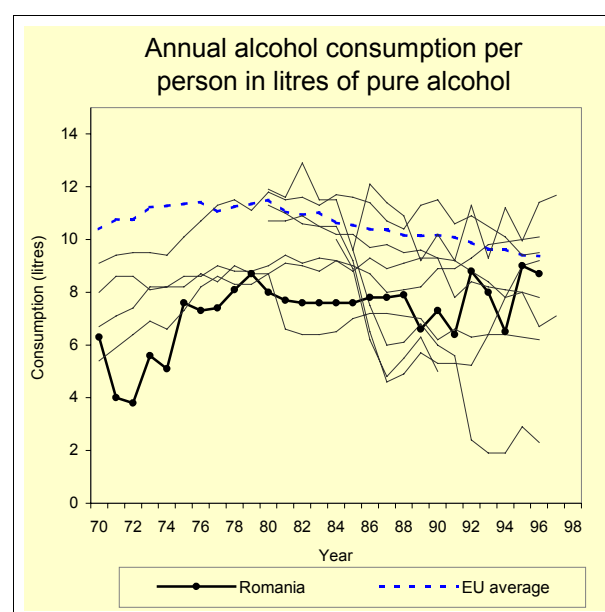
Alcohol consumption

The registered consumption of alcohol per person in Romania increased from the mid-1980s until 1997 from 7.6 to 9.2 litres of pure alcohol

(+21%), whereas the consumption in EU declined from 10.6 to 9.4 litres (-11%). Romania consumed less than the reference countries in 1985 but more in 1997. Besides the increasing consumption in Romania, this can be explained by problems in registering alcohol consumption in some central and eastern European countries. For example, some Baltic states recorded a remarkable decrease up to 65% in the 1990s, but local studies reported a very high level of unrecorded consumption as well as illegal import and production (*WHO Regional Office for Europe, 1997*).

According to more detailed statistics, the registered consumption of spirits increased in Romania from 2 litres to 4.5 litres between the mid-1980s and 1997. At the same time, however, the annual consumption of beer decreased from 48 litres to 37 litres and the consumption of wine from 28 litres to 24 litres (*Produktschap voor Gedistilleerde Dranken, 1998*).

According to a local study performed in 1994, 56% of respondents aged 15 years or older – 74% of men and 40% of women – reported consuming alcohol. Nine per cent of the respondents drank at least 2–3 times per week: 17% of the men and 2% of the women, and 12% of the rural respondents versus 7% of the urban respondents. Since 1989, the proportion of people who consume alcohol has declined

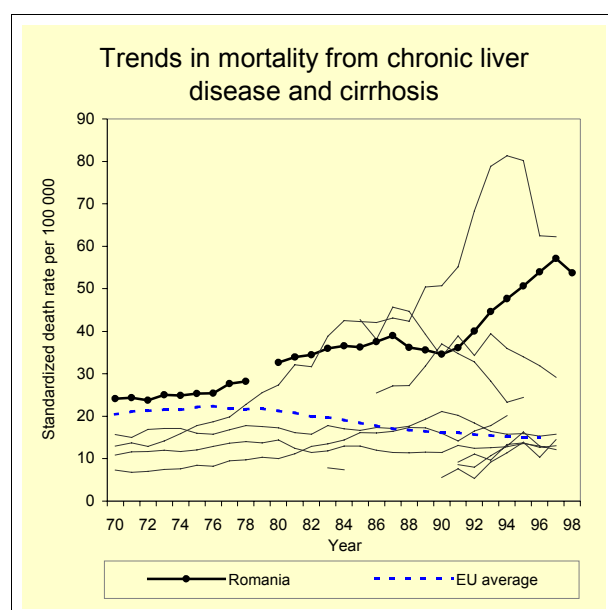


slightly, but the proportion of people consuming it at least 2–3 times per week has increased (*Ministry of Health, 1995 and 1997b*).

The number of deaths from chronic liver disease and cirrhosis can be used to estimate the harmful effect of alcohol. In the 1970s, Romania's rate was among the highest in the reference countries and above the EU rate. Since then, Romania's rate continued to increase, while the EU rate decreased. This difference has even increased in the 1990s, since the rate in Romania has increased by 55% since 1990. In 1997, Romania had the second highest SDR for chronic liver disease and cirrhosis among the reference countries (after Hungary), and the rate was almost four times the EU rate. The rates were equal for the sexes in all reference countries, but men had a higher mortality risk than women. In Romania, the SDR for men was twice that for women. This was the smallest gender difference among the reference countries but approximately the same as the difference for the EU.

Illicit drug use

Comparable data on drug use are rare. In general, the reference countries have reported increased drug use in the 1990s, even though the level is still lower than in the EU.



The main illicit drug problem in Romania is the use of inhalants, especially among young people and street children. Romania appears to have the lowest use of cannabis among the reference countries, although incipient use has been reported among high school students. There are few reported cases of the use of injected drugs (heroin or synthetic narcotic analgesics) and opium. Drug trafficking cases are rare. A considerable percentage of the people involved in these cases have been reported to be non-Romanian nationals (*WHO Regional Office for Europe, 1997*).

Nutrition

Nutritional habits are rooted in cultural traditions and food production. Nevertheless, in recent decades changes have occurred with increasing globalization, as global food markets have opened up, transport has become more rapid and more efficient techniques for conserving food have been developed. These factors together with increased mobility and increases in purchasing power are some of the reasons why the historically different nutrition patterns in Europe appear to converge.

The historical differences in western Europe between the northern and southern dietary patterns are confirmed by national food balance sheets (data relating to the amount of food available within each country) collected since the 1960s by the Food and Agriculture Organization of the United Nations. Typical for northern Europe is a high availability of saturated fat accompanied by a low availability of fruit and vegetables. In contrast, in southern Europe, the Mediterranean diet consists of high quantities of fruit and vegetables and low quantities of saturated fat.

The data of the Food and Agriculture Organization of the United Nations suggest that Romania follows the pattern for southern Europe except that the availability of fruit and vegetables appears to be low. However, home-grown fruit and vegetables may not be recorded in this data, and the actual intake should be verified by dietary intake surveys.

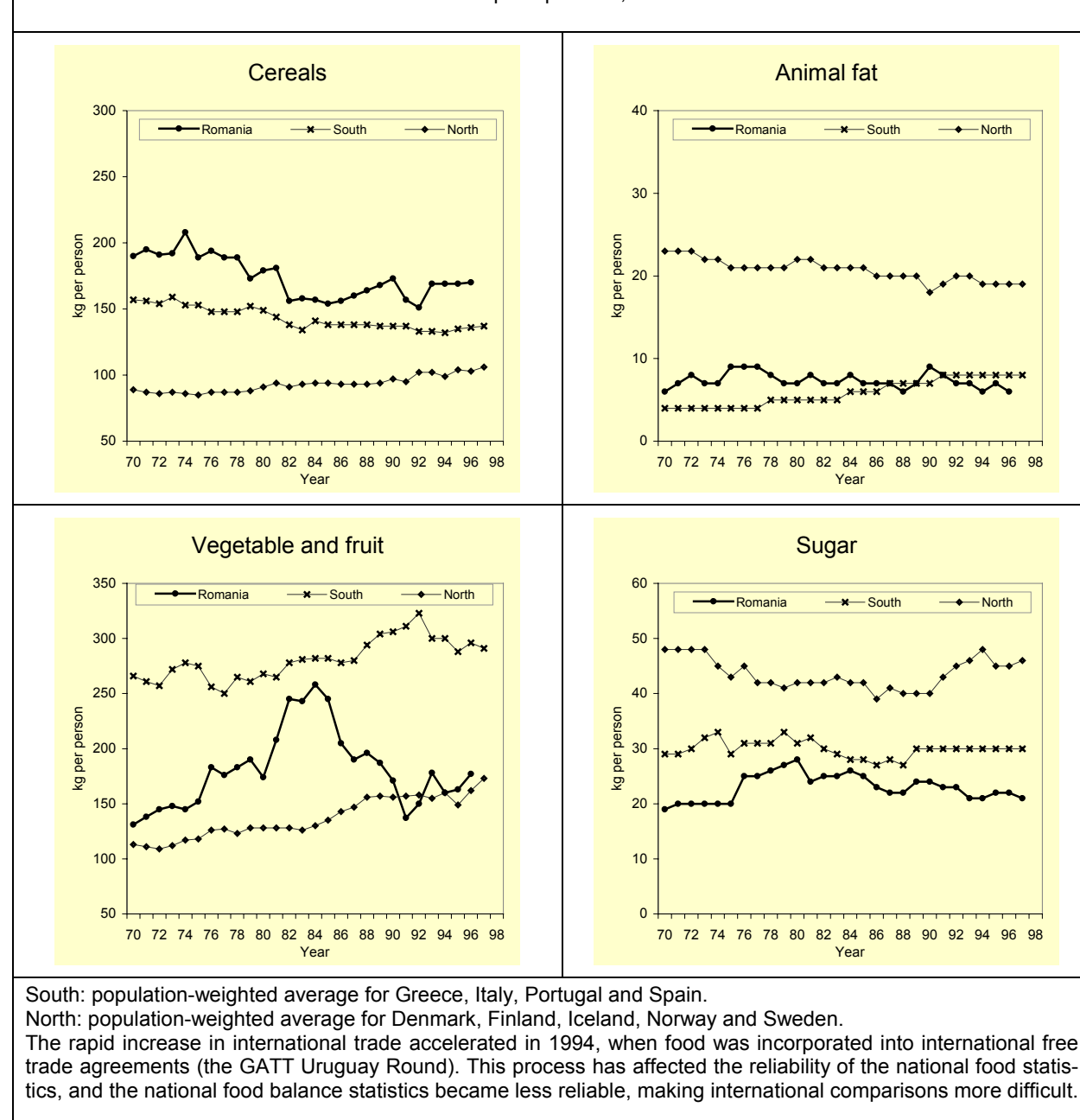
High blood pressure

A national interview study in 1989 found that 16% of the population sample aged 15 years or older reported that they had hypertension and 32% had a cardiovascular disease. Both of these conditions were more common among women (17% and 33%).

Overweight

In the 1989 interview study, 11% of the respondents reported being obese (*Ministry of Health, 1997a*).

Food consumption patterns, 1970–1997



ENVIRONMENT AND HEALTH

Environmental conditions affect humans through short-term and long-term exposure to noxious factors. In the long term the main objective is to promote sustainable development compatible with good health. Short-term environmental protection means avoiding or at least reducing potentially harmful situations, bearing in mind that people are not exposed equally to adverse environmental conditions and not all people and social groups are equally vulnerable to them. Thus, children, pregnant women, elderly people and ill people are more likely to be affected by polluted air or contaminated food. Also, specific population groups tend to experience more adverse environmental conditions. Low income, for instance, is often associated with exposure to environmental hazards at work (noxious substances and risk of accidents) and poor housing conditions (such as crowding, air pollution and noise). These situations may affect health and wellbeing either directly or indirectly by causing discomfort and stress, giving rise to unhealthy coping behaviour such as the use of intoxicating drugs or heavy drinking.

The increased recognition of the importance of the effects of the environment on health and the need for intersectoral action at all levels has been demonstrated by the development and implementation by nearly all European countries of national environment and health action plans (NEHAP). In Romania, the Ministry of Health and the Ministry of Water, Forestry and Environmental Protection together with a number of other ministries and other central and local authorities coordinated the development of the national environment and health action plan (*Ministry of Health, 1997c*). The plan is intended to complement the 1995 National Environment Protection Plan.

Microbial foodborne diseases

The number of microbial foodborne outbreaks and the number of people who have suffered from these diseases can be used as to indicate the quality of food and its production, even

though some of the observed variation can be caused by differences in definitions and data-collection methods.

According to the most recent data from the mid-1990s, the variation between the reference countries is large (from 13 people affected by microbial foodborne outbreaks per 100 000 population in Romania to 464 per 100 000 in the Czech Republic). Although microbial foodborne diseases have been increasing in Romania since 1989 (*Ministry of Health, 1997c*), the rate is still the lowest among the reference countries. In 1996, meat – mostly pork and sausages – caused 38% of the outbreaks. Eggs and mayonnaise (19%), milk products (17%) and cakes (14%) caused several outbreaks. A total of 76% of milk samples, 41% of yoghurt samples and 30% of ice cream samples did not comply with the national quality standards in 1996 (*Ministry of Health, 1997c*).

In the early 1990s, there were reports of food products with metal contamination in Romania. This concerned dairy and meat products, bread, flour and some vegetables with concentrations of lead, cadmium, chromium, copper and arsenic exceeding the maximum permitted limits. In addition, some products, such as dairy products, were contaminated with organochlorine pesticides. Aflatoxins, ochratoxins, nitrates, nitrites and radionuclides were absent or within safe limits (*Ministry of Health, 1997a*).

Air quality, water and waste

Increasing quantities of waste are being generated in almost all countries, with serious implications for health from the resulting pollution of the air, water and soil. In 1995, Romania had lower emissions per person of sulfur dioxide, nitrogen dioxide, ammonia and carbon dioxide than the reference countries but somewhat higher emissions of carbon monoxide and almost 20% higher emissions of methane. Romania emitted 27% more sulfur dioxide per person than did the EU, but the emissions of

nitrogen dioxide and carbon dioxide were considerably lower than in the EU (*United Nations Economic Commission for Europe, 1999*).

Emission of selected air pollutants in kg per person in Romania, in the reference countries and in the EU in 1995			
	Romania	Reference countries	EU countries
Sulfur dioxide	40.1	68.3	31.5
Nitrogen dioxide	14.1	25.3	32.4
Ammonia	9.7	10.7	9.4
Carbon monoxide	102.3	99.1	119.3
Carbon dioxide	5487	7555	8499
Methane	66.5	56.5	61.4

In 1994, 89% of surface water met EU standards and the amount of contaminated water in rivers was reported to be decreasing, but surface waters still had problems with microbial contamination or contamination with organic matter and pesticides (*Ministry of Health, 1997a*). The main problems with drinking-water are the unsuitable bacterial quality of the surface sources, the pollution of the lakes used for drinking purposes and contamination with pesticides. The quality of drinking-water is not yet controlled (*Ministry of Health, 1997c*).

According to national data, Romania generated 17 million tonnes of fly ash from power plants, 7.5 million tonnes of manure, 6.8 million tonnes of chemical, metallurgical and industrial waste, 2.7 million tonnes of oil residues and 3500 tonnes of radioactive waste in 1992. Less than 2% of the 7.3 million tonnes of waste from urban areas is recycled. Illegal importation of hazardous wastes from western Europe, including radioactive waste and pesticides, has been reported (*Ministry of Health, 1997a*).

Fourteen areas have been identified as intensively polluted, mostly by metallurgy and the chemical and petrochemical industries. About 1.5 million inhabitants (6% of the population) live in these areas, and the residents have elevated prevalence rates of health problems. For example, the children living in these areas have a higher prevalence of chronic respiratory diseases and higher concentrations of lead in

blood than do children living in other parts of Romania (*Ministry of Health, 1997c*).

Housing

Housing conditions affect people's health and wellbeing, but the health situation of homeless people is especially critical. They often suffer from health problems typically associated with poverty, including malnutrition, infectious diseases and psychosocial stress caused by solitude and insecurity, and they may also be more vulnerable to health problems than the rest of the population. Nevertheless, there are no reliable data on homelessness in the reference countries.

The average dwelling size in Romania (34 m²) is the lowest among the reference countries and much lower than the average for the reference countries (54 m²) or the EU (89 m²). In Romania, 92% of dwellings were owner-occupied in 1995. This was one of the highest percentages among the reference countries and higher than in any EU country (*United Nations Economic Commission for Europe, 1999*).

One aspect of the quality of housing is the proportion of population connected to drinking-water and with access to hygienic sewage disposal. In 1992, 62% of households were connected to drinking-water, the lowest figure among the reference countries (*United Nations Economic Commission for Europe, 1999*). The proportions for households in urban (70%) and rural areas (10%) differed substantially. According to national data, half the population – a vast majority of the urban population but only 16% of the rural population – had access to drinking-water meeting national standards (*Ministry of Health, 1997a, United Nations Development Assistance Framework, 1998*). Only 44% of all Romanians had access to hygienic sewage disposal in 1992. The urban (81%) and rural (3%) areas differed vastly on this.

About 180 000 of the 7.19 million dwellings (2.5%) were believed to be below national standards for amenities in the mid-1990s (*Ministry of Health, 1997a*).

Road traffic noise has been identified as the most harmful and widespread stress agent, affecting about 60% of the urban population. The level of noise insulation in dwellings fails to meet the standards in 90% of the cases investigated (*Ministry of Health, 1997c*).

Occupational health and safety

Exposure to health hazards at the workplace is still an important cause of ill health and death. Nevertheless, information about exposure in terms of the type, frequency and intensity of hazards and the number of workplaces or people affected is scarce.

The rates of injuries from work-related accidents per 100 000 population varied substantially among the reference countries, which suggests that the figures may describe different phenomena in the countries. Nevertheless, the number of such injuries has declined in all reference countries by an average of 47%, from 592 to 274 per 100 000 population between 1985 and 1997. In Romania, this decline was slightly smaller: 42%.

The data on deaths from work-related accidents may be more comparable than the data on injuries. The number of deaths has decreased in all reference countries, which confirms that occupational safety has improved. Between 1985 and 1997, the number of deaths in work-related accidents decreased from 3.8 to 2.0 per 100 000 population in the reference countries (a decrease of 47%). In 1997, the figure for Romania (2.4 per 100 000, a 36% decrease since 1985) was greater than in the reference countries or in the EU (1.6 per 100 000, a 25% decrease since 1985).

About 980 000 industrial employees (30% of all industrial employees) are exposed to one or more occupational noxious conditions, and the conditions do not meet the national standards in one out of three cases. The number of reported cases of occupational disease increased from 1400 to 2000 between 1988 and 1996, but even the most recent numbers are probably an underestimate because the reporting system is deficient (*Ministry of Health, 1997c*).

HEALTH CARE SYSTEM

Institutional structures and resources

Romania has a long tradition of organized health care. Between the First and Second World Wars, certain groups of workers were insured by a social insurance system based on sickness funds. Nevertheless, only 5% of the population was covered. In 1949, the transition to a health care system with universal coverage and free access to health services was started. In 1983, out-of-pocket payment was introduced for some services, but all services were still provided in state-owned facilities.

After 1989, the Ministry of Health issued a series of decrees and orders that have led to major changes over time. Despite these great changes, the Romanian constitution still includes the right to health care. The health care system is almost entirely owned by the state and consists of a network of hospitals, polyclinics, dispensaries and other health institutions coordinated by the Ministry of Health through 42 regional health directorates. There are also smaller parallel networks of health facilities owned by other bodies (other ministries and the Romanian Intelligence Service) that run health services. Private practice has been allowed since 1990, but it has to be authorized by the Ministry of Health.

Prior to 1998, Romania's health care system was mainly financed by government revenues received from direct and indirect taxes, but also from local government budgets, from the Special Health Fund and from some external sources. The Health Insurance Scheme, introduced in January 1998, changed this situation. The new system is based on a social health insurance fund to which both employers and employees contribute 7% of gross wage and salary income. In the short term, this scheme is not expected to cover all the needs of the health care system, and the state health budget is still used to cover the fundamental needs of the health care system. Additional funding is especially needed for investment in the public health care system and national programmes in preventive medicine, health promotion and primary health care.

Free health care services are guaranteed for all employees and their families, pensioners, self-employed and unemployed people, children up to the age of 14 and pregnant women, and this ensures almost universal coverage. Officially, no payments is required at the point of delivery for most services, but "under-the-table" payments are not unknown. There are copayments for some services, such as dentures and abortions.

Health care resources in Romania and in the reference countries (1998 or latest available)				
	Romania	Reference countries	Minimum	Maximum
Hospital beds per 100 000 population	728	738	562	962
Physicians per 100 000 population	183	266	183	395
Hospital admissions per 100 population	20.3	17.1	11.6	24.2
Average length of hospital stay in days	10.0	10.6	9.1	12.5
Total health care expenditure as a percentage of GDP	2.6	5.1	2.6	7.7

Pharmaceuticals are free in hospitals, but in other cases essential drugs are reimbursed at either 50% or 80% (*WHO Regional Office for Europe, 1996*).

Health care reforms

Romania began its process of health care reform in the early 1990s with major problems, such as chronic underfunding of the health system and low staff salaries and morale. The political objectives of reforming the health care system have been to decentralize the health care system, to create competition among providers and to improve the health status of the population (*Ministry of Health, 1997a*).

Since 1990, the Government and Ministry of Health have introduced health care reforms focusing on the reorganization and financing of health services, training of health care personnel, new ways of compensating health professionals and new approaches for managing specific major health problems. The health policy principles adopted by the Ministry of Health include accessibility, universality, solidarity in funding health services, incentives for effectiveness and efficiency as well as providing service delivery linked to health care needs. In addition, autonomy of health professionals and cooperation between the health care services and other services that influence health (such as education, social and other services) will be promoted.

The state still owns nearly all the health care system, even though private practice has been allowed since 1990. Romania was one of the last of the reference countries to introduce a health insurance fund (in 1998). Nevertheless, the state budget still finances most services (*WHO Regional Office for Europe, 1996*).

Primary health care

Primary health care is mainly delivered through a network of 5500 dispensaries covering the entire country. Almost 4000 are territorial, providing health care for children under 5 years of age, housewives, pensioners and unemployed people living within a specific area. More than 1500 enterprise-based dispensaries

provide care for the employees of one or more enterprises. School dispensaries provide services for pupils in full-time education. The patients do not choose their dispensary but are allocated according to their residence, school or employment.

Dispensaries are typically staffed by two physicians, two nurses, a midwife and an auxiliary staff member. All dispensaries have consulting rooms for the physicians and dentists, and some have laboratories, X-ray facilities and pharmacies.

In principle, patients require a referral from a general practitioner to consult a specialist, but since 1989 the referral system has increasingly been bypassed and the frequency of primary health care consultations has declined.

Since 1994 a pilot scheme for primary health care has been introduced in certain regions of Romania. This scheme has shifted responsibility for funding and managing primary health care from territorial hospitals to district health directorates. The negotiation process and contracts between health care personnel and authorities as well as the salary system have been changed. Patients have the right to choose their general practitioner and to change after 3 months. This reform aims to strengthen the role of general practitioner as the gatekeeper for other health care services. The external departments of hospitals have also been reorganized to improve pre-hospital emergency care. Even though the number of referrals to polyclinics and to hospitals declined significantly, the attendance at emergency departments and hospital admission rates did not change from 1994 to 1996. The patients and physicians have been pleased with this new system, and the use of this system is likely to be emphasized in the future (*WHO Regional Office for Europe, 1996*).

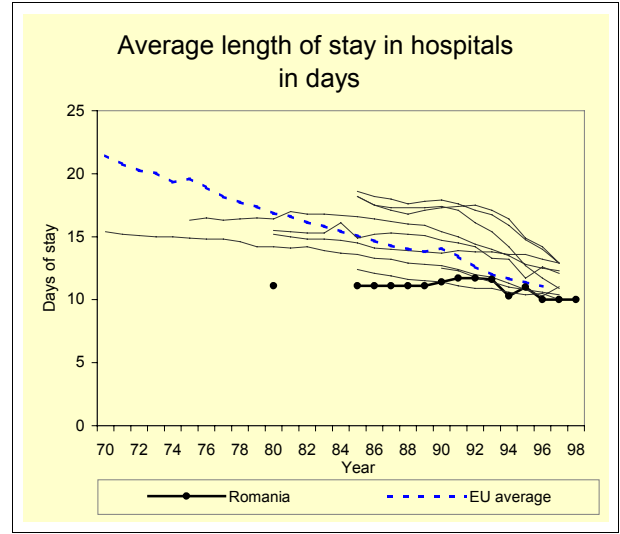
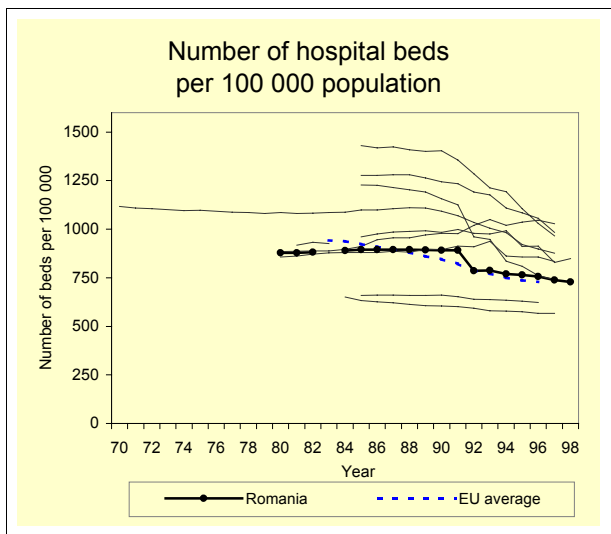
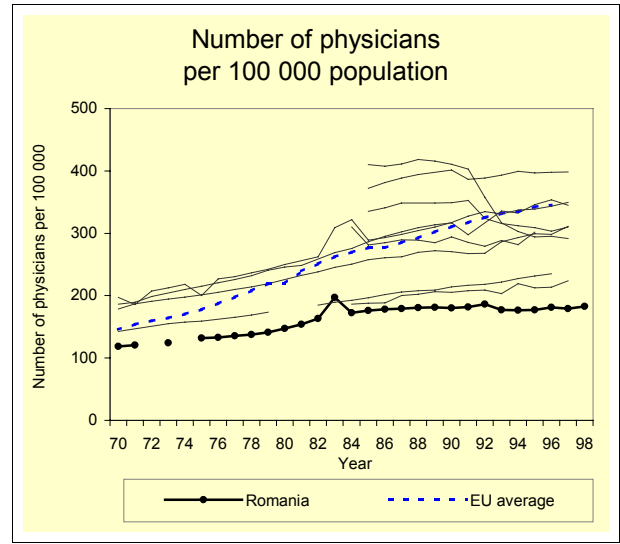
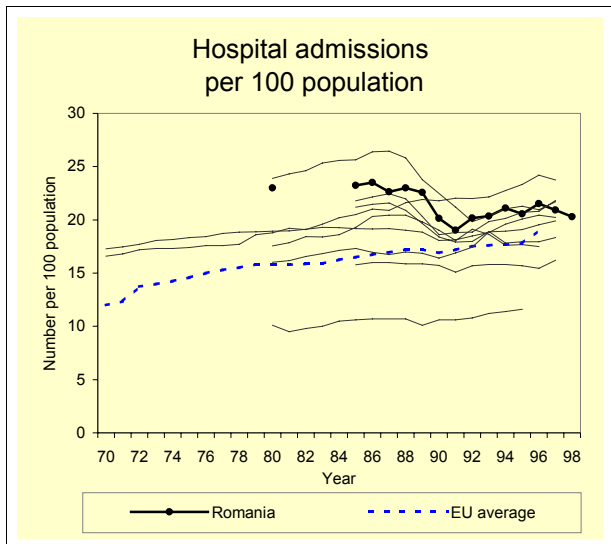
Secondary and tertiary care

Polyclinics and hospitals deliver secondary care. A network of polyclinics and hospital emergency rooms deliver ambulatory secondary health care. Most services are provided free of charge to the user, but out-of-pocket payment is required for a few. Private outpa-

tient services have to be accredited before services, such as medical examinations, treatment and outpatient surgery, can be performed.

The Romanian hospitals are divided into four categories: 1) rural hospitals providing internal medicine and paediatric services (maximum 120 beds), 2) town hospitals (250 beds) and municipal hospitals (450 beds) with departments of internal medicine, surgery, gynaecology & obstetrics and paediatrics, 3) district hospitals (450 to 1000 beds) with additional departments of orthopaedics, intensive care, ophthalmology and otorhinolaryngology and 4) specialized units for tertiary care (such as teaching hospital institutes).

Tertiary care is provided in specialized units and in the surgery departments of teaching hospitals. With two exceptions, all hospitals are public, under state administration and accredited by the Ministry of Health. After the mid-1990s, a hospital reform assessed the existing resources and reallocated them in relation to hospital activities rather than to the number of hospital beds or staff. It is also hoped that a useful fee-for-service method to finance outpatient services can be found (*WHO Regional Office for Europe, 1996*).



Pharmaceuticals and pharmacies

Until 1990, state producers supplied drugs or the state import-export companies imported them. Since 1990, the pharmaceutical system has been reorganized to address pharmaceutical supply problems. Most of the pharmaceutical supply and distribution network is now private. Pharmacists – both state and private – are affiliated with hospitals, which reimburse the pharmacist for issuing free or subsidized drugs.

The pharmaceuticals are financed from the state budget via the district health directorates to hospitals, from the Special Health Fund through district health directorates and from out-of-pocket payments. Employees and their families get 50% and pensioners and unemployed people 80% of the price reimbursed, but only 1200 drugs listed in Romania's list of essential drugs get reimbursed (*WHO Regional Office for Europe, 1996*).

Health care resources

The number of hospital beds per 100 000 population has decreased in almost all reference countries since 1985. The number in Romania decreased by 17% to 738 per 100 000 population in 1997, a slightly smaller decrease than that in the EU (-21%) and nearly identical to the EU number of 728 per 100 000.

The figure for Romania increased by only 4% from 1985 to 1998 and Romania had 183 physicians per 100 000 population in 1998, the lowest among the reference countries and almost half the EU level of 344 in 1996.

In 1998 Romania had 23.8 dentists per 100 000 population, the second lowest figure among the reference countries and much lower than the proportions for the reference countries (44.6 per 100 000 in 1998) and the EU (67.7 per 100 000 in 1996).

There were 7.3 pharmacists per 100 000 population in Romania in 1998. This was fewer than any other reference country and substantially lower than the averages for the reference countries (37.8 per 100 000 in 1998) and the EU (77.6 per 100 000 in 1996).

The number of nurses in Romania – 408 per 100 000 population in 1998 – was the second lowest among the reference countries and 23% lower than the level for the reference countries (566 per 100 000 in 1998). The number of midwives was higher in all reference countries (49.6 per 100 000 in 1998) than in the EU (29.6 per 100 000 in 1996). The figure for Romania (39.5 per 100 000 in 1998) was more than 20% lower than the rate for the reference countries.

Health care utilization

The reported number of outpatient health care contacts varies substantially among the reference countries, ranging from 4.6 annual contacts per person (Latvia) to 15.1 (Czech Republic). From 1988 to 1998, the figure for Romania decreased by 25% to 7.5 contacts, which was slightly lower than the average for the reference countries (8.1 contacts in 1998).

The numbers of inpatient admissions vary considerably among the reference countries: from 11.6 admissions per 100 population (Poland) to 24.2 (Lithuania). Even though the number of inpatient admissions in Romania declined by 13% from 1985 to 1998 – one of the largest decreases among the reference countries – the

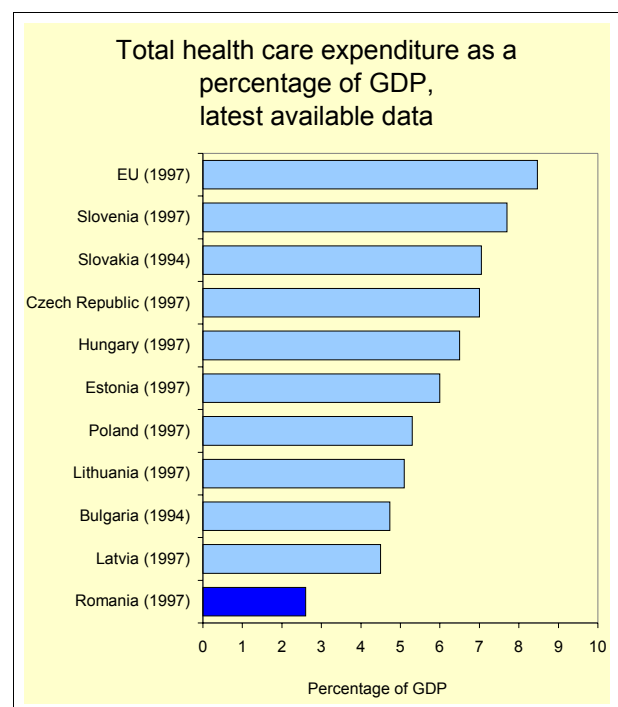


figure for Romania (20.3 per 100) was still above the averages for the reference countries (17.1 per 100 in 1998) and the EU (19.0 per 100 in 1996).

The average length of hospital stay has decreased in all the reference countries since the 1980s. In 1985 the average length of stay in the reference countries was 13.4 days versus 15.1 in the EU. In 1997, Romania had one of the shortest average length of hospital stay (10.0 days), shorter than the figures for the reference countries (10.6 days in 1998) and for the EU (11.1 days in 1996).

Health care expenditure

International comparisons of health care expenditure are extremely difficult because the definitions underlying health statistics as well as accounting practices vary from one country

to another. The following data on health care expenditure should therefore be used with caution, as the boundaries of what constitutes health care can vary substantially between countries.

According to data from 1997 (1994 for Slovakia and Bulgaria), health care expenditure as a percentage of GDP was below the EU average of 8.5% in all reference countries. Slovenia (7.3%), Slovakia and the Czech Republic (both 7.0%) had the highest proportions, whereas Romania (2.6%), Latvia (4.5%) and Bulgaria (4.7%) reported the lowest proportions. The national data suggest that the percentage has been declining in Romania in the 1990s: in 1991 the share was estimated to be 3.7% for public expenditure and 4.5% for both public and private expenditure (*Ministry of Health, 1997a*).

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GLOSSARY

Incidence rate: the number of new cases of a disease occurring in a population per 100 000 people during a specified period (usually 1 year).

Infant mortality rate: the yearly number of deaths of children aged less than 1 year per 1000 live births.

Life expectancy at birth: an estimate of the average number of years a newborn child can expect to live provided that the prevailing age-specific patterns of mortality at the time of birth were to stay the same throughout the child's life.

Prevalence rate: the total number of people in a population who have a disease or any other attribute at a given time or during a specified period per 100 000 of that population.

Purchasing power parity (PPP): a standardized measure of the purchasing power of a country's currency, based on a comparison of the number of units of that currency required to purchase the same representative basket of goods and services in a reference country and its currency (usually US dollars). The EU uses the purchasing power standard to measure this.

Standardized death rate (SDR): a death rate (usually per 100 000 population) adjusted to the age structure of a standard European population.

Total fertility rate: the average number of children that would be born alive per woman during her lifetime if she were to bear children at each age in accordance with prevailing age-specific birth rates.

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