



# Highlights on health in Serbia and Montenegro 2005

*Highlights on health* give an overview of a country's health status, describing recent data on mortality, morbidity and exposure to key risk factors along with trends over time. The reports link country findings to public health policy considerations developed by the WHO Regional Office for Europe and by other relevant agencies. *Highlights on health* are developed in collaboration with Member States and do not constitute a formal statistical publication.

Each report also compares a country, when possible, to a reference group. This report uses the 25 countries with low child mortality and low or high adult mortality, designated Eur-B+C by WHO, as the reference group. Eur-B+C comprises Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Poland, Republic of Moldova, Romania, Russian Federation, Serbia and Montenegro, Slovakia, Tajikistan, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

To make the comparisons as valid as possible, data, as a rule, are taken from one source to ensure that they have been harmonized in a reasonably consistent way. Unless otherwise noted, the source of data in the reports is the European health for all database of the WHO Regional Office for Europe. Other data and information are referenced accordingly.

## Keywords

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## Summary: findings and policy considerations

### Life expectancy

WHO estimates that a person born in Serbia and Montenegro in 2002 can expect to live 73 years on average: 75 years if female and 70 years if male. Life expectancy in Serbia and Montenegro is higher than in Eur-B+C on average: by two years for females and five years for males. However, for females and males, respectively, it is seven and six years below the average in the very low mortality countries of the Eur-A reference group. As in Eur-B+C countries on average, there has been little or no improvement in life expectancy in Serbia and Montenegro over the last few years – in 2002, life expectancy for males was the same as in 1995 and for females it was about five months longer. WHO estimates that about 12% (nine years) of the average life span in Serbia and Montenegro is spent with illness and disability.

As the length of life increases, older people can respond with lifestyle changes that can increase healthy years of life. Correspondingly, health care systems need to shift towards more geriatric care, the prevention and management of chronic diseases and more formal long-term care. Since people are living longer, measures to improve health and prevent disease need to focus on people of working age.

*Ageing and employment policies* (OECD, 2004)

*What are the main risk factors for disability in old age and how can disability be prevented?* (Health Evidence Network, 2003a)

### Infant mortality

Infant and post neonatal mortality rates in Serbia and Montenegro are about half the corresponding Eur-B+C average rates but are about twice as high as the corresponding Eur-A average rates. Neonatal mortality however, is at the average for Eur-B+C.

Antenatal care is one of the most important services in health care. Nevertheless, it can be expensive, and interventions may be excessive, unneeded and unproven. A simplified model of antenatal care, based on evidence of benefit, is available.

*Managing newborn problems: a guide for doctors, nurses and midwives* (WHO, 2003a)

*The WHO reproductive health library, version 6* (WHO, 2003b)

*What is the efficacy/effectiveness of antenatal care?* (Health Evidence Network, 2003b)

*What is the effectiveness of antenatal care? (Supplement)* (Health Evidence Network, 2005)

### Maternal mortality

Between 1991 and 2001, the maternal mortality rate in Serbia and Montenegro fell by almost 34%, this despite an increase between 1991 and 1994. From 1994 to 2001, the maternal mortality rate fell by 45% to a rate among the lowest in the Eur-B+C. If Serbia and Montenegro were to reach its Millennium Development Goal target, its maternal mortality rate would be well below the current Eur-A average rate. However, the rate may be underestimated since, according to a WHO/United Nations Children's Fund/United Nations Population Fund estimate for the year 2000, the maternal mortality rate in Serbia and Montenegro was 11 deaths per 100 000 live births while the nationally reported rate was 6 deaths per 100 000 live births.

More important than reaching the exact Millennium Development Goal for maternal mortality rates is that countries take concrete action to provide women with access to adequate care during pregnancy and childbirth. There are evidence-based initiatives proven to bring down the rates.

*The WHO reproductive health library, version 6* (WHO, 2003b)

### Main causes of death

In general, the total mortality rate for males places Serbia and Montenegro in the middle of European countries, about 30% below the Eur-B+C average rate and more than 50% above the Eur-A average rate

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in 2002. This excess mortality in comparison to Eur-A has been increasing since 1994. For both sexes, the largest excess mortality is in the youngest population, below 15 years of age, with children in Serbia and Montenegro having a risk of dying more than twice as high as the average for their Eur-A counterparts.

In 2002, the main noncommunicable diseases accounted for about 79% of all deaths in Serbia and Montenegro; external causes for about 4%; and communicable diseases for less than 1%. In total, 54% of all deaths were caused by diseases of the circulatory system and 17% by cancer. The latter percentages are similar to those of Eur-B+C on average; however, these percentages are quite different from those of Eur-A on average – 38% and 28%, respectively.

Preventive care, delivered through a country's primary care system, can reduce all-cause mortality and premature mortality, particularly from CVD.

*A strategy to prevent chronic disease in Europe: a focus on public health action: the CINDI vision* (WHO Regional Office for Europe, 2004a)

*Towards a European strategy on noncommunicable diseases* (WHO Regional Office for Europe, 2004b)

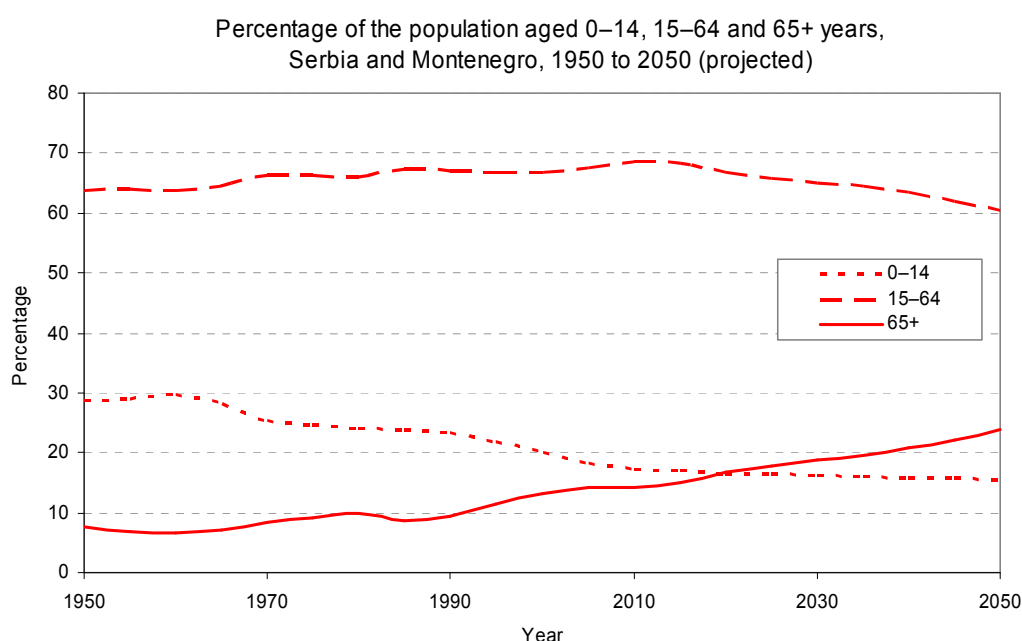
*What are the advantages and disadvantages of restructuring a health care system to be more focused on primary health care services?* (Health Evidence Network, 2004)

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## Selected demographic and socioeconomic information

### Population profile

In mid-2003, Serbia and Montenegro had about 10.5 million people, of which about 52% of them lived in urban areas, which is below the Eur-B+C average rate. The percentage of the population 0–14 years old was relatively steady during the 1980s, but fell from about 23% in 1990 to 16% of the population by 2002. The percentage is below the Eur-B+C average. At the other end of the population scale, the percentage of Serbia and Montenegro's population over 65 years old is above the Eur-B+C average. By 2030, an estimated 19% of Serbia and Montenegro's population will be 65 years old and older (Annex. Age pyramid).



The birth rate in Serbia and Montenegro was below the Eur-B+C average rate in 2002. Also, natural population growth was negative, and net migration was zero that year in Serbia and Montenegro; both of these indicators were below the corresponding Eur-B+C averages.

Selected demographic indicators in Serbia and Montenegro and Eur-B+C,  
2002 or latest available year

Indicators	Serbia and Montenegro	Eur-B+C		
	Value	Average	Minimum	Maximum
Population (in 1000s) <sup>a</sup>	10527.0	–	–	–
0–14 years (%)	15.9	–	–	–
15–64 years (%)	67.4	–	–	–
65+ years (%)	16.7	–	–	–
Urban population (%) <sup>b</sup>	51.7	63.7	25.0	73.3
Live births (per 1000)	10.7	12.8	8.6	27.1
Natural population growth (per 1000)	–2.7	0.8	–7.5	23.0
Net migration (per 1000) <sup>b</sup>	0.0	1.8	–6.6	2.1

<sup>a</sup> 2003; <sup>b</sup> 2000.

Sources: Council of Europe (2005), WHO Regional Office for Europe (2005).

## **Socioeconomic indicators**

Health outcomes are influenced by various factors that operate at individual, household and community levels. Obvious factors are, for example, diet, health behaviour, access to clean water, sanitation and health services. However, underlying health determinants of a socioeconomic nature also play a role in causing vulnerability to health risks. Here, the key factors are income, education and employment. Though moderately correlated and interdependent, each of these three determinants captures distinctive aspects of the socioeconomic background of a population and they are not interchangeable. Various indicators represent the key socioeconomic determinants of health.

### ***Education***

Education tends to enhance an individual's job opportunities. In so doing, it can improve income, which in turn affects health positively. Education can also give more access to knowledge about healthy behaviour and increase the tendency to seek treatment when needed. A lower level of education – independent of individual income – is correlated with the inability to cope with stress, with depression and hostility and with adverse effects on health.

School enrolment is an indicator of access to education. The secondary school net enrolment represents the percentage of the total population of official school age (defined nationally) that is enrolled in secondary schools.

Data on school net enrolment are not available for Serbia and Montenegro. The percentage for gross secondary school enrolment in the country (the ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to secondary education) was 88.7% in 2000. That year, in neighbouring countries, the rates for gross secondary school enrolment were 82.3% in Romania, 92.5% in Bulgaria and 84.5% in The former Yugoslav Republic of Macedonia (UNESCO, 2005).

### ***Employment***

Being employed tends to be better for health than being unemployed, except in circumstances where employment exposes the individual to physical injury or psychological stress. National unemployment rates and rates for particular sub-populations are monitored to assess the extent to which people have or lack access to opportunities that would enable them to earn an income and feel secure. Vulnerability to health risk is increased by long-term unemployment, that is, continuous periods without work, usually for a year or longer; the socioeconomic status of an individual and of his/her dependents can slide as the period of unemployment increases.

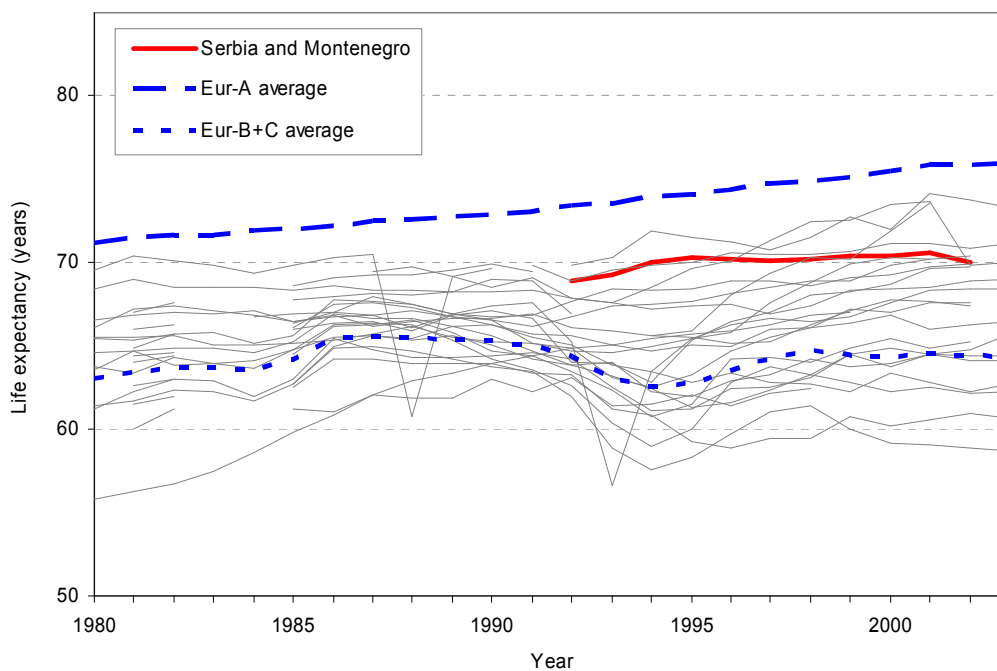
In 2001, the total unemployment rate in Serbia and Montenegro was 22.3%, compared with the Eur-B+C average of 12.9%, keeping in mind that national rates are based on estimates of people available and seeking employment and that countries have different definitions of labour force and unemployment (ILO, 2005).

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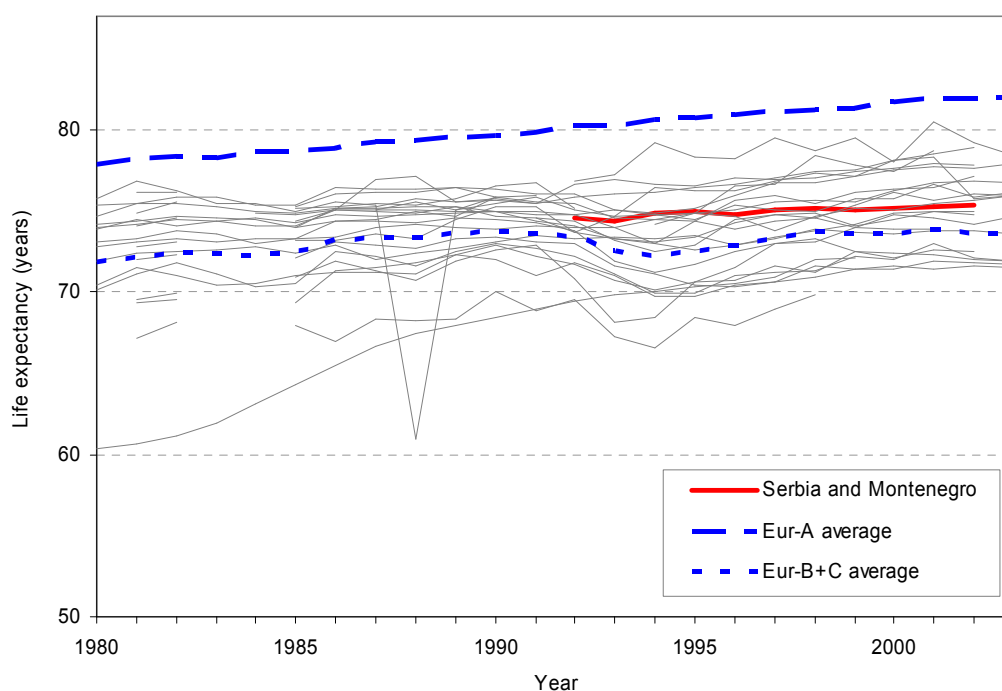
## Life expectancy (LE) and healthy life expectancy (HALE)

According to WHO (WHO, 2004) estimates, based on reported mortality data, a person born in Serbia and Montenegro in 2002 can expect to live 72.7 years on average: 75.4 years if female and 70.0 years if male. Life expectancy (LE) in Serbia and Montenegro is higher than the Eur-B+C average: by 1.9 years for females and 5.2 years for males; however, it is below the average for the very low mortality countries of Eur-A: by 6.5 years for females and 5.9 years for males.

Life expectancy at birth for males, Serbia and Montenegro, Eur-A and Eur-B+C averages, 1980 to latest available year



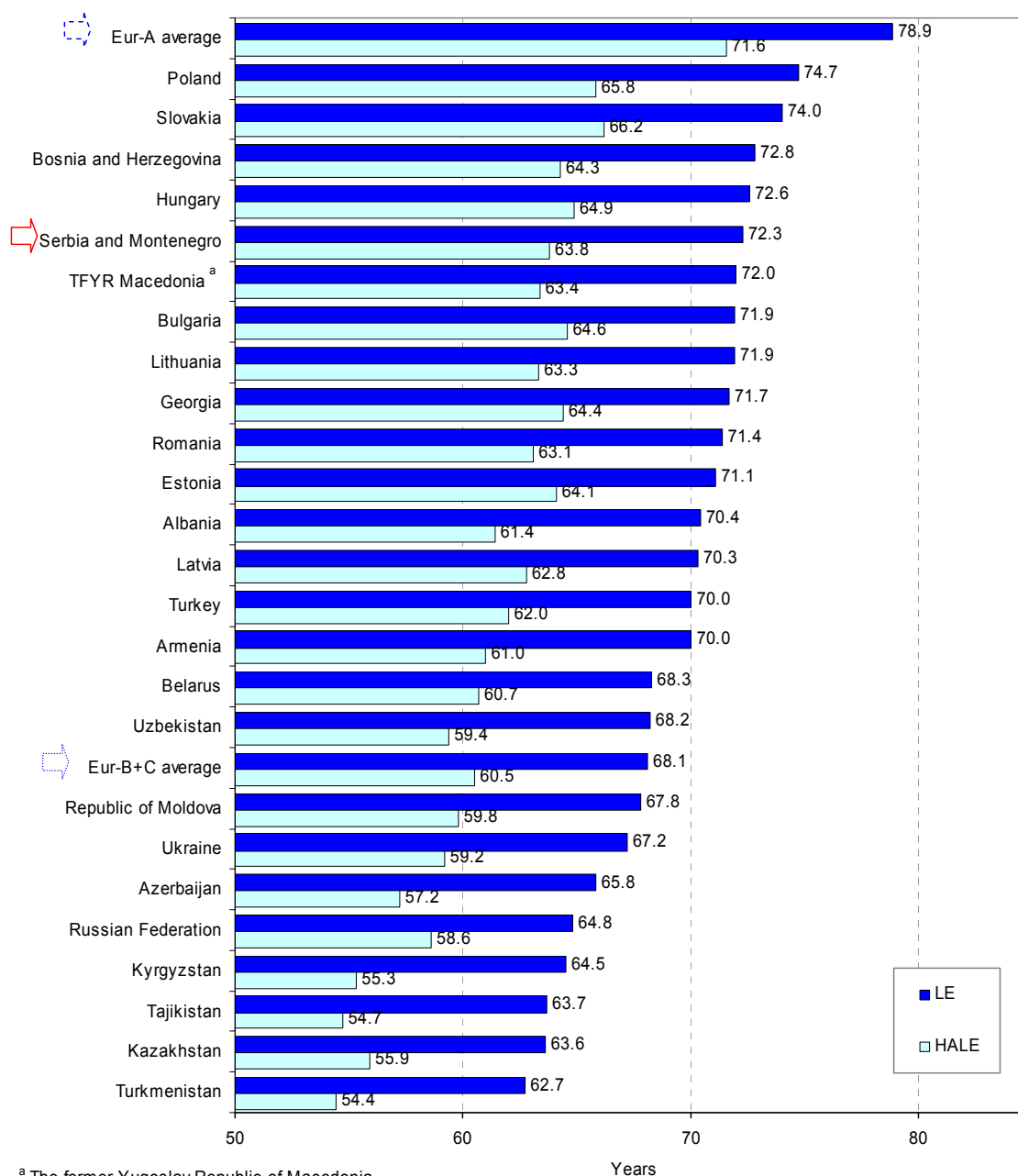
Life expectancy at birth for females, Serbia and Montenegro, Eur-A and Eur-B+C averages, 1980 to latest available year



There has been almost no improvement in LE in Serbia and Montenegro over the last few years. In 2002, LE for males was the same as in 1995, and for females it was only 0.4 year longer. Between 1995 and 2002, males in Eur-A countries gained 1.8 years of life on average and females gained 1.2 years. However, Eur-B+C average LE also shows no improvement since 1998.

In addition to LE, it is increasingly important to know the expected length of life spent in good health. WHO uses a relatively new indicator for this purpose – healthy life expectancy (HALE), subtracting estimated years of life spent with illness and disability from estimated LE. For Serbia and Montenegro, WHO (WHO, 2003c) estimates that people can expect to be healthy for about 88% of their lives. They lose an average of 8.5 years to illness and accidents – the difference between LE and HALE. This loss is greater than the Eur-A average (7.3 years) and the Eur-B+C average (7.6 years).

LE and HALE, Serbia and Montenegro, Eur-A and Eur-B+C averages, 2002



Since females live longer than males and since the possibility of deteriorating health increases with age, females lose more healthy years of life (10.0 years) than males (7.0 years). Nevertheless, the longer

LE for females in Serbia and Montenegro gives them somewhat over five more years of healthy life than males. At age 60 years, this difference reduces to 1.8 years: women can expect 13.9 years of healthy life and men can expect 12.1 years.

## Burden of disease

The burden of disease in a population can be viewed as the gap between current health status and an ideal situation in which everyone lives into old age, free of disease and disability. Causing the gap are premature mortality, disability and certain risk factors that contribute to illness. The analysis that follows elaborates on the burden of disease in the population. The disability-adjusted life-year (DALY) is a summary measure that combines the impact of illness, disability and mortality on population health.

### Main conditions

The following table shows the top 10 conditions (disability groups), in descending order, that account for approximately 90% of the burden of disease among males and females in Serbia and Montenegro. Cardiovascular diseases (CVD) and neuropsychiatric conditions account for the highest burden of disease, both among males and females. Because mortality from neuropsychiatric conditions is minor, disability in daily living comprises the bulk of their burden on the population's health.

Ten leading disability groups as percentages of total DALYs for both sexes in Serbia and Montenegro (2002)

Rank	Males		Females	
	Disability groups	Total DALYs (%)	Disability groups	Total DALYs (%)
1	Cardiovascular diseases	29.2	Cardiovascular diseases	29.6
2	Neuropsychiatric conditions	19.4	Neuropsychiatric conditions	20.6
3	Malignant neoplasms	13.2	Malignant neoplasms	12.2
4	Unintentional injuries	6.7	Sense organ diseases	6.0
5	Sense organ diseases	4.2	Musculoskeletal diseases	5.9
6	Respiratory diseases	3.9	Genitourinary diseases	4.7
7	Digestive diseases	3.7	Respiratory diseases	3.3
8	Musculoskeletal diseases	3.5	Digestive diseases	2.8
9	Intentional injuries	3.2	Unintentional injuries	2.4
10	Genitourinary diseases	3.0	Diabetes mellitus	2.4

Source: Background data from WHO (2003c).

### Main risk factors

The following table shows the top 10 risk factors with their relative contributions (percentage of total DALYs), in descending order, to the burden of disease in the male and female populations of Serbia and Montenegro. According to the DALYs, tobacco and high blood pressure place the greatest burden of disease on the Serbia and Montenegro male population, and high blood pressure and high body mass index (BMI) place the greatest burden of disease on females.

Ten leading risk factors as causes of disease burden measured in DALYs in Serbia and Montenegro (2002)

Rank	Males		Females	
	Risk factors	Total DALYs (%)	Risk factors	Total DALYs (%)
1	Tobacco	21.3	High blood pressure	17.4
2	High blood pressure	16.4	High BMI	9.8
3	Alcohol	11.7	Tobacco	8.4
4	High BMI	7.6	High cholesterol	6.1
5	High cholesterol	7.5	Physical inactivity	3.5
6	Low fruit and vegetable intake	4.1	Low fruit and vegetable intake	3.1
7	Physical inactivity	3.7	Unsafe sex	2.3
8	Illicit drugs	1.7	Alcohol	2.0
9	Lead	1.4	Lead	1.0
10	Urban outdoor air pollution	1.0	Childhood sexual abuse	0.9

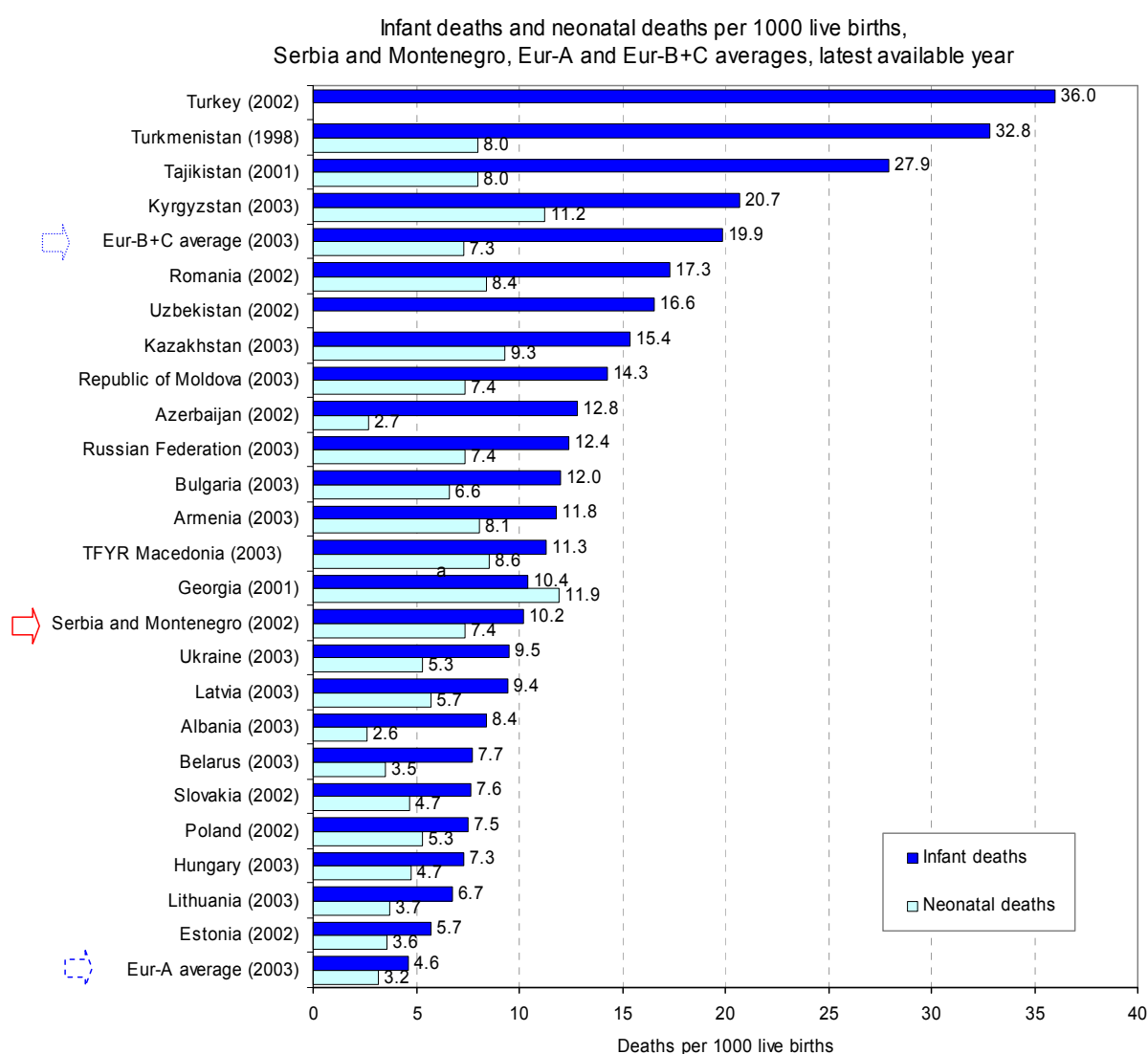
Source: Background data from WHO (2003c).

## Mortality

### Infant, neonatal and child mortality

Infant mortality and post neonatal mortality rates in Serbia and Montenegro are about half of the corresponding Eur-B+C average rates but are about twice as high as the corresponding Eur-A average rates. The neonatal mortality rate, however, is at the Eur-B+C average rate.

National data and WHO estimates for 2002 show that of every 1000 live births in Serbia and Montenegro, there is a probability that about 12 children will die before age of 5 years. The lowest WHO estimates for the Eur-B+C countries are for Estonia and Slovakia, each at 8 deaths per 1000 live births. The Millennium Development Goal (MDG) for the under-5 mortality rate for Europe and central Asia is 15 deaths per 1000 live births by 2015 (World Bank, 2004). Adjusting slightly for underreporting of vital statistics, the United Nations Children's Fund (UNICEF) estimates the number of deaths under-5 for Serbia and Montenegro to be 14 deaths per 1000 live births (UNICEF, 2005), which is already on the MDG target for 2015.



## Maternal mortality

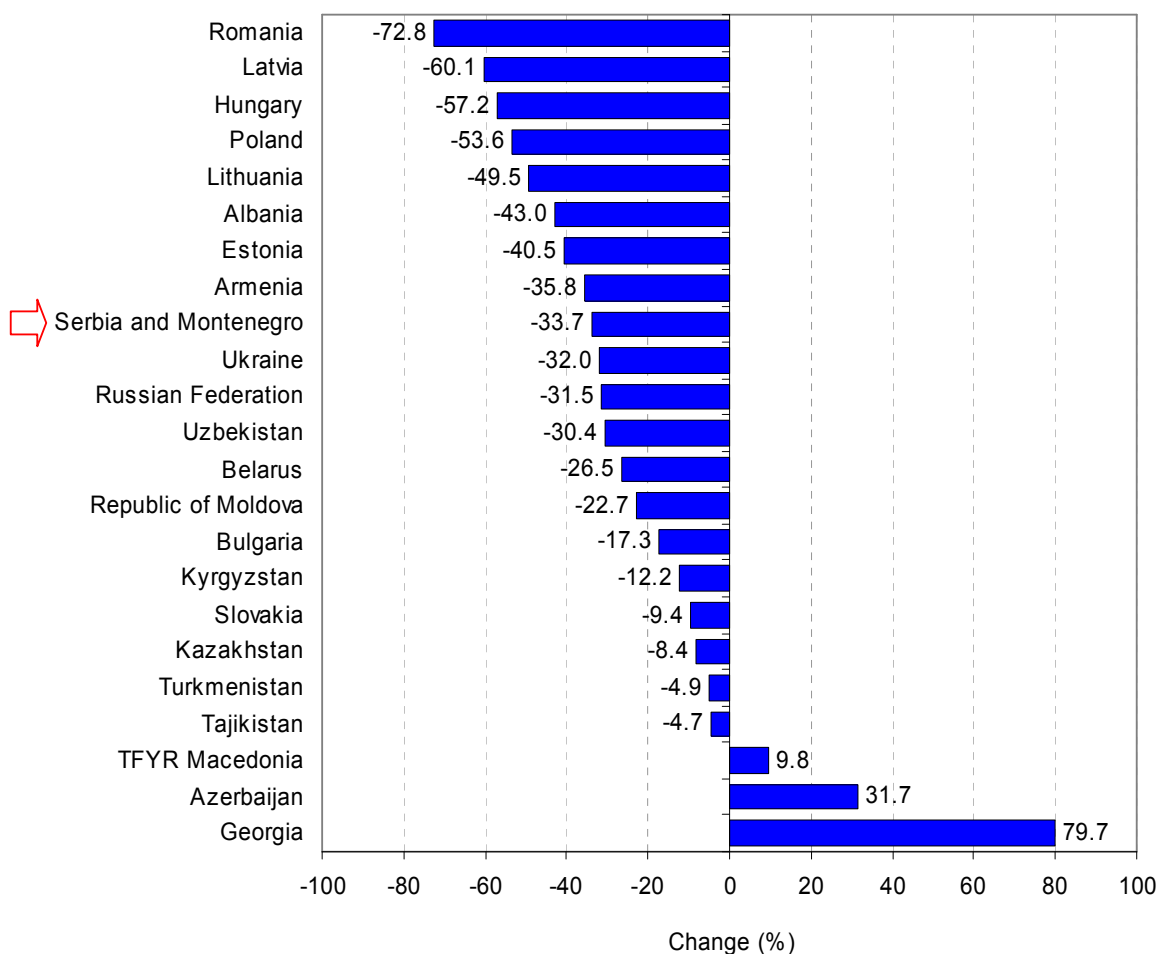
### **Maternal mortality rates (MMR) and the Millennium Development Goal (MDG)**

Despite the difficulties in accurately measuring MMR, nationally reported figures are accepted at face value relative to the MDG to improve maternal health – to reduce the MMR by 75% between 1990 and 2015. In some countries, the 2015 target may be equal to or lower than the average current MMR for high income countries in the European Region (the Eur-A 2001 average of five maternal deaths per 100 000 live births). Countries with 2015 targets lower than the current Eur-A average can be judged as having achieved or being likely to achieve the MDG (World Bank, 2004).

However, in some countries, MMR were higher in 2002 than they had been in 1990. Applying the 75% reduction to the 1990 baseline in these countries creates, in some cases, a 2015 MDG target that requires dramatic reductions in MMR before 2015. In these cases, more important than reaching maternal mortality targets is taking concrete action to provide women with access to adequate care during pregnancy and childbirth, initiatives that have proven to bring down MMR.

Between 1991 and 2001, the MMR (three-year moving average) in Serbia and Montenegro fell by almost 34%, this despite an increase in rates between 1991 and 1994 (peak of about 14 maternal deaths per 100 000 live births). From 1994 to 2001, MMR fell by 45% to a rate among the lowest in the Eur-B+C reference group. If Serbia and Montenegro were to reach its MDG target, its MMR would be well below the current Eur-A average rate.

Per cent change for maternal mortality (3-year moving averages),  
1990 to 2002 or latest available year



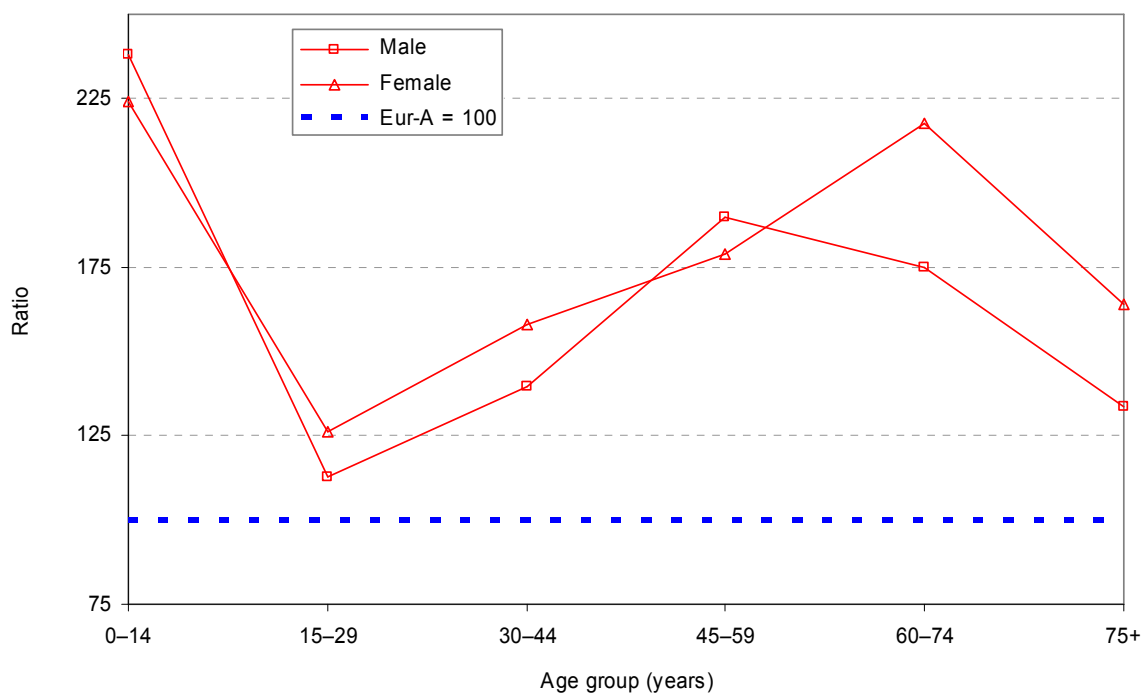
The MMR, which are rather low, show variation over time at a level higher than or equal to the Eur-A average rates. The rates may be underestimated since, according to WHO/UNICEF/United Nations

Population Fund (UNFPA) estimates for the year 2000, the MMR in Serbia and Montenegro was 11 maternal deaths per 100 000 live births (UNICEF, 2005) while the nationally reported rate was 5.6 maternal deaths per 100 000 live births. Of the seven maternal deaths reported in 2000, one was attributed to abortion.

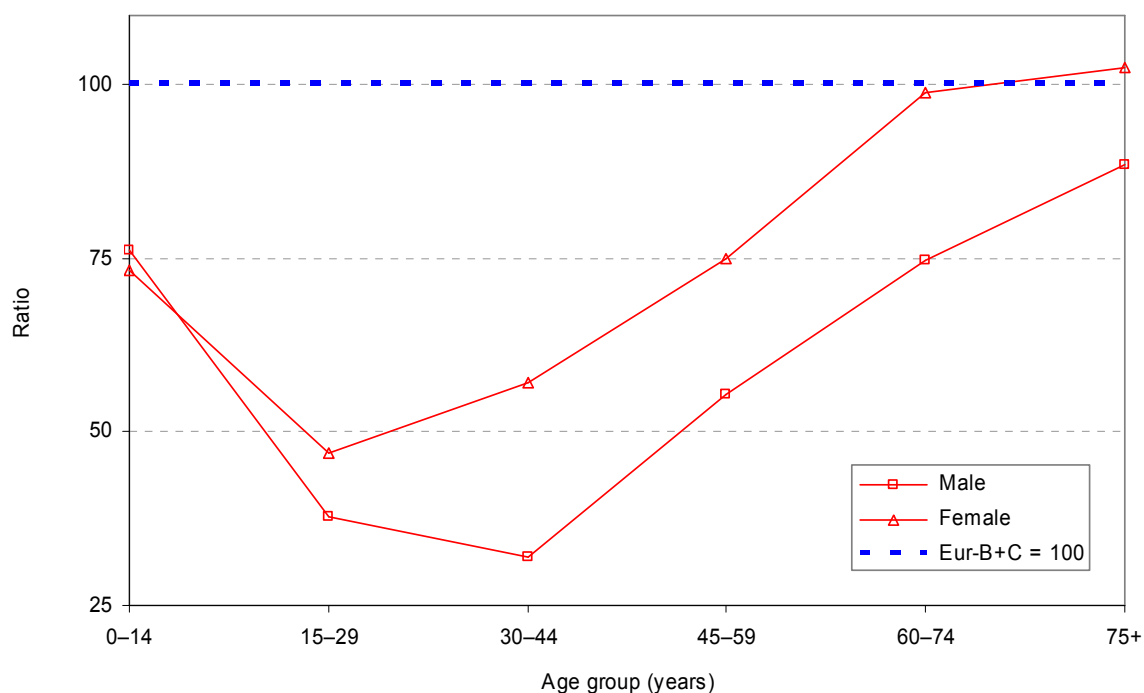
### Excess mortality

In general, the total mortality rate for males in 2002 places Serbia and Montenegro in the middle of European countries, about 30% below the Eur-B+C average total rate and more than 50% above the Eur-A average total rate. This excess mortality in comparison with Eur-A has been increasing since 1994. The total mortality rate for females is in the upper half of the European rates, only about 5% below the Eur-B+C average total rate in the last few years. The excess mortality in Serbia and Montenegro in comparison with the countries of Eur-A is very age dependent, even though it is present across all age groups. For both males and females, the largest difference is in the youngest population, below 15 years of age, with children in Serbia and Montenegro having more than twice as high a risk of dying than their counterparts in Eur-A – this difference, however, is slowly declining. Also, the mortality rate for older women, 60–74 years old, shows a similar excess of deaths in Serbia and Montenegro, and the mortality rate for middle aged men, 45–59 years old, is almost twice as high as the Eur-A average rate and is increasing. When compared with the Eur-B+C average age-specific mortality rates, the picture is different, because for males below 75 years of age and females below 60 years of age the rates in Serbia and Montenegro are lower than the Eur-B+C average rates.

Total mortality by sex and age group in Serbia and Montenegro in comparison with Eur-A (Eur-A = 100), 2003



Total mortality by sex and age group in Serbia and Montenegro  
in comparison with Eur-B+C (Eur-B+C = 100), 2003

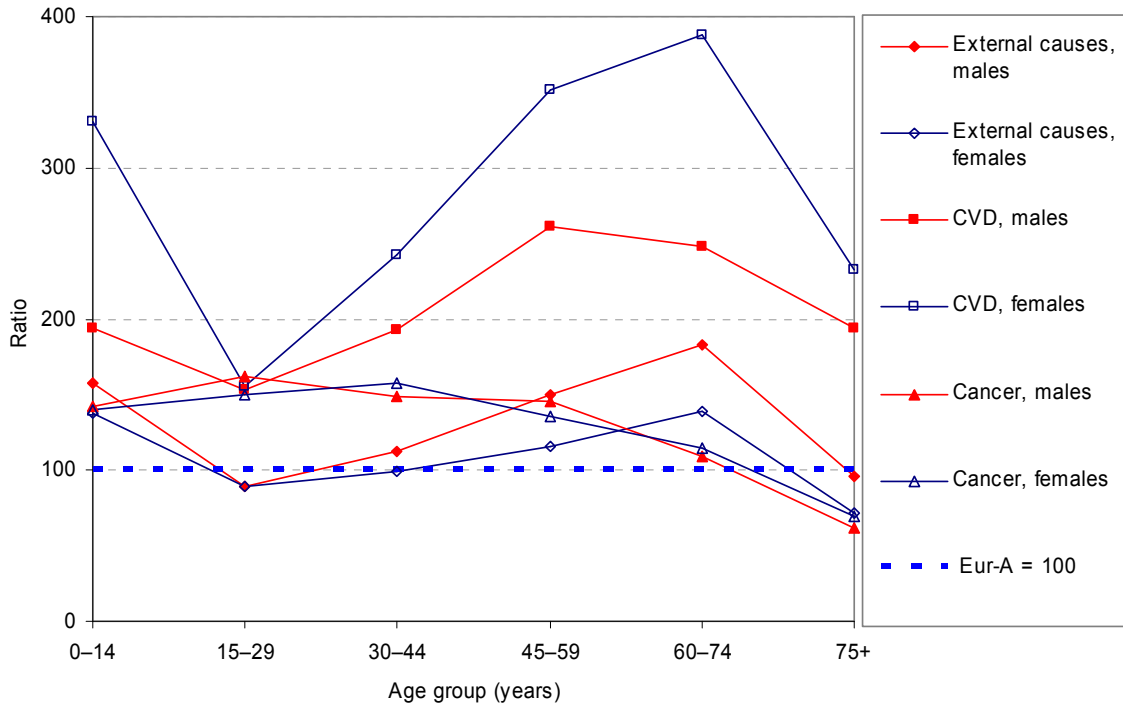


### Main causes of death

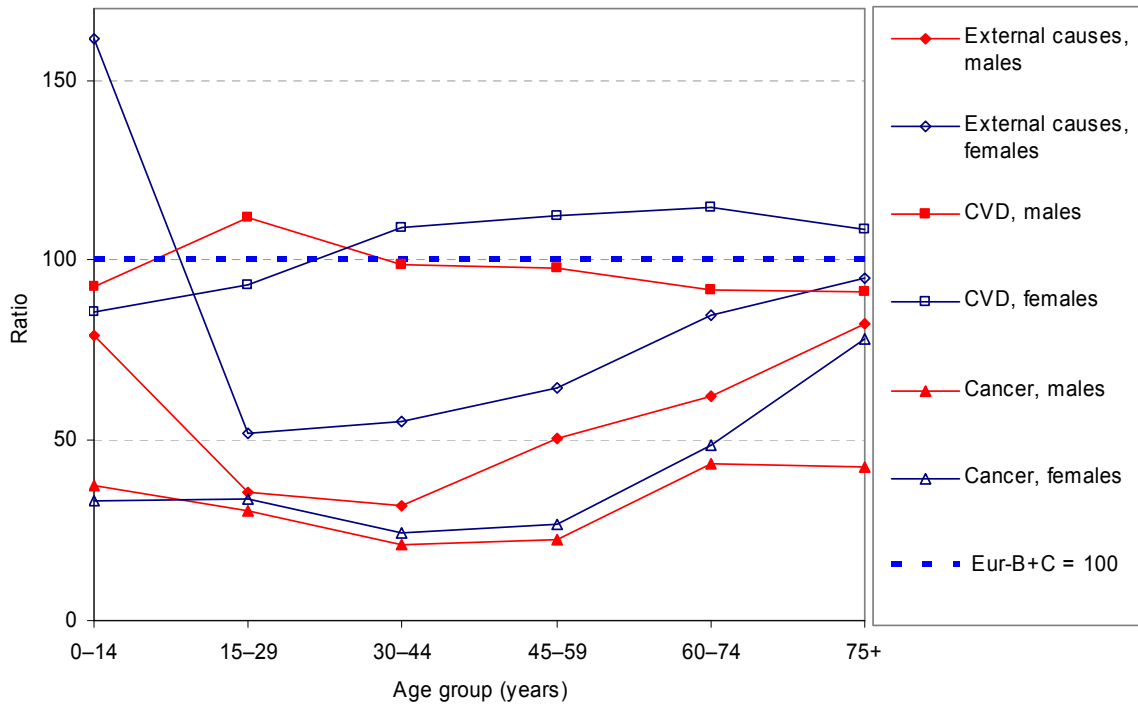
In 2002, the main noncommunicable diseases accounted for about 79% of all deaths in Serbia and Montenegro; external causes for about 4%; and communicable diseases for less than 1%. In total, 54% of all deaths were caused by diseases of the circulatory system and 17% by cancer, and these percentages are similar to those of Eur-B+C on average; however, they are quite different from Eur-A average figures, 38% and 28%, respectively (Annex. Selected mortality; Annex. Mortality data).

The risk of dying from CVD in Serbia and Montenegro is lower (by a fifth) than the average risk for Eur-B+C; however, it is almost 2.5 times higher than the average risk for the Eur-A reference group. On the other hand, the overall risk of dying from cancer is similar to the Eur-A average risk, despite a 40% excess of deaths in the population below 60 years of age. The risk of dying from cancer is somewhat higher than the Eur-B+C average for females, but not for males. Males in Serbia and Montenegro have a higher risk of death from external causes compared with the average risk for males in Eur-A (especially in the age group of 45–74 year olds), while for females the risk is close to the Eur-A average risk. However, both boys and girls below the age of 15 years in Serbia and Montenegro have a higher risk of death from external causes than their counterparts in Eur-A on average. When compared with Eur-B+C averages across all age groups, people in Serbia and Montenegro have a much lower risk of death from external causes.

Main causes of mortality by sex and age group in Serbia and Montenegro in comparison with Eur-A (Eur-A = 100), 2003



Main causes of mortality by sex and age group in Serbia and Montenegro in comparison with Eur-B+C (Eur-B+C = 100), 2003

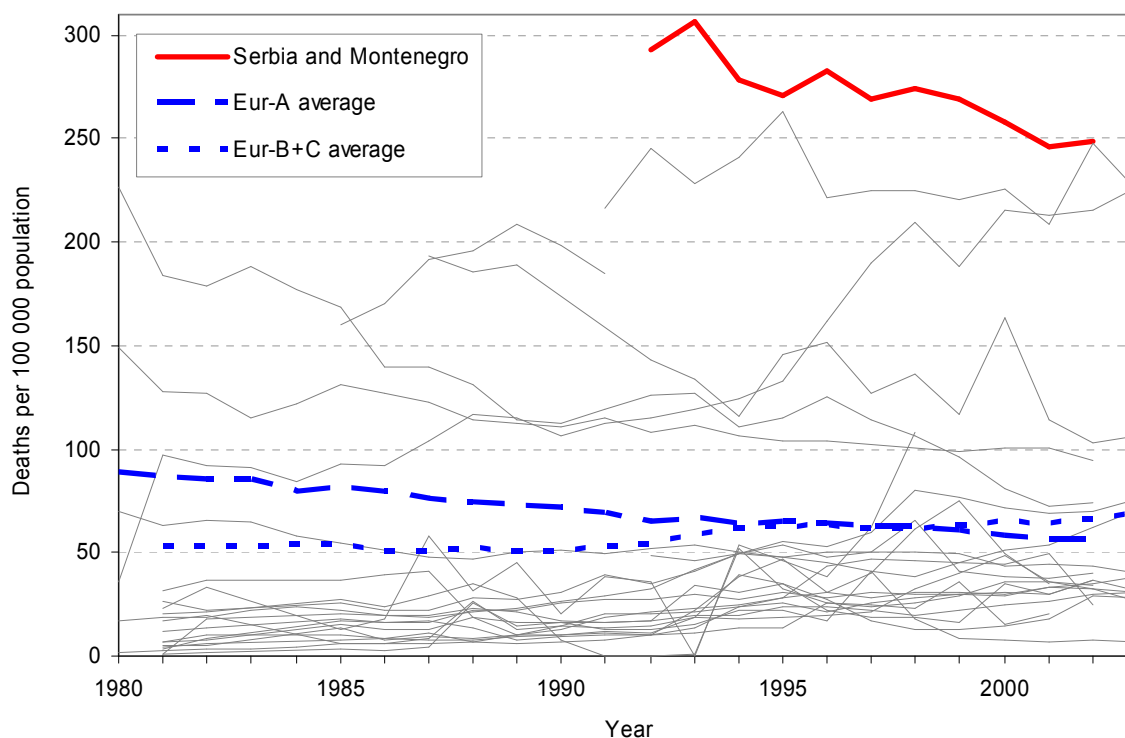


## CVD

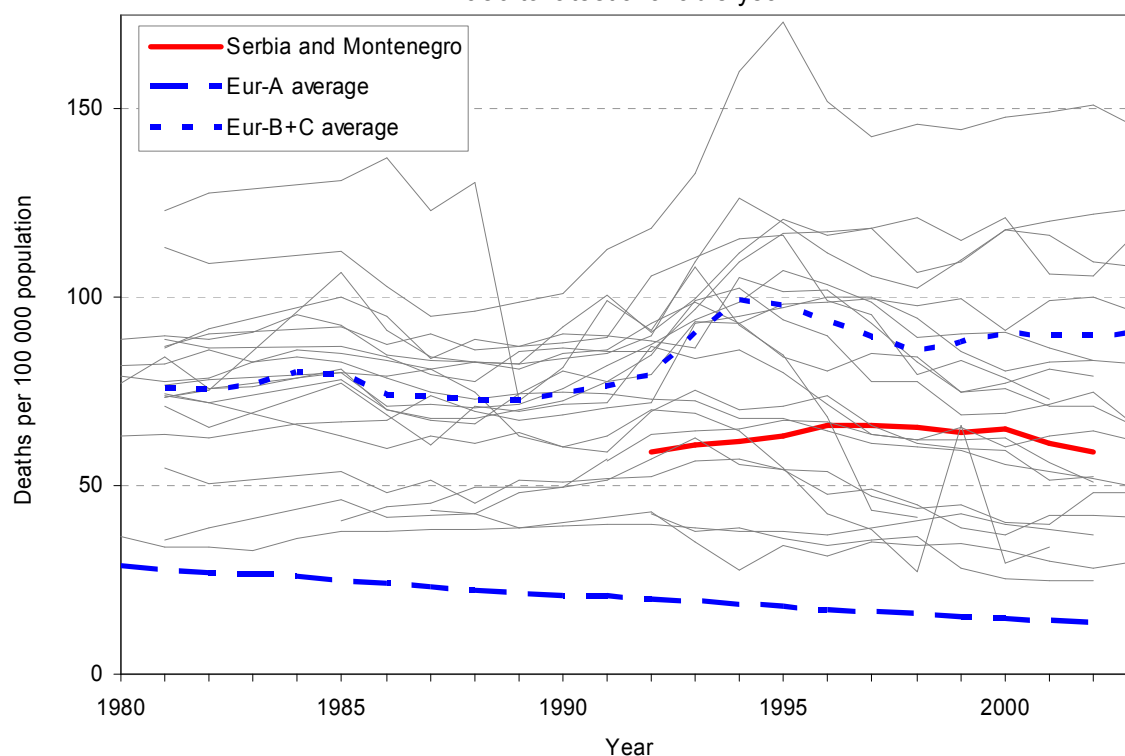
Mortality from CVD for females in Serbia and Montenegro has been declining very slowly since 1993 (5% over nine years), while for males it has declined by 15% between 1993 and 2001; however, it increased in 2002 by 12%. This increase occurred in men 75 years old and older, but not in the younger age groups. The gap in CVD mortality between Serbia and Montenegro and the Eur-A reference group is much larger for females than for males, but the gap for both sexes is not diminishing yet.

In Serbia and Montenegro, unlike in Eur-A, the largest percentage of CVD deaths is attributed to diseases of pulmonary circulation and other heart diseases. For these diseases, Serbia and Montenegro has a four times higher mortality rate than Eur-A on average and a two and half times higher mortality rate than Eur-B+C on average. The total mortality rate and that for females are the highest in European countries, and the mortality rate for males is the second highest. The rates are declining, and the excess mortality is slowly diminishing, with the exception of men 25–64 years old. Compared with the averages in Eur-A, the risk of dying from cerebrovascular diseases in Serbia and Montenegro is almost two times higher, and for ischaemic heart disease it is less than a fourth higher. These last two groups of diseases pose a smaller risk of death in Serbia and Montenegro than the average risk in Eur-B+C.

SDR for ischaemic heart disease and diseases of the pulmonary circulation and other heart diseases in people of all ages, Serbia and Montenegro, Eur-A and Eur-B+C averages, 1980 to latest available year



SDR for cerebrovascular diseases in people aged 25–64 years,  
Serbia and Montenegro, Eur-A and Eur-B+C averages,  
1980 to latest available year

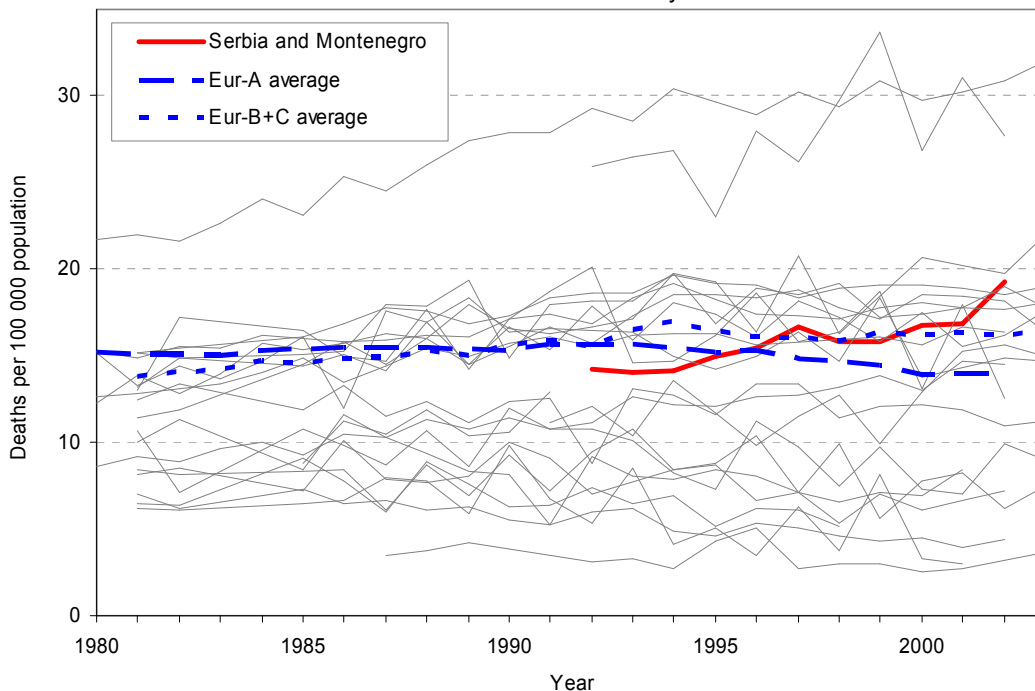


### Cancer

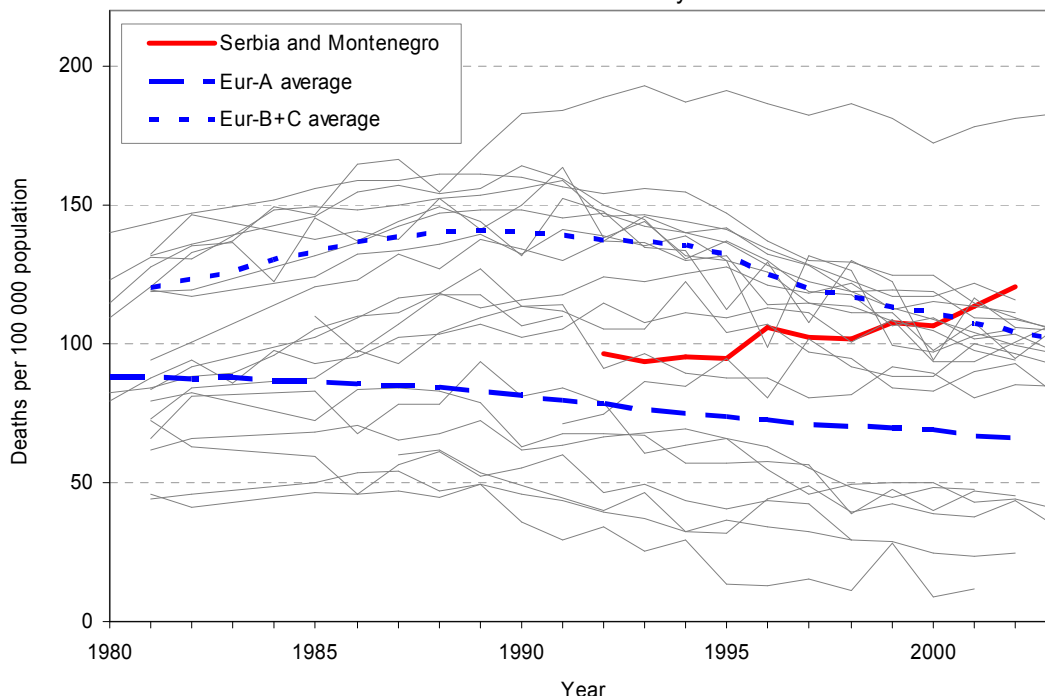
Cancer accounted for 17% of all deaths in Serbia and Montenegro in 2002, which is higher than the average for Eur-B+C countries (13%); however, it is much lower than the Eur-A average (28%). Unlike the average mortality rates for cancer in Eur-A and Eur-B+C, the rates for cancer in Serbia and Montenegro have been increasing since 1994, leading to a higher risk of dying from cancer in the population below 65 years of age. In this age group the excess mortality from cancer for males and females is increasing, when compared with the corresponding age group in Eur-A; it is also increasing for females when compared with the corresponding age group in Eur-B+C. On the other hand, mortality rates in Serbia and Montenegro for men and women 65 years old and older have been below the average values for Eur-A for years.

The largest increase in mortality rates for cancer in Serbia and Montenegro males was for cancer of the colon, rectum and anus: between 1993 and 2002, the rate increased by 43%, while the Eur-A average declined and the Eur-B+C average increased by less than 10%. The rate is now equal to the Eur-A average rate, while in 1993 it was a third lower. Also, mortality for males from cancer of the trachea, bronchus and lung (TBL), unlike the average for Eur-A and Eur-B+C, has been increasing almost continuously since 1994, and the mortality rate in Serbia and Montenegro is now higher than the averages in these two regional reference groups. Most recently, there has been a noticeable increase in mortality rates in males for prostate cancer (26% increase during the period 2001–2002). Interestingly, the mortality rate for stomach cancer is not declining; it is stable above the Eur-A average rate, but is almost 50% below the Eur-B+C average rate.

SDR for colon, rectum and anus cancer in males aged 25–64 years, Serbia and Montenegro, Eur-A and Eur-B+C averages, 1980 to latest available year



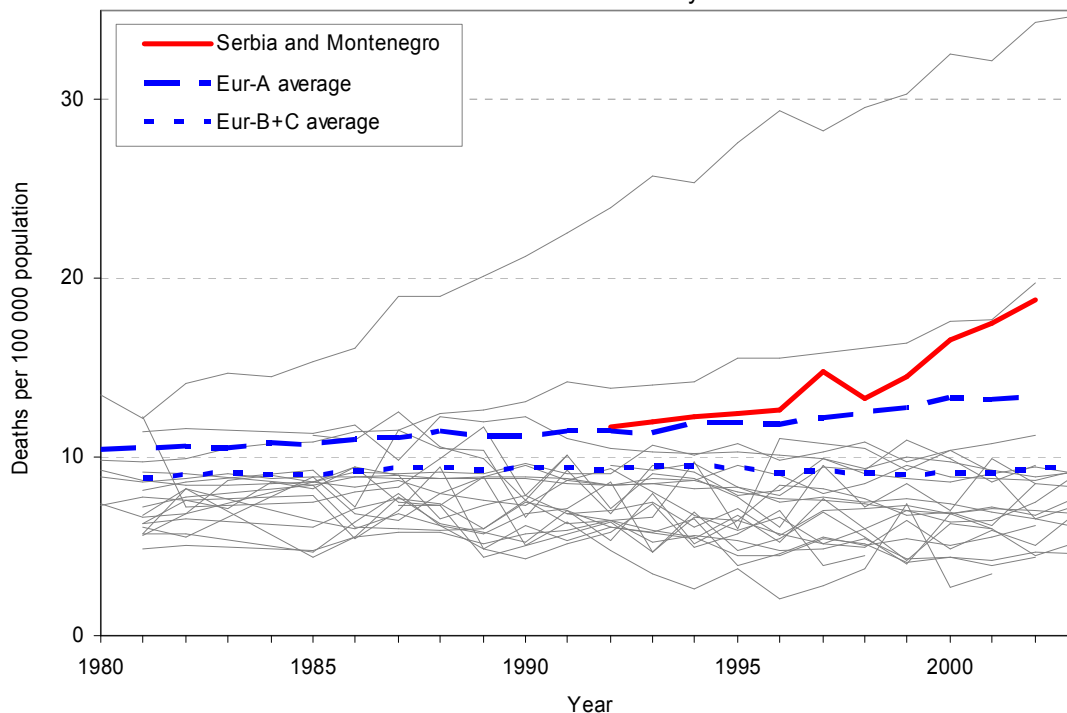
SDR for trachea, bronchus and lung cancer in males aged 45–59 years, Serbia and Montenegro, Eur-A and Eur-B+C averages, 1980 to latest available year



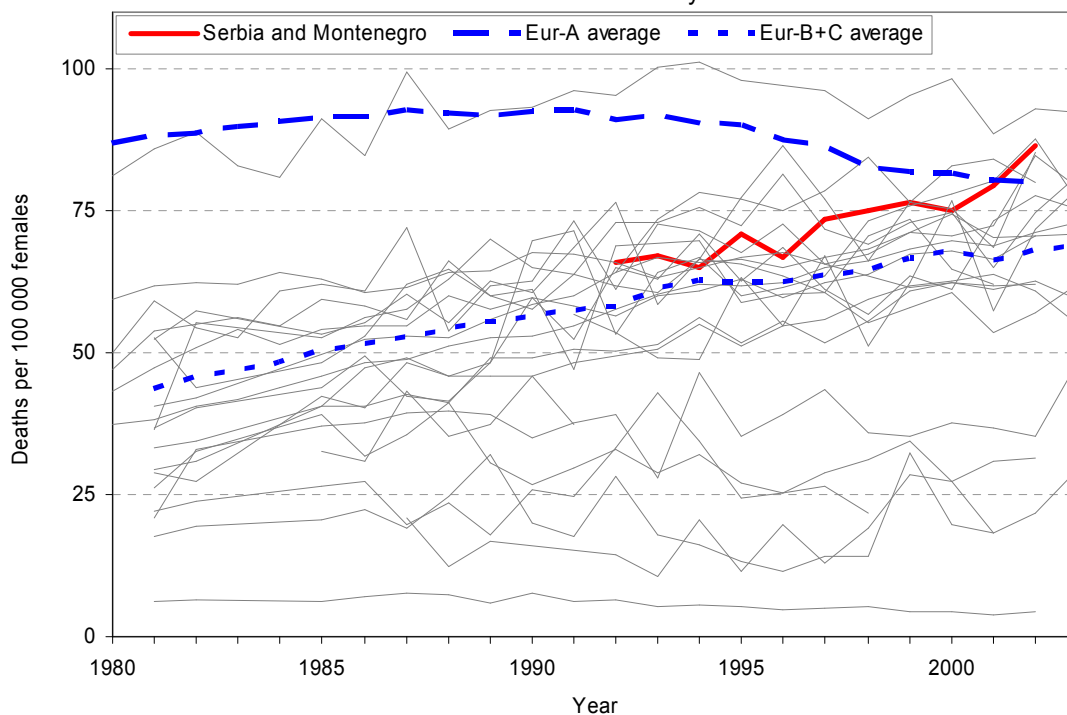
As for female mortality, the mortality rate from breast cancer has been increasing: between 1994 and 2001, it increased by 17%, and only in 2002 did it decline to the Eur-A average rate. This increase is quite steady in women above 60 years of age, while in younger women there was a sign of improvement in 2002. The risk of dying from cancer of the uterine cervix is high in Serbia and Montenegro (the fifth highest in European countries). It is almost four times higher than the Eur-A average rate and 28% above the Eur-B+C average rate and is growing, though not continuously, especially in younger women aged

25–64 years. Also, the mortality rate for cancer of other parts of the uterus was high in Serbian and Montenegro women in 2001 and 2002 (the fifth highest among European countries). The mortality rates for TBL cancer among females is growing rapidly; between 1993 and 2002, mortality rates increased by 51% and are now above the Eur-A average rate (in 1993, they were 20% below).

SDR for trachea, bronchus and lung cancer in females aged 25–64 years, Serbia and Montenegro, Eur-A and Eur-B+C averages, 1980 to latest available year



SDR for breast cancer in females aged 60–74 years, Serbia and Montenegro, Eur-A and Eur-B+C averages, 1980 to latest available year



### Respiratory diseases

In 2002, respiratory diseases accounted for 3.3% of all deaths in Serbia and Montenegro, which is less than average for Eur-B+C and Eur-A. Mortality rates in males are quite stable, show some decline in females and have been below the Eur-A average for years: in 2002, they were about 25% lower for males and 31% lower for females. However, the rates for the population below 65 years of age in Serbia and Montenegro are higher than the Eur-A average rates for this age group. Also, mortality rates for chronic lower respiratory diseases in both sexes are higher than the mortality rates for pneumonia, which is one of the lowest (second and third for males and females, respectively) in European countries.

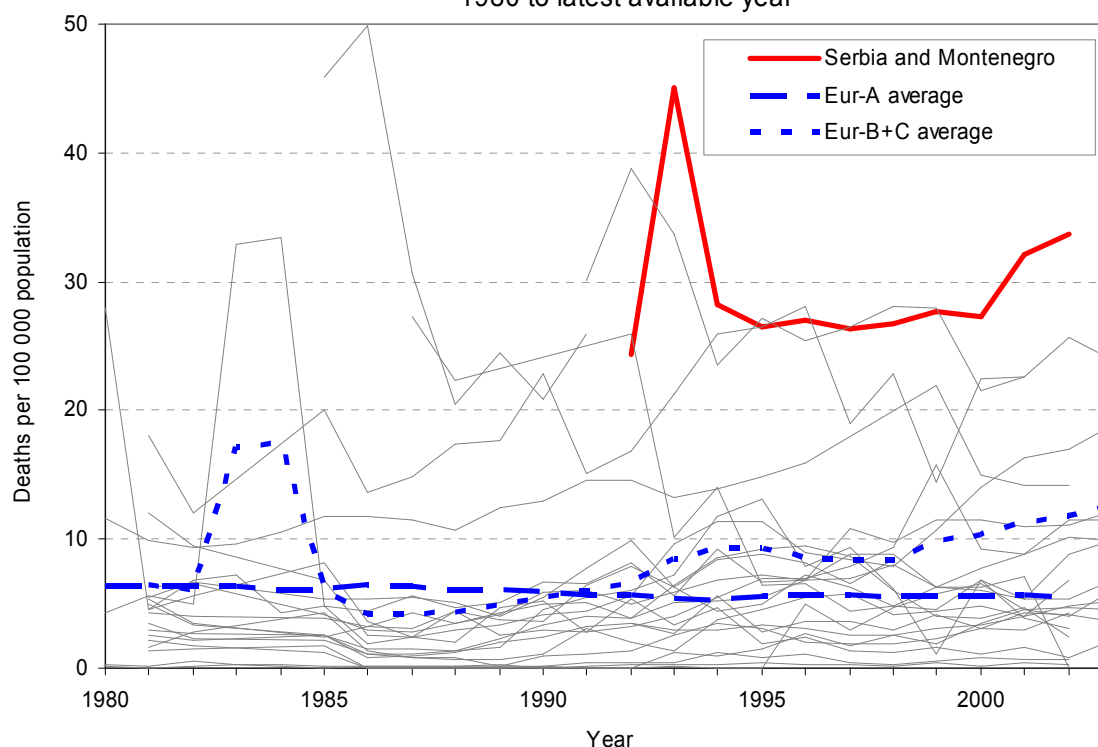
### Digestive diseases

Mortality from diseases of the digestive system in both males and females is rather stable. It has been below the Eur-A average mortality rate, but a 10% increase in the rate for males in 2002 put it above this average. There are some differences, however, between the population below 65 years of age and the older population. In those below 65 years of age, the mortality rates have been declining along with the Eur-A average rates (in males it is a little above it, and in females it is below), while in older men the rate increased by 21% between 1999 and 2002, and in women a 9% increase occurred. This increase in mortality was only partly associated with chronic liver disease and cirrhosis.

### Symptoms, signs, abnormal findings and ill-defined causes

Almost 11% of deaths in Serbia and Montenegro are coded for this group of ill-defined causes, and mortality rates from these causes are increasing. In males, the mortality rate for this group of causes is the second highest in Europe, and in females it is the fourth highest. The total rates are almost six times higher than the Eur-A average rates and about twice as high as the Eur-B+C average rates. Even worse is the situation in the population below 65 years of age, for which the mortality rate for ill-defined causes in Serbia and Montenegro is the highest in Europe.

SDR for symptoms, signs, abnormal findings, ill-defined causes in females aged 25–64 years, Serbia and Montenegro, Eur-A and Eur-B+C averages, 1980 to latest available year



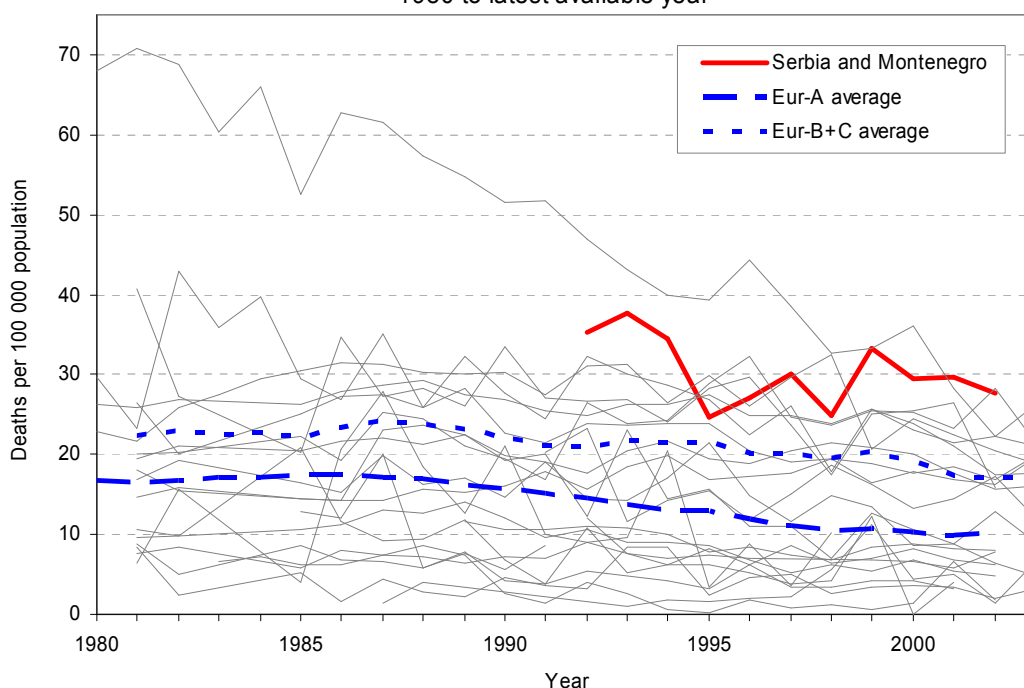
### External causes

Since 1997, the level and trend of mortality rates for external causes in females in Serbia and Montenegro have been similar to those of the Eur-A averages for females, with the trend showing a decline; for males, the rates have been growing slowly since 1995, and in 2002 were 21% above the Eur-

A average. However, in women 65 years old and older, the mortality rates have also been increasing since 1995.

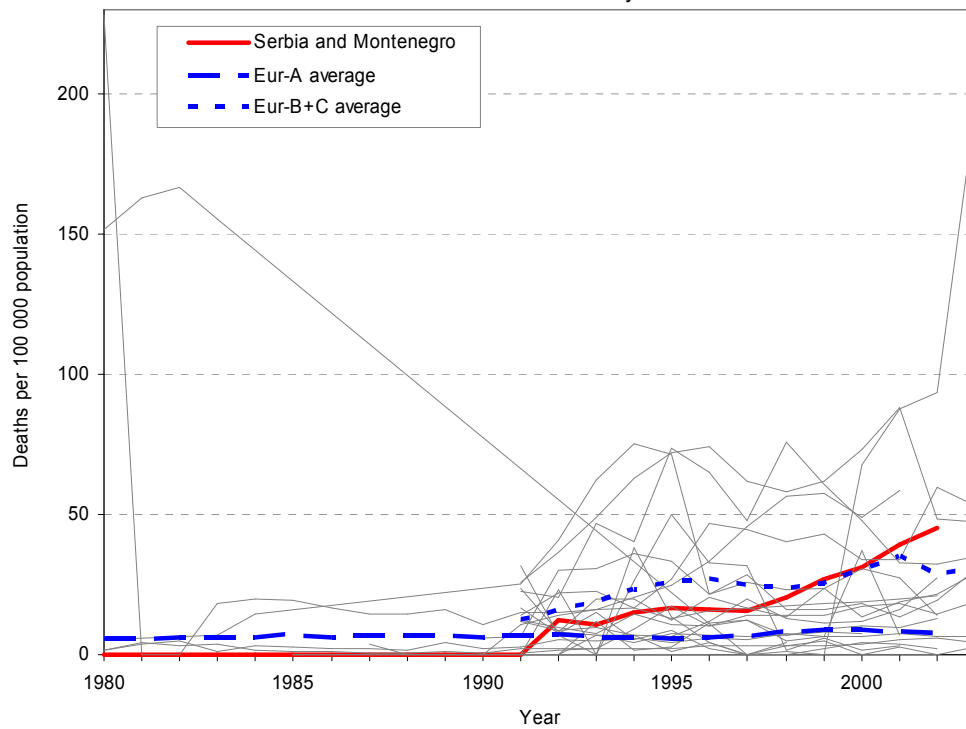
In Serbia and Montenegro, the main subgroup of external causes of death in both sexes is suicide. The rate has been increasing in males since 1998 and, by 2002, grew by 22%, being 56% above the Eur-A average rate (yet well below the Eur-B+C average rate). In females, mortality rates for suicide have been unstable but declining; however, in 2002, they were higher than both the Eur-A average rate (by 63%) and the Eur-B+C average rate (by 11%). The excess mortality from suicide in comparison with the Eur-A average is substantially larger in the older population (aged 65 years and more) than in younger age groups. The mortality rate for suicide in women aged 65 years and older is the highest in European countries.

SDR for suicide in females aged 65+ years,  
Serbia and Montenegro, Eur-A and Eur-B+C averages,  
1980 to latest available year



The second most common external cause of death in both males and females in Serbia and Montenegro are events of undetermined intent. The mortality rates have almost tripled since the mid-1990s: for females, they are at the Eur-B+C average rate, which is three times higher than the Eur-A average rate; for males, they are below the Eur-B+C average rate, yet are 3.6 times higher than the Eur-A average rate. Such an increase in this cause of deaths indicates deterioration in the quality of coding external causes of death and also indicates underreporting of some specific causes.

SDR for events of undetermined intent in males aged 65+ years,  
Serbia and Montenegro, Eur-A and Eur-B+C averages,  
1980 to latest available year



The third most common external cause of death for both sexes is motor vehicle traffic accidents which, until 1999, were the second most common external cause of death. Mortality rates for traffic accidents have been declining unstably and are below the average rate for Eur-A. Also, total mortality rates for accidental drowning and exposure to smoke, fire and flames are similar to Eur-A average total rates; they show a slow decline with some stabilization. Finally, mortality from accidental falls and from accidental poisoning is lower in Serbia and Montenegro than in Eur-A on average.

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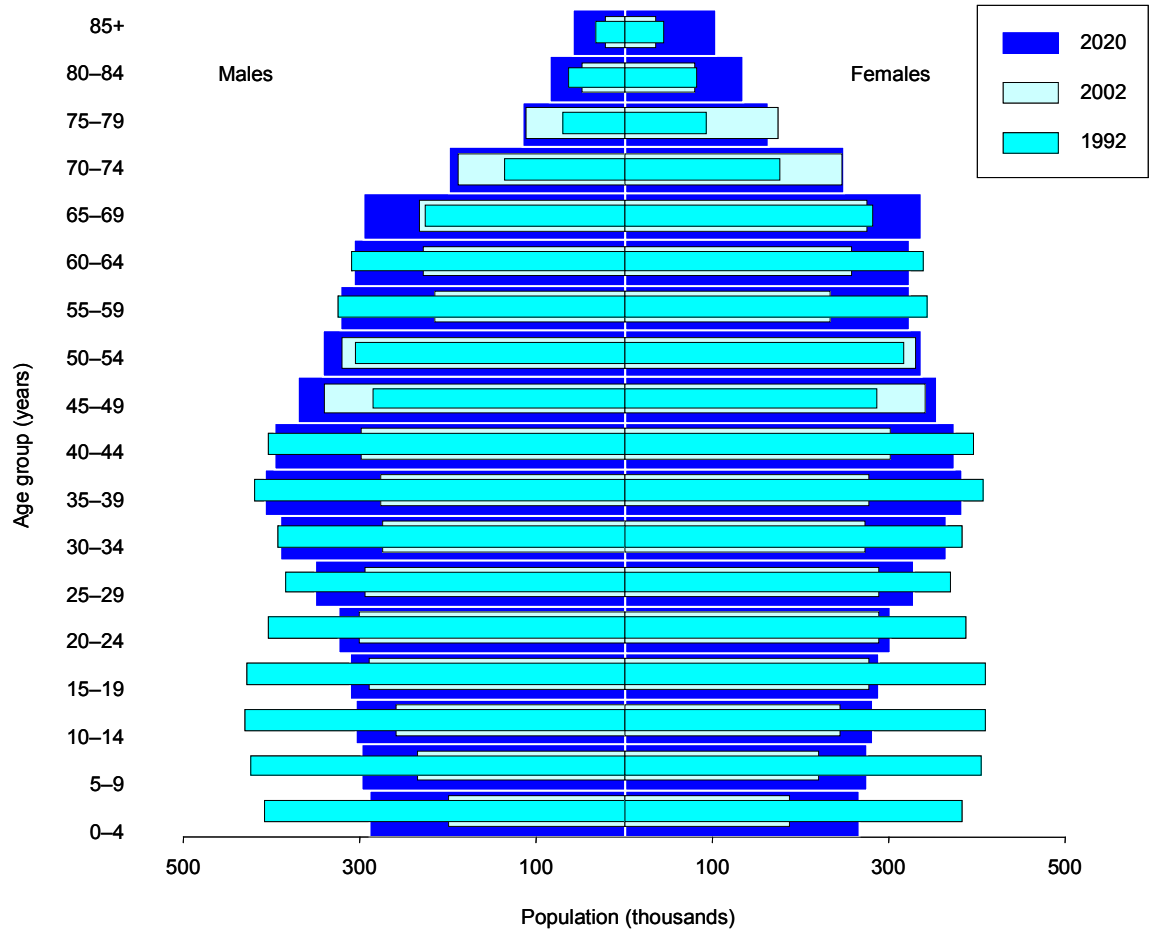
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## Annexes

### Annex. Age pyramid

#### Age pyramid for Serbia and Montenegro



Sources: WHO Regional Office for Europe (2005) and United Nations (2005).

## Annex. Selected mortality

## Selected mortality in Serbia and Montenegro compared with B+C averages

Condition	SDR per 100 000		Excess mortality in Serbia and Montenegro (%)	Total deaths in Serbia and Montenegro (%)	Total deaths in Eur-B+C (%)	Eur-A average	Excess Serbia and Montenegro to Eur-A (%)	Total deaths in Eur-A (%)
	Serbia and Montenegro (2002)	Eur-B+C average (2003)						
<b>Selected non-communicable conditions</b>	851.4	1044.9	-18.5	78.8	79.6	533.8	59.5	82.4
<i>Cardiovascular diseases</i>	584.9	741.8	-21.2	54.1	56.5	243.4	140.3	37.6
Ischaemic heart disease	120.9	362.7	-66.7	11.2	27.6	95.9	26.1	14.8
Cerebrovascular diseases	164.2	221.7	-25.9	15.2	16.9	61.1	168.7	9.4
Diseases of pulmonary circulation and other heart disease	248.8	68.9	261.1	23.0	5.3	56.6	339.6	8.7
<i>Malignant neoplasms</i>	187.0	172.0	8.7	17.3	13.1	181.5	3.0	28.0
Trachea/bronchus/lung cancer	42.8	33.9	26.3	4.0	2.6	37.1	15.4	5.7
Female breast cancer	27.1	22.1	22.6	2.5	1.7	27.0	0.4	4.2
Colon/rectal/anal cancer	20.6	19.0	8.4	1.9	1.4	20.7	-0.5	3.2
Prostate	16.0	14.3	11.9	1.5	1.1	25.1	-36.3	3.9
<i>Respiratory diseases</i>	35.6	63.1	-43.6	3.3	4.8	47.8	-25.5	7.4
Chronic lower respiratory diseases	20.9	31.2	-33.0	1.9	2.4	20.2	3.5	3.1
Pneumonia	5.3	23.6	-77.5	0.5	1.8	16.2	-67.3	2.5
<i>Digestive diseases</i>	29.8	52.3	-43.0	2.8	4.0	30.8	-3.2	4.8
Chronic liver disease and cirrhosis	9.4	32.0	-70.6	0.9	2.4	12.6	-25.4	1.9
<i>Neuropsychiatric disorders</i>	14.1	15.7	-10.2	1.3	1.2	30.3	-53.5	4.7
<b>Communicable conditions</b>	5.5	20.8	-73.6	0.5	1.6	8.4	-34.5	1.3
AIDS/HIV	0.4	0.8	-50.0	0.0	0.1	1.1	-63.6	0.2
<b>External causes</b>	45.7	139.6	-67.3	4.2	10.6	40.3	13.4	6.2
<i>Unintentional</i>	26.8	102.2	-73.8	2.5	7.8	28.7	-6.6	4.4
Road traffic injuries	6.1	14.7	-58.5	0.6	1.1	9.9	-38.4	1.5
Falls	2.1	7.5	-72.0	0.2	0.6	6.1	-65.6	0.9
<i>Intentional</i>	18.9	37.4	-49.5	1.7	2.9	11.6	62.9	1.8
Self-inflicted (suicide)	16.7	23.2	-28.0	1.5	1.8	10.6	57.5	1.6
Violence (homicide)	2.2	14.2	-84.5	0.2	1.1	1.0	120.0	0.2
<b>Ill-defined conditions</b>	116.1	64.0	81.4	10.7	4.9	20.9	455.5	3.2
<b>All causes</b>	1080.8	1312.2	-17.6	100.0	100.0	647.8	66.8	100.0

## Annex. Mortality data

Table 1. Selected mortality for the group 0–14 years by sex in Serbia and Montenegro and Eur-B+C: SDR per 100 000 population and percentage changes from 1995 to latest available year

Causes of death	Sex	Serbia and Montenegro (2002)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
<b>All causes</b>	Both	113.7	-4.0	49.4	-2.4	151.7	-3.8
	M	130.0	-3.4	55.3	-2.5	170.5	-3.9
	F	96.6	-4.7	43.3	-2.4	131.9	-3.8
<i>Infectious and parasitic diseases</i>	M	1.4	-13.1	1.4	-1.1	10.9	-7.0
	F	0.3	-14.0	1.1	-3.0	9.5	-6.6
Intestinal infectious diseases	M	0.0	-14.3	0.2	-0.7	5.1	-8.2
	F	0.2	-14	0.1	-7.3	4.7	-7.9
<i>Malignant neoplasms</i>	M	4.7	0.0	3.3	-1.8	5.1	-1.9
	F	3.6	0.5	2.6	-1.8	4.2	-1.9
<i>Cardiovascular diseases</i>	M	2.6	-4.4	1.4	-3.1	3.3	1.1
	F	4.2	13.8	1.3	-2.5	2.6	0.1
<i>Respiratory diseases</i>	M	2.9	-11.5	1.4	-4.3	35.9	-5.0
	F	2.0	-12.1	1.0	-4.2	30.7	-5.0
Pneumonia	M	1.7	-12.6	0.5	-6.0	20.9	-4.9
	F	0.8	-13.3	0.4	-5.1	17.9	-4.7
<i>Certain conditions originating in perinatal period</i>	M	893.3	-2.3	255.3	-2.1	607.6	-2.7
	F	654.6	-4.0	202.3	-1.6	427.5	-2.7
Congenital malformations and chromosomal abnormalities	M	20.8	0.3	11.6	-2.9	24.2	-2.8
	F	13.8	-3.9	10.0	-3.3	21.0	-2.6
<i>Ill-defined causes</i>	M	16.0	1.7	5.0	-3.9	5.6	-0.6
	F	13.6	-0.5	3.4	-4.2	4.6	-1.0
<i>External causes of injury and poisoning</i>	M	10.8	0.1	7.0	-4.0	29.0	-3.4
	F	6.0	1.2	4.6	-3.2	18.1	-3.1
Motor vehicle traffic injuries	M	1.9	-7.2	2.5	-4.5	4.7	-2.6
	F	1.7	-4.0	1.7	-4.8	3.0	-1.6

Table 2. Selected mortality for the group 15–29 years by sex in Serbia and Montenegro and Eur-B+C: SDR per 100 000 population and percentage changes from 1995 to latest available year

Causes of death	Sex	Serbia and Montenegro (2002)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
<b>All causes</b>	Both	64.7	0.5	56.0	-2.3	161.0	-0.9
	M	91.5	1.2	82.0	-2.3	241.7	-1.0
	F	37.1	-1.0	29.3	-2.2	79.0	-0.6
<i>Infectious and parasitic diseases</i>	M	0.6	-5.3	1.2	1.5	12.3	3.0
	F	1.2	8.1	0.8	1.9	5.1	2.5
<i>Malignant neoplasms</i>	M	9.8	5.0	6.2	-1.0	8.8	-1.9
	F	7.2	1.0	4.7	-1.4	7.7	-1.9
<i>Cardiovascular diseases</i>	M	6.3	-2.6	4.1	-2.4	17.6	0.0
	F	3.8	-1.7	2.3	-2.0	7.3	-0.9
<i>Respiratory diseases</i>	M	1.8	-1.2	1.4	-3.6	6.9	0.2
	F	1.1	-0.4	0.9	-2.7	3.8	-1.1
<i>Digestive diseases</i>	M	0.5	-8.7	0.9	-3.5	8.0	3.0
	F	0.6	-8.8	0.5	-3.8	3.7	3.1
<i>Ill-defined causes</i>	M	17.8	4.8	4.0	-3.1	11.6	7.1
	F	6.1	-1.9	1.4	-1.3	3.3	5.8
<i>External causes</i>	M	49.3	1.6	58.3	-1.4	162.4	-1.6
	F	12.4	0.4	14.4	-1.6	36.9	-0.2
Motor vehicle traffic injuries	M	11.6	-0.5	28.5	-1.3	27.8	-1.5
	F	2.7	-1.3	7.3	-1.4	8.0	0.3
Accidental drowning	M	2.1	1.5	1.3	-2.2	10.8	-3.9
	F	0.2	20.9	0.2	-2.1	1.9	-2.2
Accidental poisoning	M	0.6	-8.6	2.8	0.0	19.1	3.3
	F	0.0	-14.3	0.7	0.8	4.4	2.5
Suicide	M	14.1	3.1	12.7	-1.8	36.8	0.0
	F	3.3	-4.6	3.1	-2.2	5.8	-1.3

Table 3. Selected mortality for the group 30–44 years by sex in Serbia and Montenegro and Eur-B+C:  
SDR per 100 000 population and percentage changes from 1995 to latest available year

Causes of death	Sex	Serbia and Montenegro (2002)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
<b>All causes</b>	Both	172.9	-1.2	120.3	-2.5	453.8	-0.7
	M	223.4	-1.4	161.6	-2.6	700.0	-0.8
	F	123.1	-0.7	78.5	-2.1	215.6	-0.2
<i>Malignant neoplasms</i>	M	39.7	-2.0	27.6	-2.3	40.2	-2.8
	F	47.8	-0.2	31.3	-2.0	43.8	-1.4
Trachea/bronchus/lung cancer	M	12.0	-1.8	5.0	-3.4	7.3	-4.2
Female breast cancer	F	3.9	-1.6	2.8	-0.6	2.2	-1.0
<i>Cardiovascular diseases</i>	F	10.3	-2.3	10.0	-2.6	10.0	-2.3
	M	50.6	-2.1	26.1	-2.5	158.6	-0.4
	F	25.1	-1.8	10.4	-2.1	45.3	0.0
Ischaemic heart disease	M	20.3	-3.7	11.8	-3.1	73.7	-2.2
<i>Cerebrovascular diseases</i>	F	5.2	-3.6	2.4	-2.7	14.4	-1.3
	M	9.8	-4.7	4.4	-3.2	24.6	-0.4
<i>Respiratory diseases</i>	F	8.5	-4.1	3.6	-2.5	10.6	-1.3
	M	3.2	-1.9	3.9	-3.5	34.3	0.9
<i>Digestive diseases</i>	F	2.5	-2.4	2.2	-2.0	9.8	0.8
	M	10.9	-0.7	12.6	-2.4	50.2	1.4
<i>External causes</i>	F	3.6	-1.9	5.4	-1.7	19.4	4.1
	M	63.5	-0.9	58.8	-1.2	299.5	-1.9
	F	14.5	-0.9	15.1	-1.8	58.9	-1.0
Motor vehicle traffic injuries	M	9.4	-6.3	16.0	-0.5	31.4	-1.7
Suicide	F	1.4	-8.2	3.9	-2.0	7.1	-0.5
	M	23.7	3.2	21.2	-1.5	54.9	-2.4
	F	6.9	0.3	5.8	-2.2	7.9	-2.5

Table 4. Selected mortality for the group 45–59 years by sex in Serbia and Montenegro and Eur-B+C:  
SDR per 100 000 population and percentage changes from 1995 to latest available year

Causes of death	Sex	Serbia and Montenegro (2002)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
<b>All causes</b>	Both	803.5	1.0	435.6	-1.3	1294.9	-0.6
	M	1098.2	1.4	580.1	-1.4	1981.7	-0.6
	F	523.6	0.4	293.3	-1.0	698.9	-0.5
<i>Malignant neoplasms</i>	M	315.8	2.4	218.2	-1.2	323.2	-1.9
	F	209.4	1.9	155.0	-1.0	186.1	-0.5
Trachea/bronchus/lung cancer	M	120.6	3.9	65.9	-1.5	101.4	-2.9
Female breast cancer	F	30.9	8.7	21.8	3.4	15.4	1.0
<i>Cardiovascular diseases</i>	F	49.8	0.1	44.0	-2.2	45.3	0.1
	M	402.9	0.1	156.4	-2.6	793.1	-0.1
	F	175.3	-1.6	50.9	-2.5	271.7	-0.6
Ischaemic heart disease	M	157.8	-1.8	86.2	-3.3	435.3	-0.7
<i>Cerebrovascular diseases</i>	F	45.7	-1.5	17.8	-3.4	111.1	-0.6
	M	97.1	0.2	23.7	-2.6	168.6	-0.9
<i>Respiratory diseases</i>	F	67.1	-1.4	14.5	-2.1	88.4	-1.4
	M	26.8	1.0	20.3	-1.7	108.7	-1.4
<i>Digestive diseases</i>	F	11.5	-1.7	10.2	-1.3	24.5	-0.7
	M	54.9	0.1	49.6	-0.8	129.7	0.7
<i>External causes</i>	F	15.1	-1.0	20.3	-0.7	57.3	1.9
	M	91.9	1.9	62.8	-1.0	409.2	-0.9
	F	23.7	-0.9	20.9	-0.9	89.1	-1.1
Motor vehicle traffic injuries	M	13.1	-5.0	13.0	-1.3	28.5	-1.8
Suicide	F	2.9	-3.7	4.1	-2.1	7.5	-1.4
	M	34.7	4.3	23.1	-1.1	68.1	-2.4
	F	11.5	-0.4	8.5	-1.2	10.2	-3.4

Table 5. Selected mortality for the group 60–74 years by sex in Serbia and Montenegro and Eur-B+C: SDR per 100 000 population and percentage changes from 1995 to latest available year

Causes of death	Sex	Serbia and Montenegro (2002)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
<b>All causes</b>	Both	2957.6	0.6	1570.9	-1.9	3411.7	-0.1
	M	3738.9	0.9	2156.9	-2.1	4996.4	0.1
	F	2311.2	0.2	1069.2	-1.9	2339.0	-0.6
<i>Malignant neoplasms</i>	M	918.9	2.1	851.3	-1.4	1002.5	-0.8
	F	503.2	1.8	439.8	-1.1	438.9	-0.7
Trachea/bronchus/lung cancer	M	303.1	1.8	261.8	-1.9	321.7	-1.5
Female breast cancer	F	65.0	6.3	59.0	0.2	37.1	-1.4
<i>Cardiovascular diseases</i>	F	86.5	3.1	79.7	-1.6	68.7	1.3
	M	1813.9	-0.1	744.9	-3.6	2903.0	0.6
	F	1277.0	-0.5	335.7	-3.9	1507.8	-0.3
Ischaemic heart disease	M	516.1	0.7	381.3	-4.2	1582.2	1.2
<i>Cerebrovascular diseases</i>	F	285.3	2.6	133.5	-4.6	731.4	0.5
	M	551.2	0.5	143.3	-3.7	833.7	0.2
<i>Respiratory diseases</i>	F	456.3	0.0	86.7	-4.1	528.9	-0.8
	M	172.8	-0.3	144.0	-3.5	303.0	-2.4
<i>Digestive diseases</i>	F	69.9	-1.4	62.5	-2.4	68.6	-3.6
	M	139.0	0.9	111.6	-1.6	193.0	0.1
<i>External causes</i>	F	64.8	-0.8	54.1	-1.7	94.2	0.2
	M	139.9	2.1	79.3	-1.4	320.0	1.0
Motor vehicle traffic injuries	F	43.4	-0.3	32.1	-2.1	88.7	-0.5
Suicide	M	14.8	-3.2	14.8	-3.0	24.3	-1.5
	F	4.2	-3.9	5.9	-3.4	9.5	-1.0
	M	57.2	3.5	24.5	-1.6	60.5	-0.8
	F	19.2	0.2	8.7	-2.6	12.7	-3.1

Table 6. Selected mortality for the group 75+ years by sex in Serbia and Montenegro and Eur-B+C: SDR per 100 000 population and percentage changes from 1995 to latest available year

Causes of death	Sex	Serbia and Montenegro (2002)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
<b>All causes</b>	Both	12257.1	1.4	8059.6	-1.0	12338.8	0.0
	M	13132.1	2.4	9832.0	-1.1	14838.0	0.1
	F	11719.1	0.8	7112.5	-0.9	11421.7	0.0
<i>Malignant neoplasms</i>	M	1361.6	7.4	2231.1	-0.4	1489.3	1.2
	F	782.5	2.7	1136.2	-0.4	721.7	0.8
Trachea/bronchus/lung cancer	M	262.0	6.8	457.1	-0.7	323.5	1.0
Female breast cancer	F	59.7	2.8	102.7	1.5	55.6	0.5
<i>Cardiovascular diseases</i>	F	114.2	3.2	159.6	-0.4	92.0	3.1
	M	8429.5	1.2	4356.2	-2.1	10221.2	0.4
	F	8350.6	0.0	3577.9	-1.9	8805.6	0.4
Ischaemic heart disease	M	1379.9	12.5	1708.0	-2.2	4925.6	1.4
<i>Cerebrovascular diseases</i>	F	1215.2	15.3	1150.0	-2.2	4028.6	1.2
	M	2125.6	2.1	1119.8	-2.5	3004.4	0.7
<i>Respiratory diseases</i>	F	2145.0	1.3	1026.9	-2.4	2967.6	0.5
	M	594.2	0.7	1156.5	-2.4	824.1	-2.1
<i>Digestive diseases</i>	F	302.8	-2.9	591.9	-2.1	302.3	-3.2
	M	291.3	5.8	340.3	-1.1	270.4	0.3
<i>External causes</i>	F	191.2	4.8	279.8	-0.4	175.0	1.1
	M	256.8	4.7	275.0	-0.6	604.2	0.1
Motor vehicle traffic injuries	F	134.9	8.4	187.8	-1.2	172.4	-1.2
Suicide	M	15.3	-3.8	28.1	-2.2	34.6	-3.1
	F	6.9	-0.9	10.0	-3.1	14.7	-1.7
	M	108.8	1.8	49.5	-1.6	86.6	-1.1
	F	39.5	6.2	11.8	-3.2	22.4	-1.9

## Technical notes

### Calculation of averages

Averages for the reference group, when based on data in the European health for all database of the WHO Regional Office for Europe, are weighted by population. Some countries with insufficient data may be excluded from the calculation of averages. Otherwise, for data from other sources, simple averages have been calculated where required.

To smooth out fluctuations in annual rates caused by small numbers, three-year averages have been used, as appropriate. For example, maternal mortality, usually a small number, has three-year moving averages calculated for all countries. When extreme fluctuations are known to be due to population anomalies, data have been deleted, as appropriate.

### Data sources

To make the comparisons as valid as possible, data for each indicator have, as a rule, been taken from one source to ensure that they have been harmonized in a reasonably consistent way. Unless otherwise noted, the source of data for figures and tables in this report is the January 2005 version of the European health for all database of the WHO Regional Office for Europe. The health for all database acknowledges the various primary sources of the data.

In cases where current census data for national population are unavailable, coupled with ongoing migrations of people in and out of countries, UN estimates or provisional figures supplied by the country are used to approximate national population. Such population figures create uncertainty in standardized death rates.

### Disease coding

Case ascertainment, recording and classification practices (using the ninth and tenth revisions of the International Statistical Classification of Diseases and Related Health Problems: ICD-9 and ICD-10, respectively), along with culture and language, can influence data and therefore comparability across countries.

### Healthy life expectancy (HALE) and disability-adjusted life-years (DALYs)

HALE and DALYs are summary measures of population health that combine information on mortality and non-fatal health outcomes to represent population health in a single number. They complement mortality indicators by estimating the relative contributions of different causes to overall loss of health in populations.

DALYs are based on cause-of-death information for each WHO region and on regional assessments of the epidemiology of major disabling conditions. The regional estimates have been disaggregated to Member State level for the highlights reports.

National estimates of HALE are based on the life tables for each Member State, population representative sample surveys assessing physical and cognitive disability and general health status, and on detailed information on the epidemiology of major disabling conditions in each country.

More explanation is provided in the statistical annex and explanatory notes of *The world health report 2003*<sup>1</sup>.

### Limitations of national-level data

National-level averages, particularly when they indicate relatively good positions or trends in health status, as is the case in most developed countries, hide pockets of problems. Unless the health status of a small population is so dramatically different from the norm that it influences a national indicator, health risks and poorer health outcomes for small groups will only become evident through subnational data.

### Reference groups for comparison

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<sup>1</sup> WHO (2003). *The world health report 2003 – Shaping the future*. Geneva, World Health Organization (<http://www.who.int/whr/2003/en>, accessed 10 June 2005).

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When possible, international comparisons are used as one means of assessing a country's comparative strengths and weaknesses and to provide a summary assessment of what has been achieved so far and what could be improved in the future. Differences between countries and average values allow the formulation of hypotheses of causation or imply links or remedies that encourage further investigation.

The country groups<sup>1</sup> used for comparison are called reference groups and comprise:

- countries with similar health and socioeconomic trends or development; and/or
- geopolitical groups.

The 27 countries with very low child mortality and very low adult mortality are designated Eur-A by WHO. Eur-A comprises Andorra, Austria, Belgium, Croatia, Cyprus, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Monaco, the Netherlands, Norway, Portugal, San Marino, Slovenia, Spain, Sweden, Switzerland and the United Kingdom. However, data for most indicators are unavailable for two of the 27 countries: Andorra and Monaco. Therefore, unless otherwise indicated, Eur-A and averages for Eur-A refer to the 25 countries for which data are available.

The 25 countries with low child mortality and low or high adult mortality are designated Eur-B+C by WHO. Eur-B+C comprises Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Poland, Republic of Moldova, Romania, Russian Federation, Serbia and Montenegro, Slovakia, Tajikistan, Tajikistan, Turkey, Turkmenistan, Ukraine, and Uzbekistan. Unless otherwise indicated, Eur-B+C and averages for Eur-B+C refer to these countries.

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

Graphs have usually been used to show time trends from 1980 onwards. These graphs present the trends for all the reference countries as appropriate. Only the country in focus and the group average are highlighted 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 to be recognized more easily.

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<sup>1</sup> WHO (2004). *The world health report 2004 – Changing history*. Geneva, World Health Organization (<http://www.who.int/whr/2004/en>, accessed 26 August 2004).

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## Glossary

### Causes of death

Causes of death	ICD-10 code
Cerebrovascular diseases	I60–I69
Chronic liver disease and cirrhosis	K70, K73, K74, K76
Chronic obstructive pulmonary disease	J40–J47
Colon/rectal/anal cancer	C18–C21
Diseases of pulmonary circulation and other heart disease	I26–I51
Falls	W00–W19
Female breast cancer	C50
Ischaemic heart disease	I20–I25
Pneumonia	J12–J18
Prostate cancer	C61
Neuropsychiatric disorders	F00–99, G00–99, H00–95
Road traffic injuries	V02–V04, V09, V12–V14, V19–V79, V82–V87, V89
Self-inflicted (suicide)	X60–X84
Trachea/bronchus/lung cancer	C33–C34
Violence	X85–Y09

### Technical terminology

Disability-adjusted life-year (DALY)	The DALY combines in one measure the time lived with disability and the time lost due to premature mortality. One DALY can be thought of as one lost year of healthy life.
GINI index	Measures inequality over the entire distribution of income or consumption. A value of 0 represents perfect equality; a value of 100, perfect inequality. Low levels in the WHO European Region range from 23 to 25; high levels range from 35 to 36. <sup>1</sup>
Healthy life expectancy (HALE)	HALE summarizes total life expectancy into equivalent years of full health by taking account of years lived in less than full health due to diseases and injuries.
Income poverty line (50% of median income)	The percentage of the population living below a specified poverty line: in this case, with less than 50% of median income.
Life expectancy at birth	The average number of years a newborn infant would live if prevailing patterns of mortality at the time of birth were to continue throughout the child's life.
Natural population growth	The birth rate less the death rate
Neuropsychiatric conditions	Mental, neurological and substance use disorders
Population growth	(The birth rate less the death rate) + (immigration less emigration)
Standardized death rate (SDR)	The age-standardized death rate calculated using the direct method: that is, it represents what the crude rate would have been if the population had the same age distribution as the standard European population.

<sup>1</sup>WHO Regional Office for Europe (2002). *The European health report 2002*. Copenhagen, WHO Regional Office for Europe:156 (<http://www.euro.who.int/europeanhealthreport>, accessed 28 May 2004).