

# Atlas of health in Europe

2nd edition 2008

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in Europe  
2nd edition 2008**





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## Foreword

*Decisions on public health are based on evidence and profound understanding of a wide range of factors, including health data and statistics. Policy-makers take into consideration all available data about health and its determinants in their countries and, on this basis, shape their policies and design their actions. To facilitate the decision-making process, however, they also need to have synthetic yet simple ways to review and compare information, such as the graphics and maps used in this atlas. Contrasting national with international health data allows a broader picture of public health: statistical figures backed by subsequent in-depth analyses can be a powerful resource for health authorities in identifying failures and successes, constraints and good practices.*

*The WHO Regional Office for Europe presents the second edition of this publication to a wide range of public health and medical professionals, as well as broader audiences. New data on relevant health issues in the WHO European Region have been incorporated in this edition to better reflect the new challenges confronting public health. Rich and elaborate data from various sources have been gathered, systematized, grouped and reformatted to help readers to go through them and gain an overall picture of health in the Region, to the extent it can be expressed in figures.*

*We at the Regional Office hope that this statistical publication will be useful to those committed to work for the improvement of public health throughout the Region, and stimulate review and discussion of its contents.*

**Marc Danzon**  
*WHO Regional Director  
for Europe*

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## Technical notes

This publication contains basic health-related statistics for the 53 Member States in the WHO European Region. The data cover the main aspects of health and its determinants: that is, basic demographic data, health status in terms of mortality and morbidity, and some indicators on lifestyles, environment and health care resources and their utilization. The period covered runs from 1980 at the earliest to 2006 at the latest, depending on the data available in countries.

Most of the data used in this publication come from countries themselves, usually from statistical units of health ministries or public health institutions, and national statistical institutions. These data are systematically collected by WHO technical staff (at the Regional Office for Europe or in headquarters) or by WHO collaborating centres. All these data, and more, are available in databases accessible on the Regional Office and headquarters web sites (1,2). For the sake of completeness, some publicly available data collected and published by other international organizations – the Statistical Office of the European Community (EUROSTAT), the International Labour Organization (ILO), the United Nations Economic Commission for Europe (UNECE), the Organisation for Economic Co-operation and Development (OECD), the Food and Agriculture Organization of the United Nations (FAO) – have also been included when appropriate, with the information source acknowledged.

Data were compiled, validated and processed in a uniform way to improve the international comparability of statistics. Nevertheless, many factors – such as variations in national definitions, incomplete registration in some countries or other national specificities in data recording and processing – may influence the accuracy and comparability of the national statistics. Statistics, particularly in international comparisons, should therefore always be interpreted with caution. The same applies to statistics for countries with very small populations, where figures tend to “jump” up and down purely because of the small numbers registered. On the other hand, the “statistical noise” from possible data inaccuracies or random fluctuations due to small figures is usually not high enough to mask completely what the statistics show.

Most of the data in this publication are presented in three standard graphic forms.

**The ranked bar chart** shows the relative position of each country in relation to other countries according to the latest data available. As the timing of data reporting to WHO varies a lot, data from different years often have to be used. When more recent data are provided, rankings may change.

**The map** aims to reveal specific geographical patterns in the data, such as the east–west mortality gradient. Again, data from different years may have to be used, although 2005 and 2006 are the most common years.

**The line chart** shows health trends for the last 25 years in two parts of the Region. Technically, it is difficult to present trends separately for each of the 53 countries on one line chart. On the other hand, had only the average trends for the whole Region been given, some important subregional differences in health trends would not have been visible. Subregional population-weighted averages for each indicator are therefore calculated for two groups of countries:

- Eur-A, comprising 27 countries in the WHO European Region with very low child and adult mortality: 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; and
- Eur-B+C, comprising 26 countries in the Region: Eur-B (17 countries with low child and adult mortality: Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Georgia, Kyrgyzstan, Montenegro, Poland, Romania, Serbia, Slovakia, Tajikistan, the former Yugoslav Republic of Macedonia, Turkey, Turkmenistan and Uzbekistan) and Eur-C (9 countries with low child but high adult mortality: Belarus, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, Moldova, the Russian Federation and Ukraine).

The names used for countries are those that were correct at the time of going to print.

Unless otherwise stated, death rates are age-standardized death rates (SDR): the number of deaths per 100 000 people in a “standard” population. This facilitates international comparability by removing differences in rates caused by different population age structures

between countries. The European “standard population” (see the table below) was used to calculate the SDR.

The mortality rates used cover all age groups: those aged under 65 years (so-called premature mortality) or aged 25–64 (representing the working age) in most cases. Readers interested in other, or more detailed age groups may consult the European Health for All or mortality databases (1,3).

### The European standard population structure

Age (years)	Percentage of population	Age (years)	Percentage of population
0	1.6	45–49	7
1–4	6.4	50–54	7
5–9	7	55–59	6
10–14	7	60–64	5
15–19	7	65–69	4
20–24	7	70–74	3
25–29	7	75–79	2
30–34	7	80–84	1
35–39	7	≥ 85	1
40–44	7	All ages	100



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# 1. Demography

## Notes

### Population (p. 7)

In mid-2006, the population of the 53 countries in the WHO European Region totalled 881.5 million. The six largest countries (the Russian Federation, Germany, Turkey, France, the United Kingdom and Italy) make up more than half of the Region's population.

### Natural population growth (pp. 8–9)

In the 1990s, the decline in the number of births and the increase in the number of deaths reached a cross-over point for several countries, mostly in the central and eastern part of the European Region. Nevertheless, there are now again more births than deaths in the Region as a whole.

### Age structure (pp. 9–12)

In general, European countries have ageing populations. Every seventh person is aged 65 years or more, and this proportion is growing while the proportion of children is declining. The ageing process is more advanced in Eur-A countries: the western part of the Region. The graphs are based on population data by age, as most recently reported by countries to WHO and EUROSTAT.

### Births (pp. 13–16)

Live birth rates were declining in the Region until the beginning of the 21st century, and this decline was particularly sharp in Eur-B+C countries. This was most likely due to the profound socioeconomic changes in this group and the economic crises in some of the countries.

The proportion of infants with low birth weight (below 2500 g) is on average higher in Eur-A countries than in Eur-B+C countries, and is growing in the former. Low-weight births, however, may be high but underreported in some countries of the eastern part of the Region.

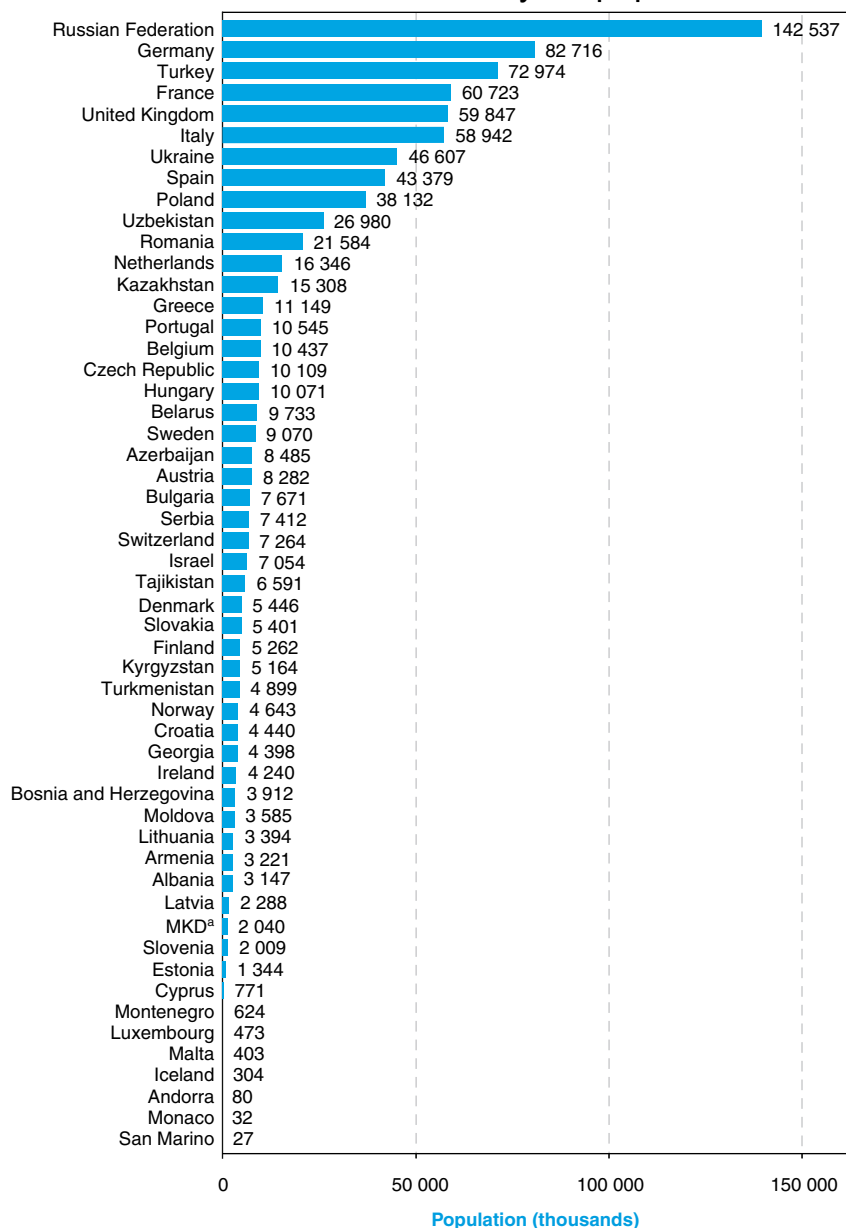
While births to young mothers are most common in the eastern part of the Region, births to mothers aged over 35 years are most frequent in western countries.

### **Abortions (p. 17)**

The legal requirements for abortion vary between countries. In general, the average rates of abortion are higher in countries in the eastern and central parts of the Region than in the western part.

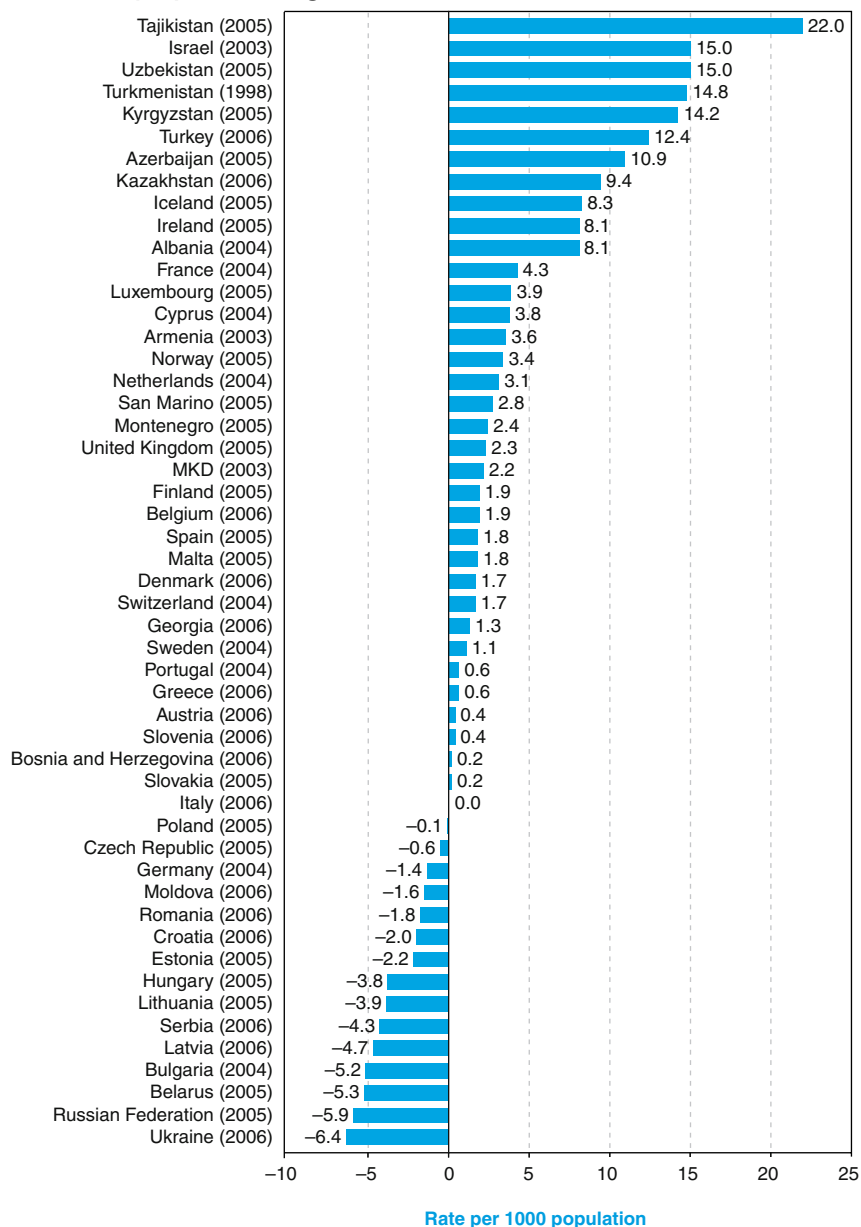


## Mid-year population, 2006



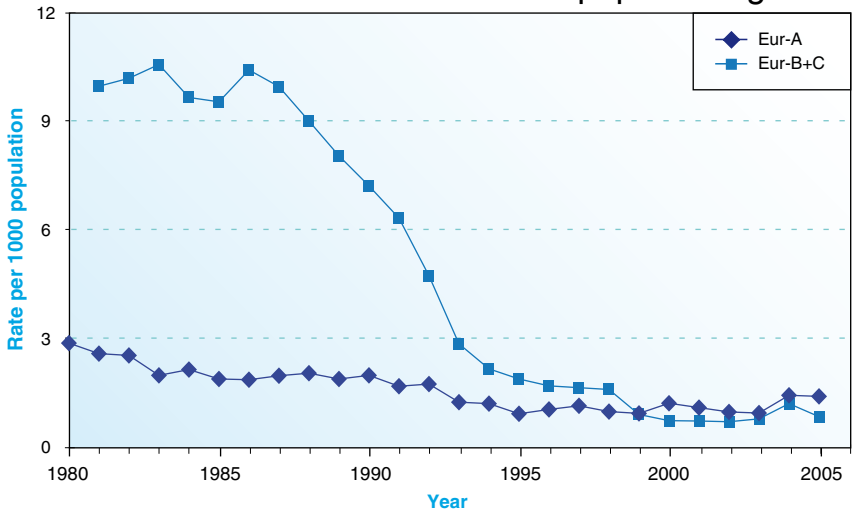
<sup>a</sup> The International Organization for Standardization (ISO) abbreviation for the former Yugoslav Republic of Macedonia is used throughout this book.

## Natural population growth

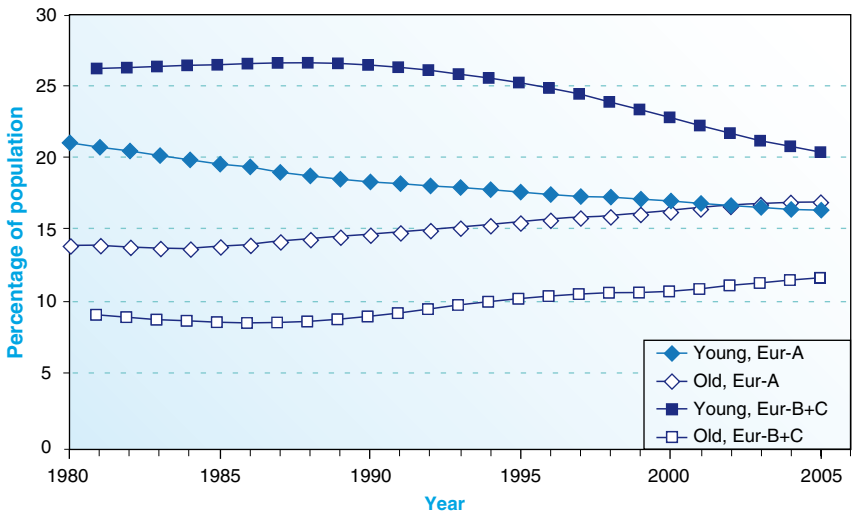


Note. Data for Italy, Belgium, Denmark, Bosnia and Herzegovina, Turkey and Georgia are from EUROSTAT.

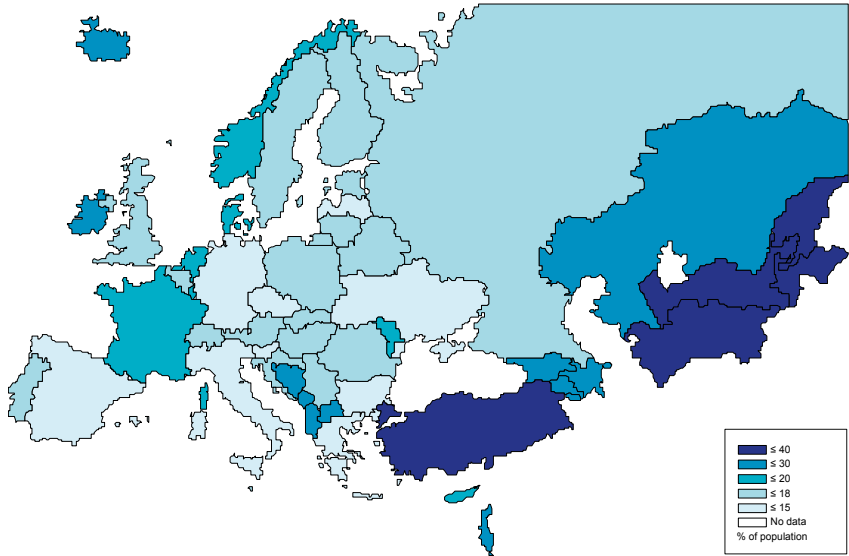
### Natural population growth



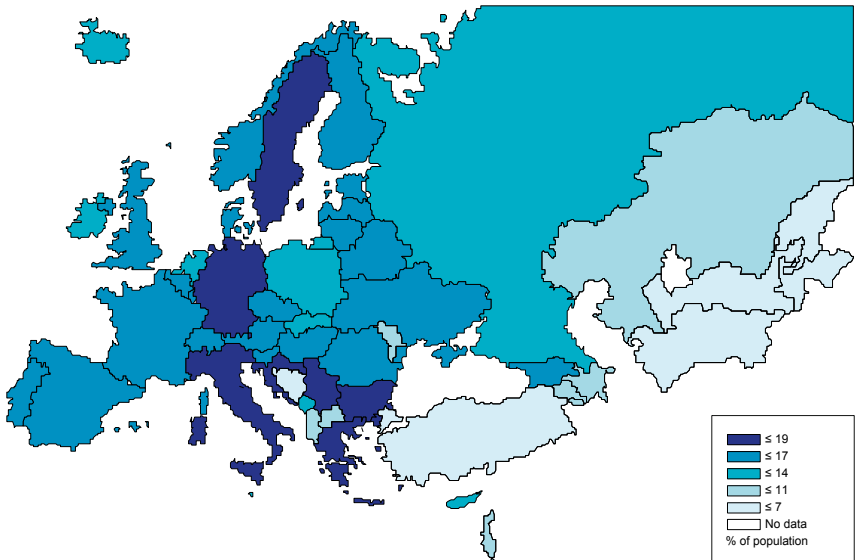
### Young population (0–14 years) and old population (65+ years)



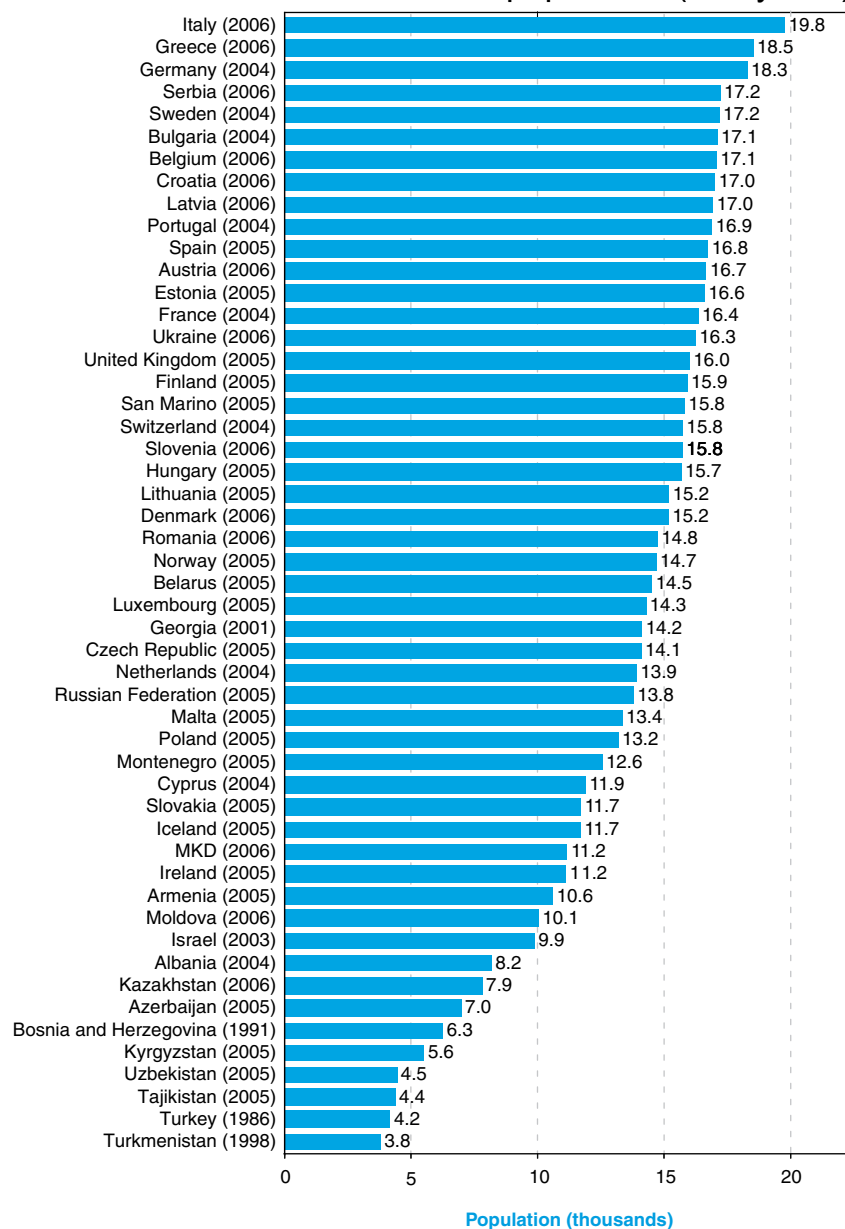
### Young population (0–14 years)



### Old population (65+ years)

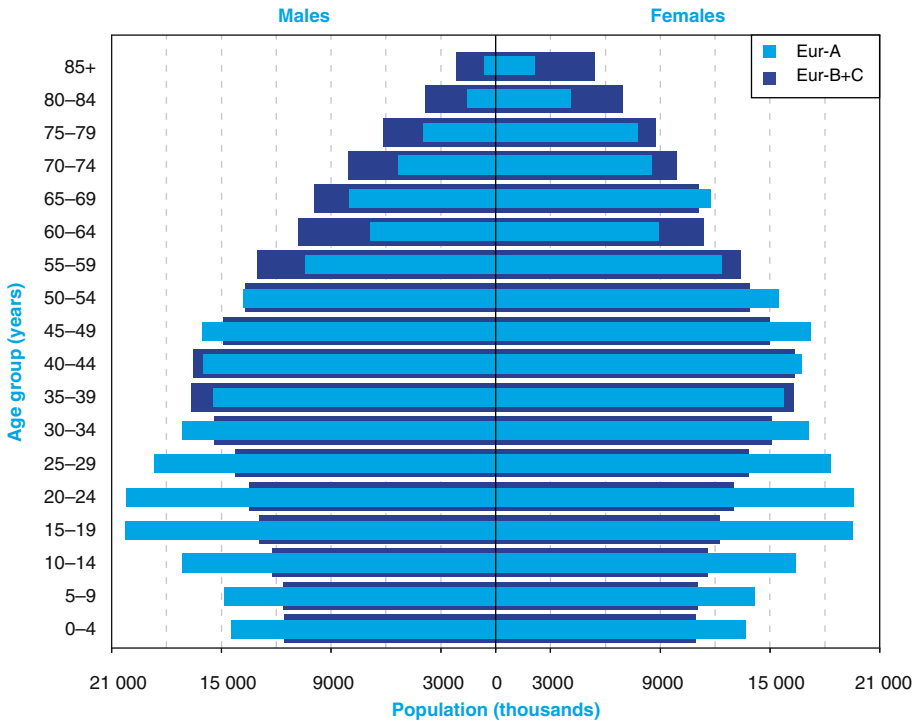


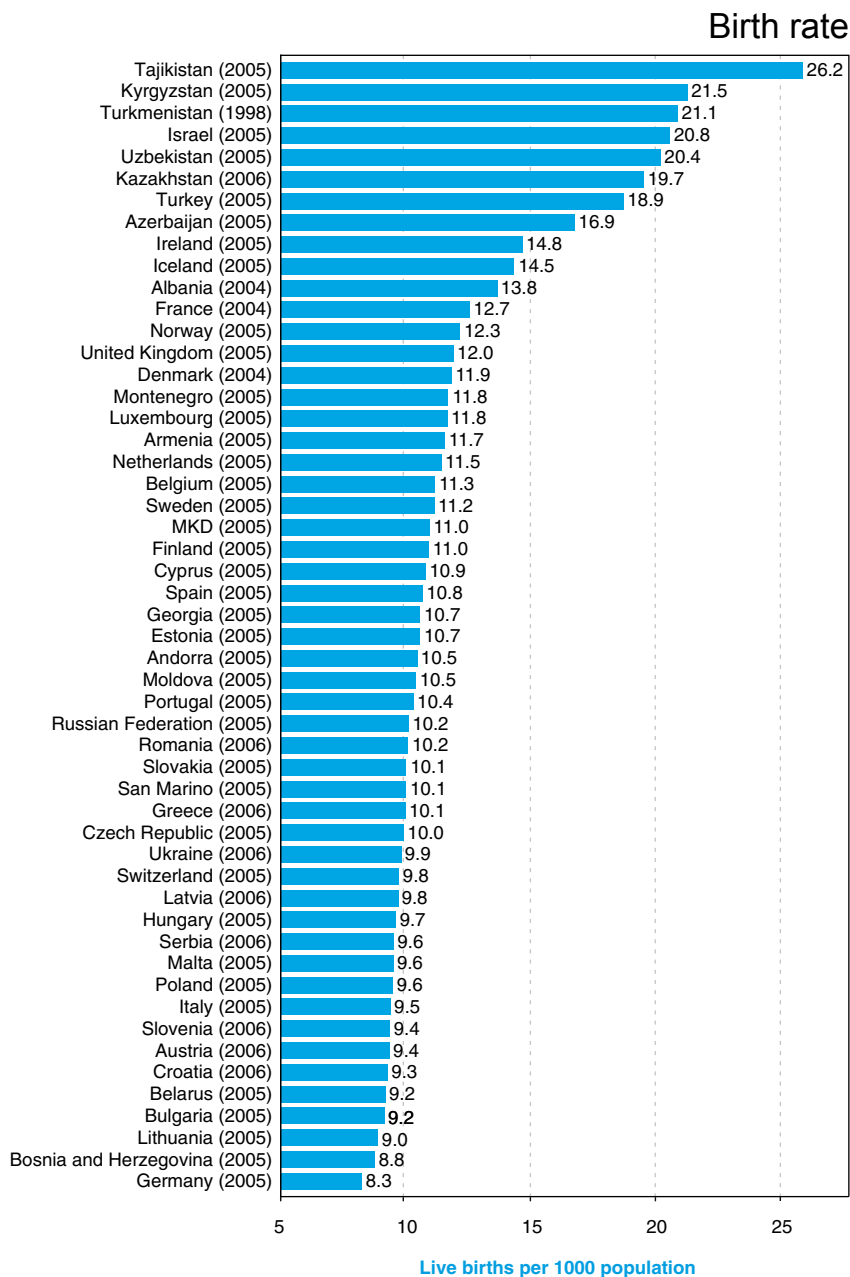
## Old population (65+ years)



Note. Data for Belgium, Denmark, Italy, and the former Yugoslav Republic of Macedonia are from EUROSTAT.

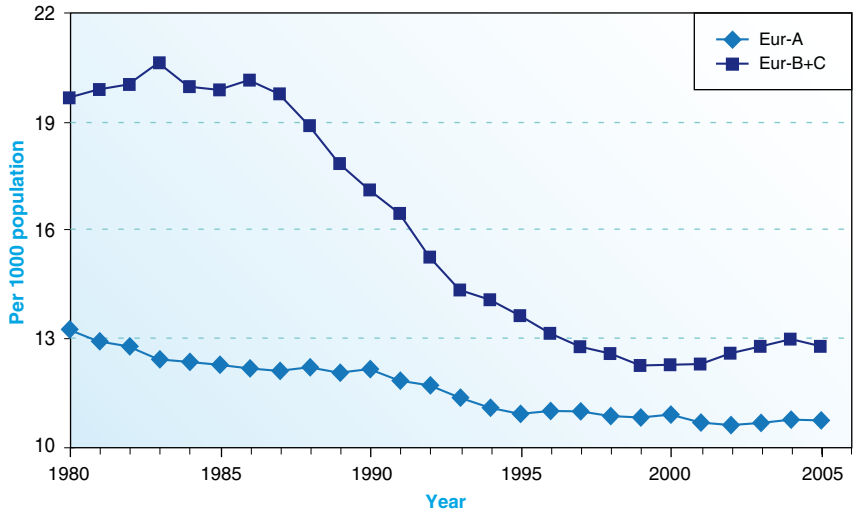
### Age pyramid, 2005



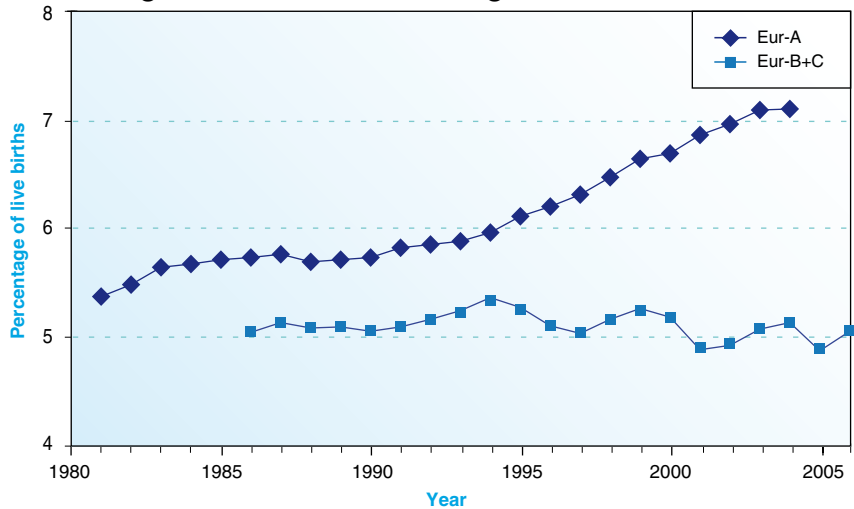


Note. Data for Bulgaria and Germany are from EUROSTAT.

### Birth rate

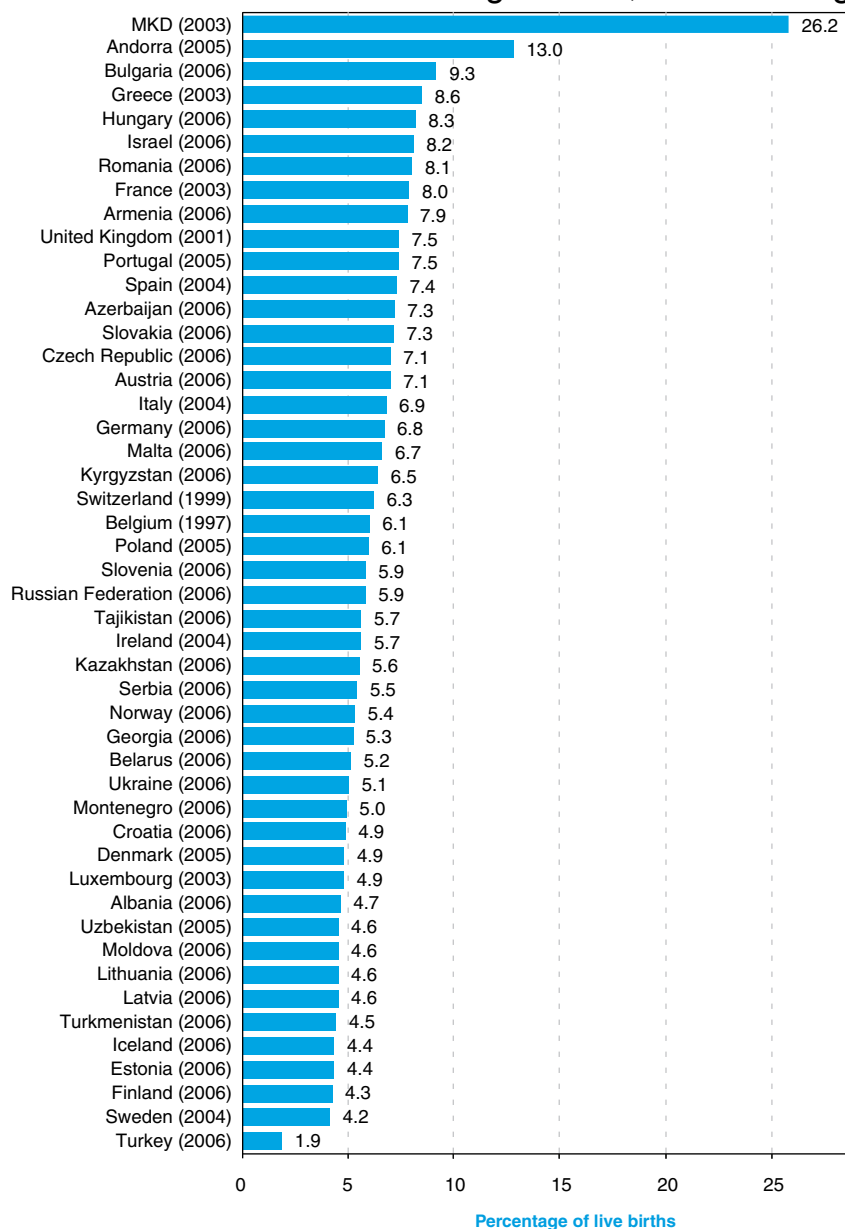


### Low-weight births, under 2500 g

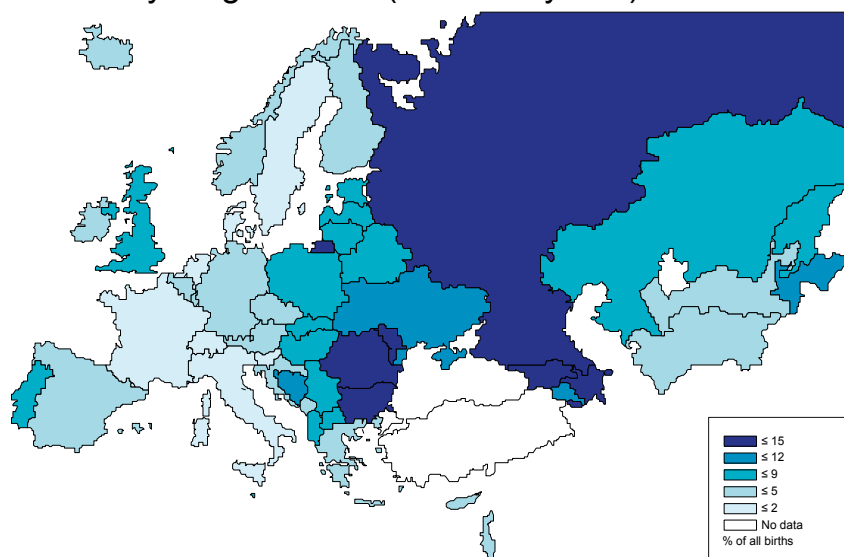




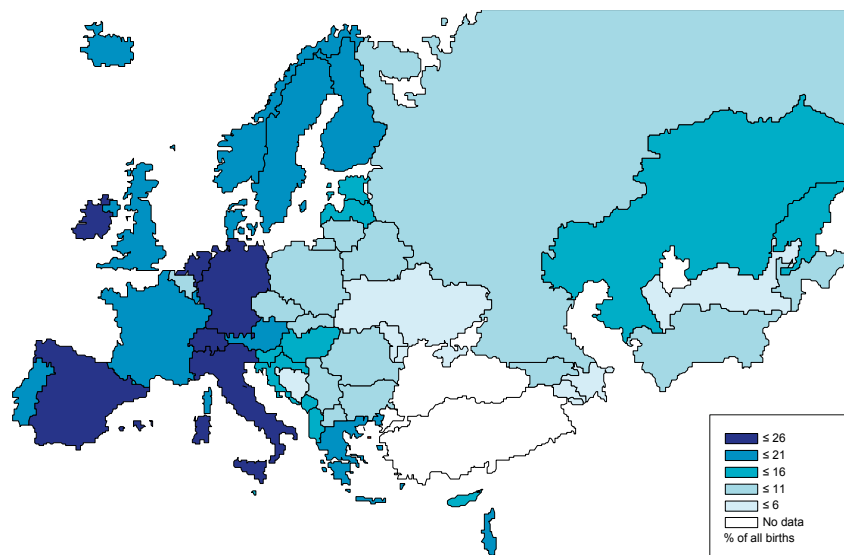
## Low-weight births, under 2500 g

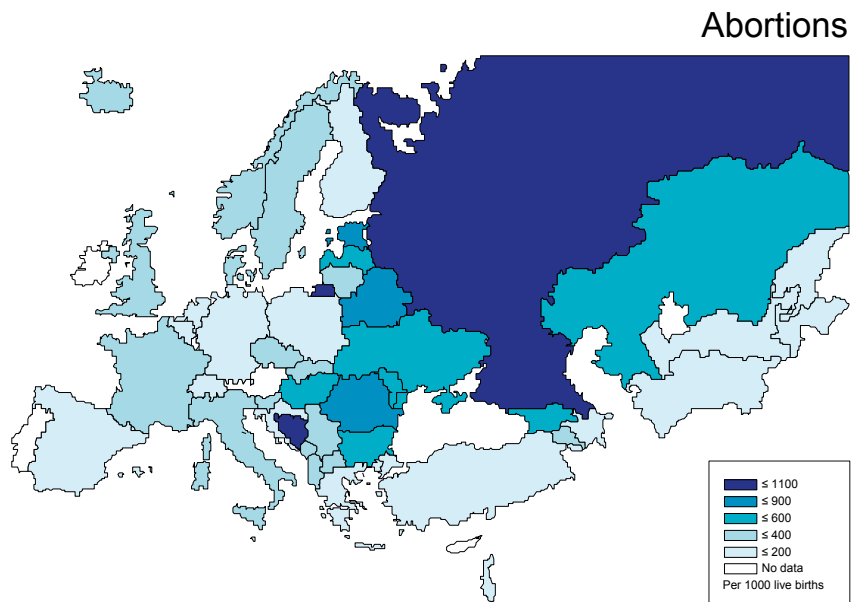


## Births to young mothers (under 20 years)



## Births to older mothers (35+ years)







## 2. Life and death

### Notes

#### **Life expectancy (pp. 23–27)**

Life expectancy, or the average number of years that a newborn baby can expect to live if mortality patterns remain unchanged, is one of the most common measurements of a population's health. As it is calculated using mortality statistics, its accuracy depends on the accuracy and completeness of official national mortality data. The table on p. 23 shows two different estimates of life expectancy. One is the conventional life expectancy based on reported official mortality statistics. The other estimate is calculated using special demographic techniques to counteract possible underreporting of deaths (see *The world health report 2006 (4)* for details on methodology). Countries with the largest differences between these two estimates most probably have life expectancy well below the level calculated from official statistics. This problem occurs mainly in countries in central Asia, the Caucasus and the Balkans. These were affected by armed conflict and severe socioeconomic difficulties during the 1990s and many countries' national vital statistics systems (registration of marriages, births and deaths) were damaged. This should be kept in mind when making comparisons between life expectancy in these areas and in other countries.

The trends in life expectancy show a still growing gap between western and eastern parts of the Region. The average trend for Eur-B+C countries is particularly complex, as it reflects the effects of both the anti-alcohol campaigns introduced in the USSR in 1985 and the deep socioeconomic crises of the 1990s in some countries. The trends in cause-specific mortality show the same pattern. Nevertheless, life expectancy showed a remarkable increase in several Eur-B+C countries since the mid-1990s.

Disability-adjusted life expectancy (often called healthy life expectancy) shows the estimated number of years of life expected to be lived in full health, while taking account of years lived in less than full health due to disease and/or injury. WHO calculated these estimates by using special techniques developed to maximize comparability across populations

(see *The world health report 2004 (5)* for details on methodology). The bar chart shows what percentage of expected length of life that a child born in 2002 could expect to live in good health.

### **Deaths from all causes (pp. 27–29)**

Mortality gradually increases from the western to the eastern part of the Region. The level of premature mortality (deaths in people aged below 65 years) varies particularly dramatically in relative terms. East–west differences in mortality of the elderly population (those aged 65 years and over) are relatively less pronounced.

Excess male mortality is presented as a percentage of the excess of male over female death rates on the left side of the bar charts. Particularly high premature male mortality in some eastern countries makes the largest contribution proportionally to the east–west gap in total mortality.

### **Infant deaths (pp. 30–31)**

Infant mortality shows the number of deaths of children below 1 year of age per 1000 live births. Unfortunately, some countries are not able to ensure complete registration of infant deaths and live births or to report them according to the WHO definition. Infant mortality rates reported by those countries are therefore lower than the actual rates, and intercountry comparisons should be treated with caution. For that reason, the bar chart with reported infant mortality rates also presents the most recent (2006) estimated infant mortality rates, which are based on the work of the Inter-agency Group for Child Mortality Estimation, which includes the United Nations Children’s Fund (UNICEF), WHO, the World Bank and the United Nations Population Division (6).

Levels of underregistration are particularly high in countries in central Asia and the Caucasus and in some other countries, such as Albania and Bosnia and Herzegovina.

Infant mortality is higher in the eastern part of the Region, with the highest levels in some south-eastern countries. Taking into account the above-mentioned underregistration, the real infant mortality in these countries is likely to be even higher.

### **Perinatal deaths (p. 32)**

The rate shows the number of deaths of fetuses weighing 1000 g or more and of newborn babies aged 0–6 full days per 1000 births (live and

stillborn). Where weight-specific data were not available, calculations were based on the data provided by countries, whatever the national criteria. For that reason and owing to possible incomplete registration of perinatal deaths in the countries where infant mortality is incomplete, intercountry comparisons should be treated with caution.

### **Maternal deaths (pp. 33–34)**

A maternal death is the death of a woman while pregnant or within 42 days of the end of a pregnancy, from any cause related to or aggravated by the pregnancy or its management. The maternal mortality ratio (deaths per 100 000 live births) was calculated using mortality data from routine vital statistics reported to WHO and hospital data reported by health ministries, taking the larger figure where they differed.

Even in countries with good vital statistics systems, however, maternal mortality is believed to be higher than reported. For that reason, the bar chart with the reported maternal mortality ratios also presents the most recent (2005) estimated maternal mortality ratios, which are based on the work of WHO, UNICEF, the United Nations Population Fund (UNFPA) and the World Bank (7).

### **Deaths by cause and age (p. 35)**

The importance of specific causes of death differs significantly in the different phases of the lifespan. Respiratory and some other diseases are leading causes of death in childhood, replaced by accidents and other external causes of death among adolescents and young adults. Cancer and diseases of the circulatory system become leading causes of death in older age groups.

### **Deaths from diseases of the circulatory system (pp. 36–42)**

The average trends in mortality from cardiovascular diseases are declining in Eur-A countries. The average rates for Eur-B+C countries do not show improvement; they are stable in females and still rising in males. Nevertheless, this group of countries is not homogeneous; mortality trends have been declining in a number of them, while increasing in others, for several years. A clear east–west gradient contributes a large part of the east–west difference in total mortality and life expectancy.

The pattern of trends and differences in death rates from ischaemic heart disease and cerebrovascular diseases are similar to those for all diseases

of the circulatory system, while average death rates for pulmonary heart disease and other heart diseases in Eur-B+C countries show a striking increase.

### **Deaths from cancer (pp. 42–53)**

Trends in cancer death rates show some general improvement in the European Region. The average cancer mortality in western countries is relatively low in younger age groups and relatively high among the older population. The opposite is true in the eastern part of the Region, although mortality is relatively low in both the younger and older age groups in some central Asian countries and Georgia. In the central part of the Region, cancer mortality is high in both younger and older age groups.

Female mortality from lung cancer is steadily increasing in Eur-A countries; in Eur-B+C as a whole, there is no progress in reducing deaths from colorectal cancer among older people, breast cancer in older women and cancer of the cervix uteri in younger women.

### **Deaths from external causes of injury and poisoning (pp. 54–58)**

External causes of death from injury and poisoning include accidents, homicide, suicide and other causes that are not diseases. The remarkable increase in mortality from these causes in Eur-B+C in the first half of the 1990s is attributable to the combined effect of the end of the anti-alcohol campaigns that started in the USSR in 1985 and the socioeconomic crises of the 1990s. The excess mortality in Eur-B+C in relation to mortality in the Eur-A group is striking, especially in males.

### **Deaths from diseases of the respiratory system (pp. 59–60)**

In general, deaths from respiratory conditions are declining in both groups of countries. While mortality in males is higher in Eur B+C than in Eur-A, rates for females show little difference.

### **Deaths from diseases of the digestive system (pp. 61–64)**

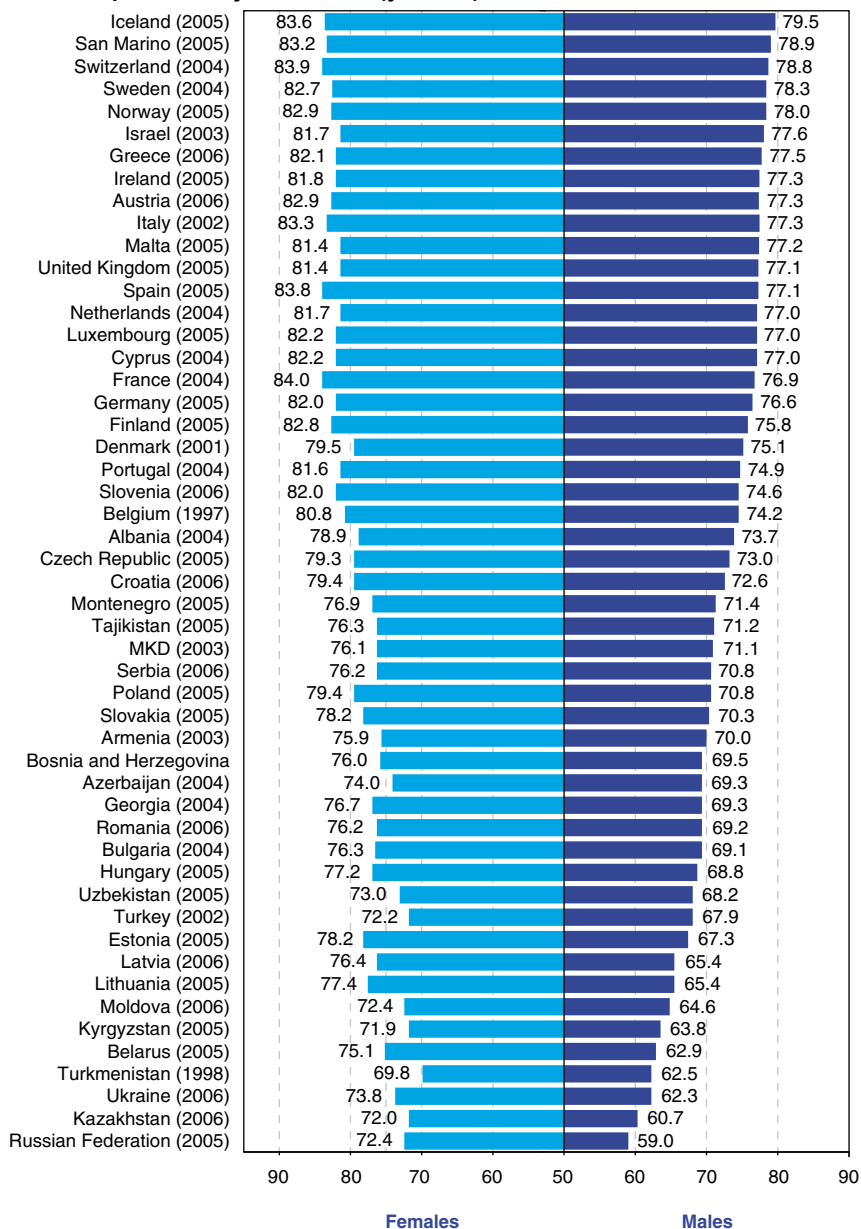
Deaths from chronic liver disease and cirrhosis are responsible for about a half of all deaths from diseases of the digestive system. Mortality is steadily declining in Eur-A countries, but increasing in the Eur-B+C group.



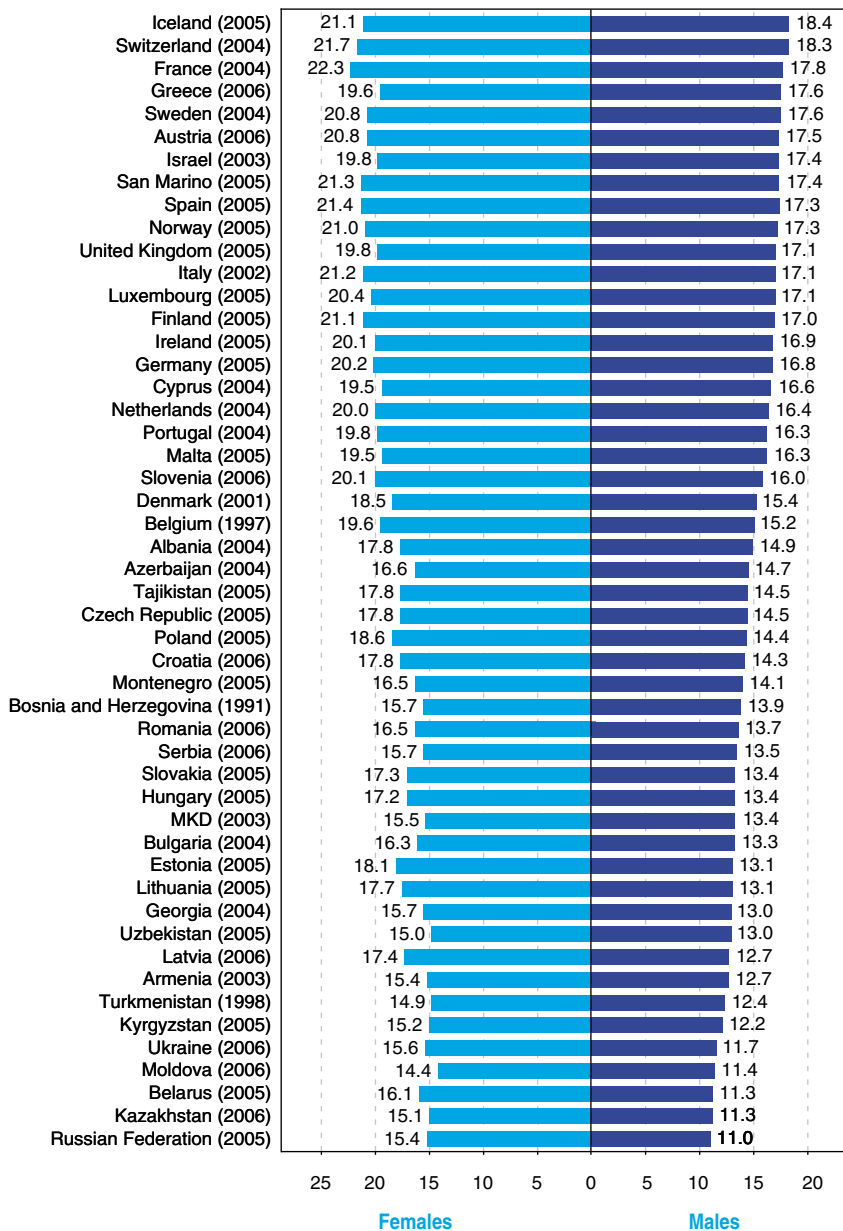
## Conventional and estimated life expectancy

Country (year)	Males		Females	
	Conventional life expectancy (years)	Estimated life expectancy, 2004 (years)	Conventional life expectancy (years)	Estimated life expectancy, 2004 (years)
Albania (2004)	73.7	69.0	78.9	74.0
Andorra		77.0		83.0
Armenia (2003)	70.0	65.0	75.9	72.0
Austria (2006)	77.3	76.0	82.9	82.0
Azerbaijan (2004)	69.3	63.0	74.0	68.0
Belarus (2005)	62.9	63.0	75.1	74.0
Belgium (1997)	74.2	75.0	80.8	81.0
Bosnia and Herzegovina (1991)	69.5	70.0	76.0	77.0
Bulgaria (2004)	69.1	69.0	76.3	76.0
Croatia (2006)	72.6	72.0	79.4	79.0
Cyprus (2004)	77.0	77.0	82.2	82.0
Czech Republic (2005)	73.0	73.0	79.3	79.0
Denmark (2001)	75.1	75.0	79.5	80.0
Estonia (2005)	67.3	66.0	78.2	78.0
Finland (2005)	75.8	75.0	82.8	82.0
France (2004)	76.9	76.0	84.0	83.0
Georgia (2004)	69.3	70.0	76.7	77.0
Germany (2005)	76.6	76.0	82.0	82.0
Greece (2006)	77.5	77.0	82.1	82.0
Hungary (2005)	68.8	69.0	77.2	77.0
Iceland (2005)	79.5	79.0	83.6	83.0
Ireland (2005)	77.3	75.0	81.8	81.0
Israel (2003)	77.6	78.0	81.7	82.0
Italy (2002)	77.3	78.0	83.3	84.0
Kazakhstan (2006)	60.7	56.0	72.0	67.0
Kyrgyzstan (2005)	63.8	59.0	71.9	67.0
Latvia (2006)	65.4	66.0	76.4	76.0
Lithuania (2005)	65.4	66.0	77.4	78.0
Luxembourg (2005)	77.0	76.0	82.2	81.0
Malta (2005)	77.2	76.0	81.4	81.0
Monaco		78.0		85.0
Montenegro (2005)	71.4		76.9	
Netherlands (2004)	77.0	77.0	81.7	81.0
Norway (2005)	78.0	77.0	82.9	82.0
Poland (2005)	70.8	71.0	79.4	79.0
Portugal (2004)	74.9	74.0	81.6	81.0
Moldova (2006)	64.6	64.0	72.4	71.0
Romania (2006)	69.2	68.0	76.2	76.0
Russian Federation (2005)	59.0	59.0	72.4	72.0
San Marino (2005)	78.9	79.0	83.2	84.0
Serbia (2006)	70.8		76.2	
Slovakia (2005)	70.3	70.0	78.2	78.0
Slovenia (2006)	74.6	73.0	82.0	81.0
Spain (2005)	77.1	77.0	83.8	83.0
Sweden (2004)	78.3	78.0	82.7	83.0
Switzerland (2004)	78.8	78.0	83.9	83.0
Tajikistan (2005)	71.2	62.0	76.3	64.0
MKD (2003)	71.1	69.0	76.1	76.0
Turkey (2002)	67.9	69.0	72.2	73.0
Turkmenistan (1998)	62.5	56.0	69.8	65.0
Ukraine (2006)	62.3	62.0	73.8	73.0
United Kingdom (2005)	77.1	76.0	81.4	81.0
Uzbekistan (2005)	68.2	63.0	73.0	69.0

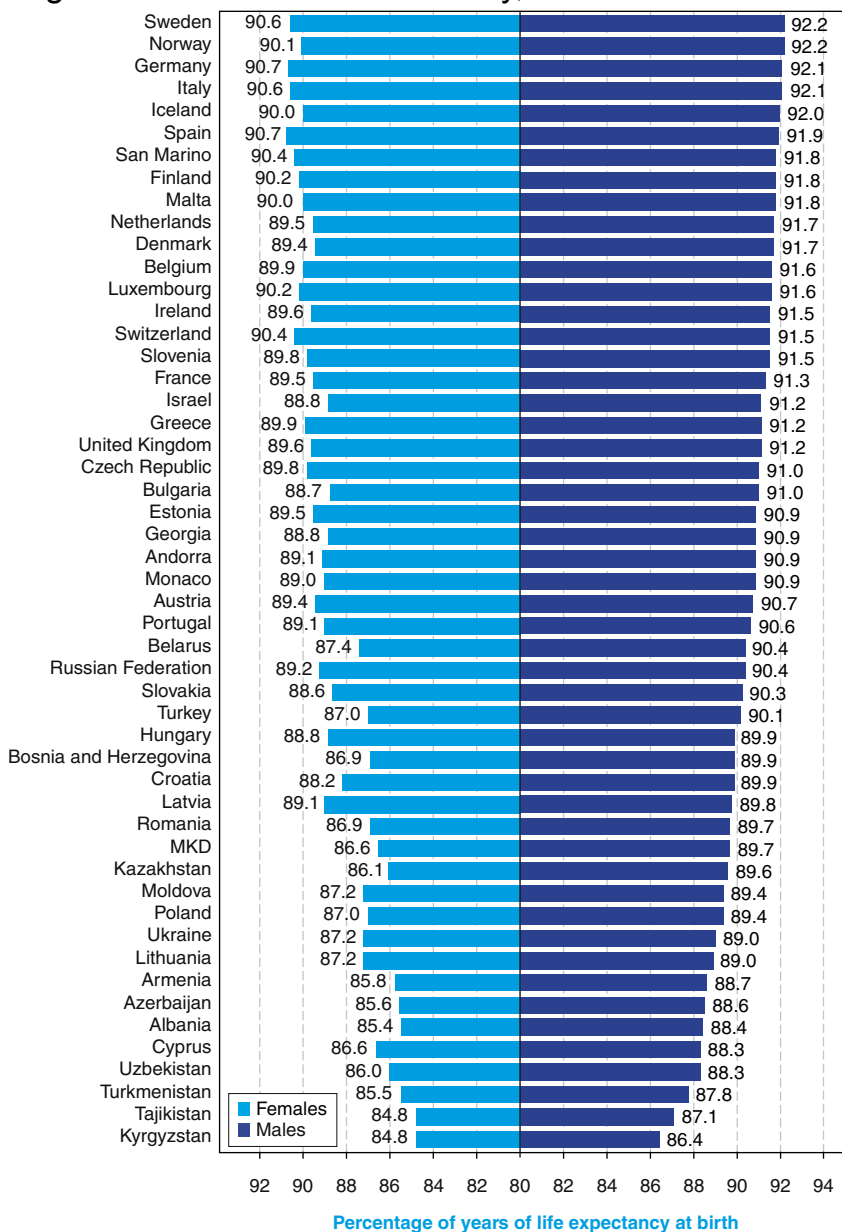
## Life expectancy at birth (years)



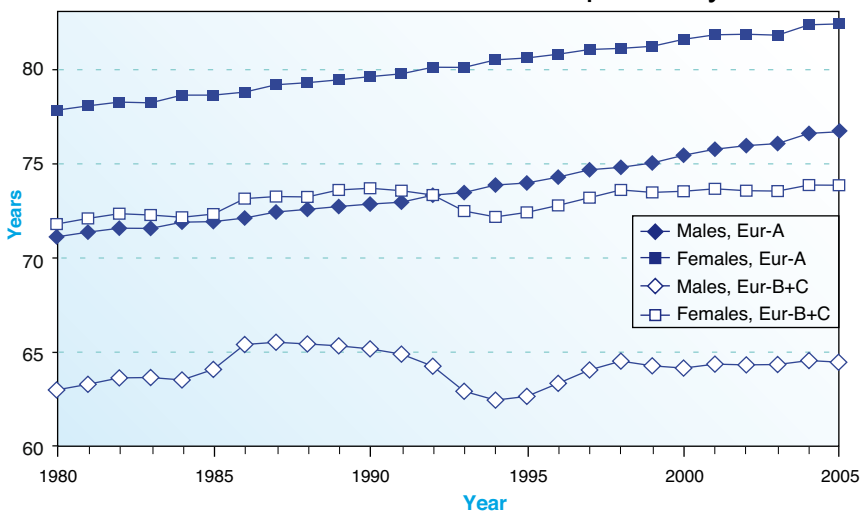
### Life expectancy at age 65 (years)



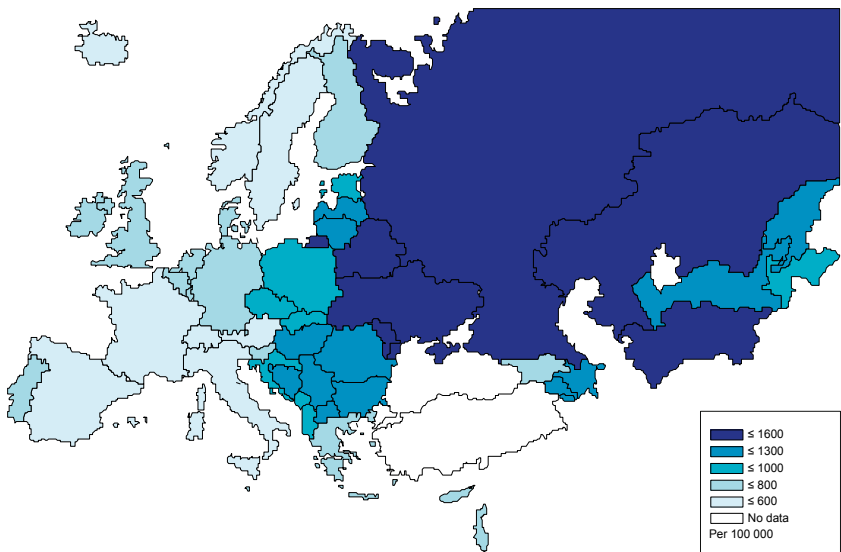
## Percentage of life lived in good health or free of disability, 2002



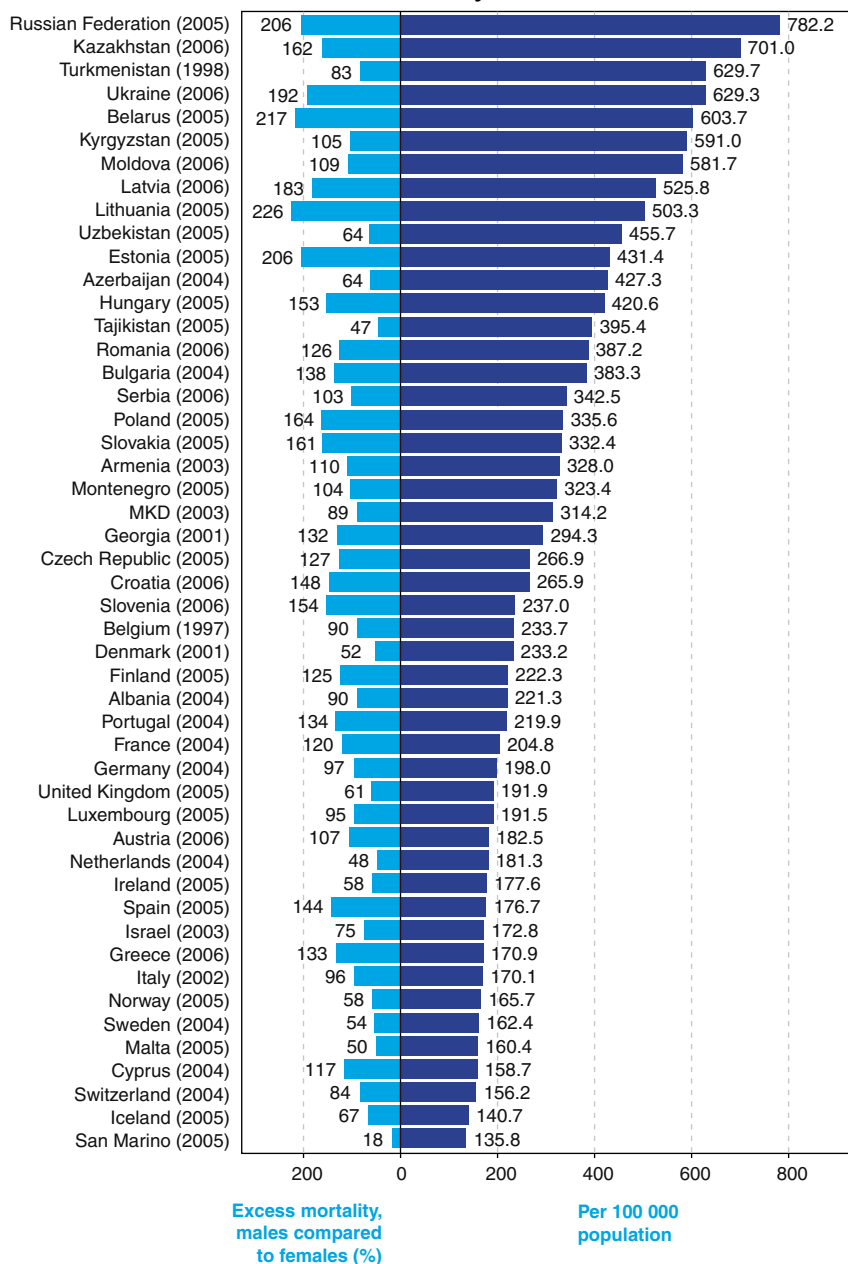
### Life expectancy at birth



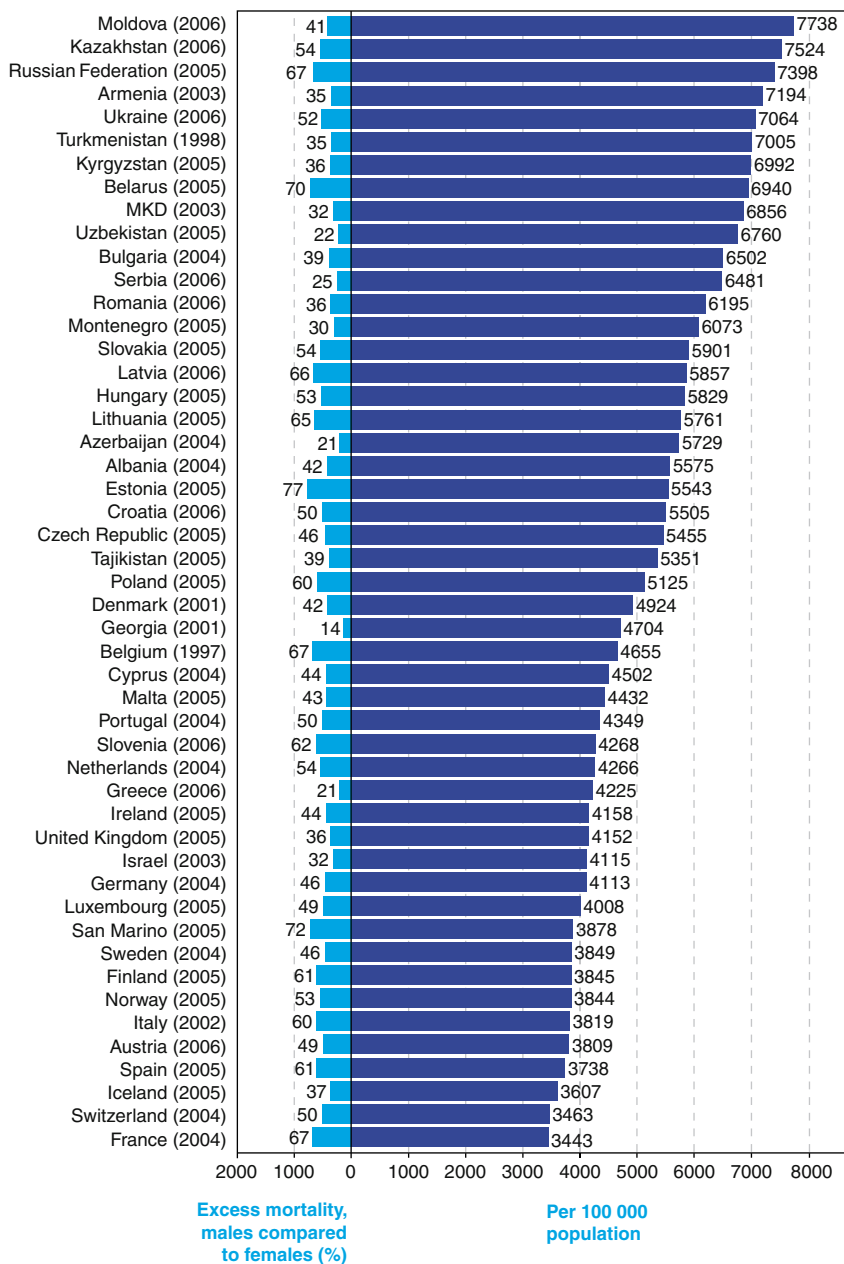
### Deaths from all causes



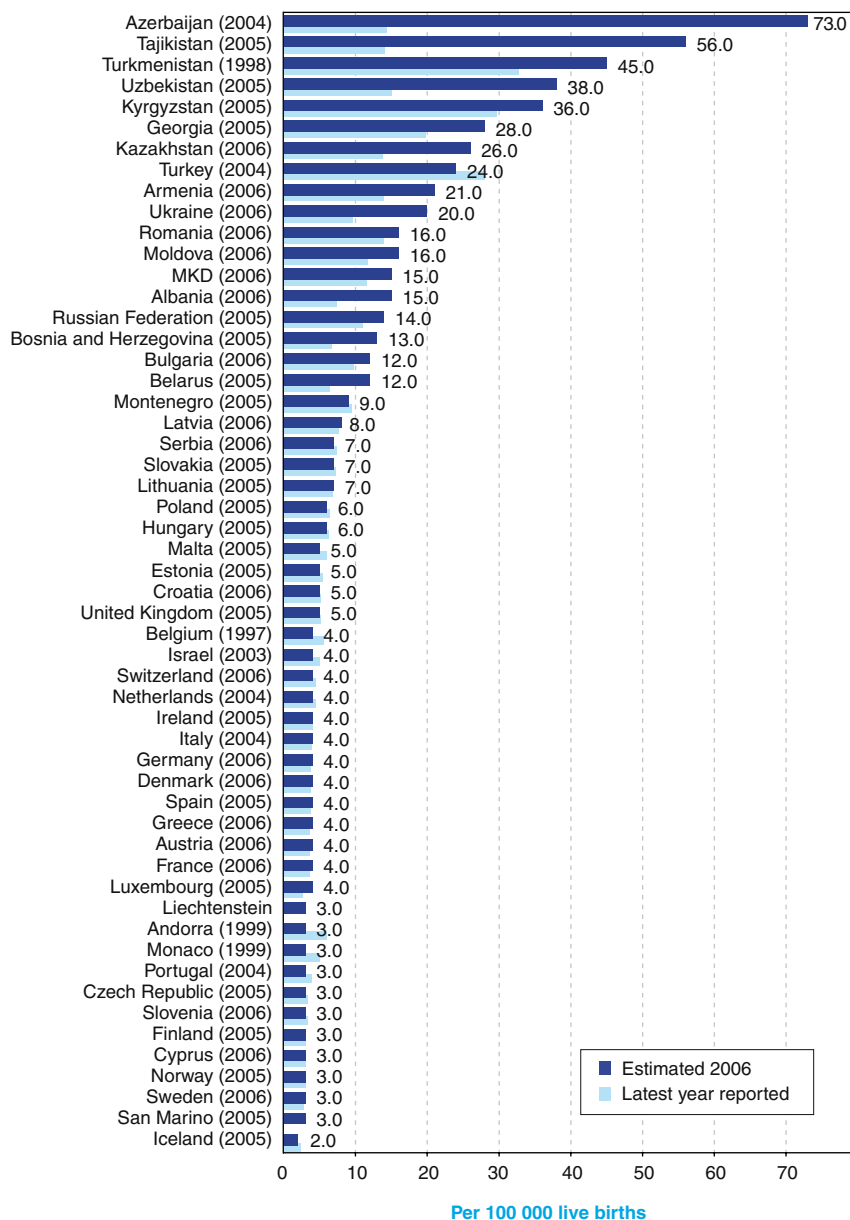
## Deaths from all causes, 0–64 years



## Deaths from all causes, 65+ years

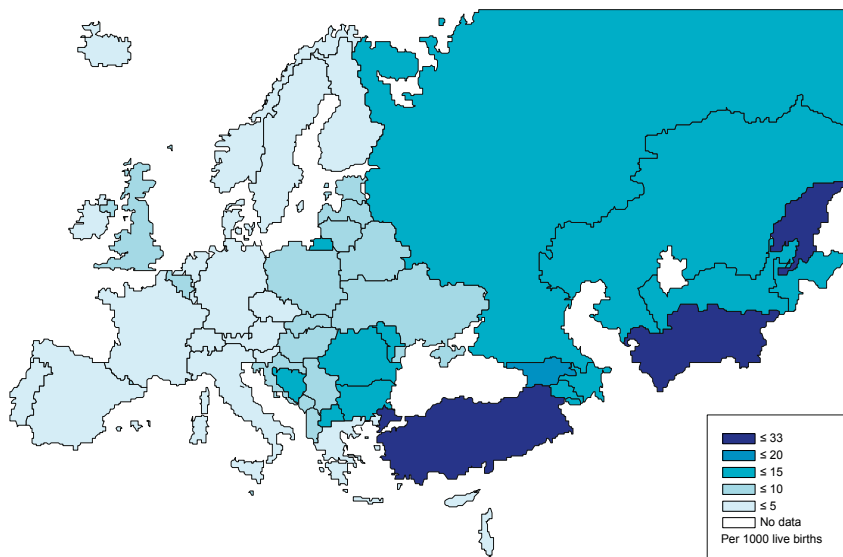


## Infant deaths

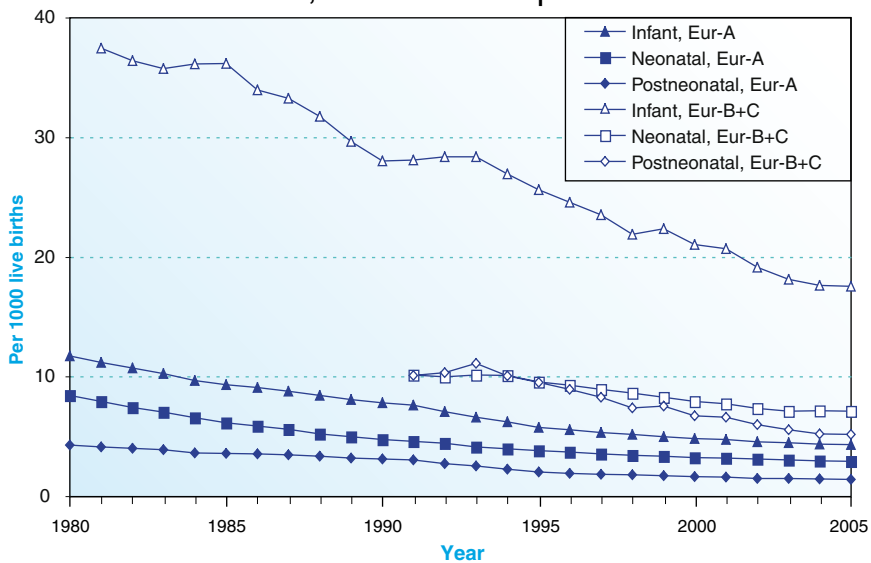




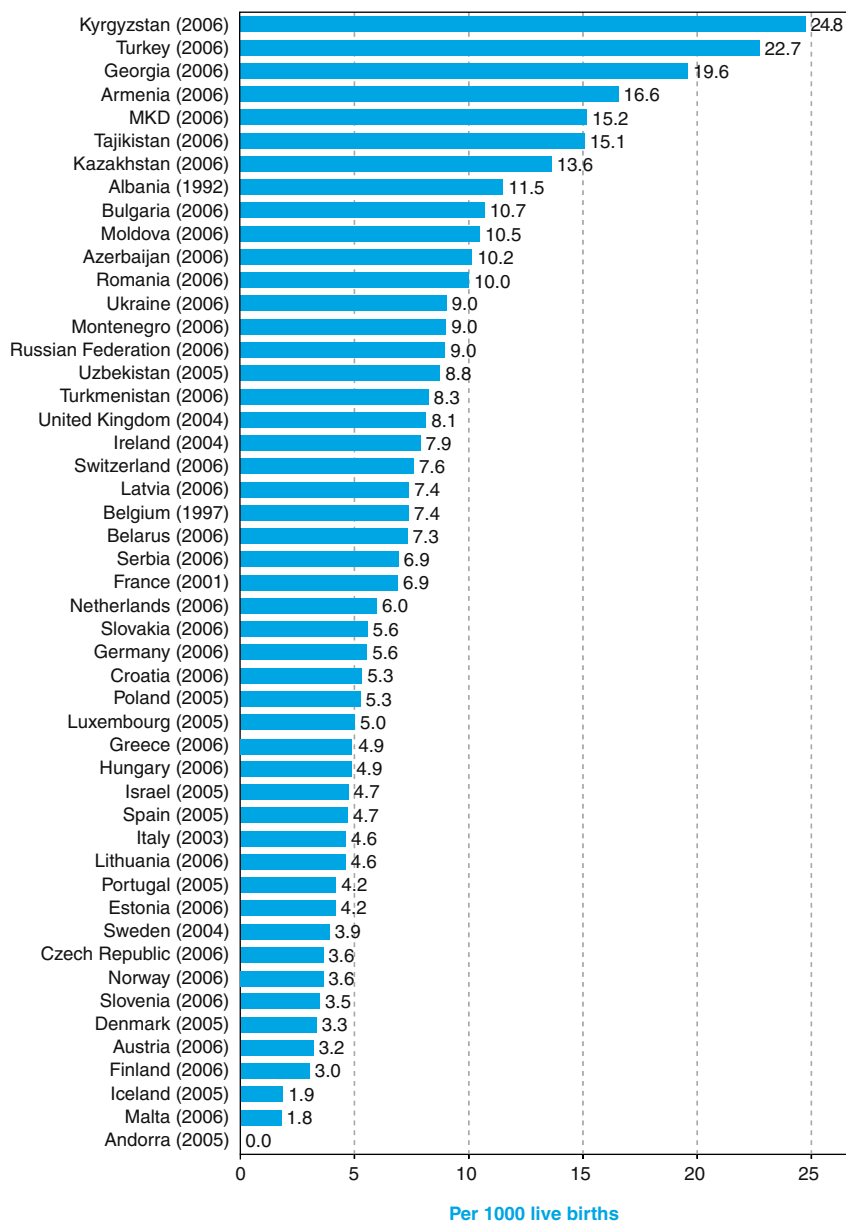
### Infant deaths



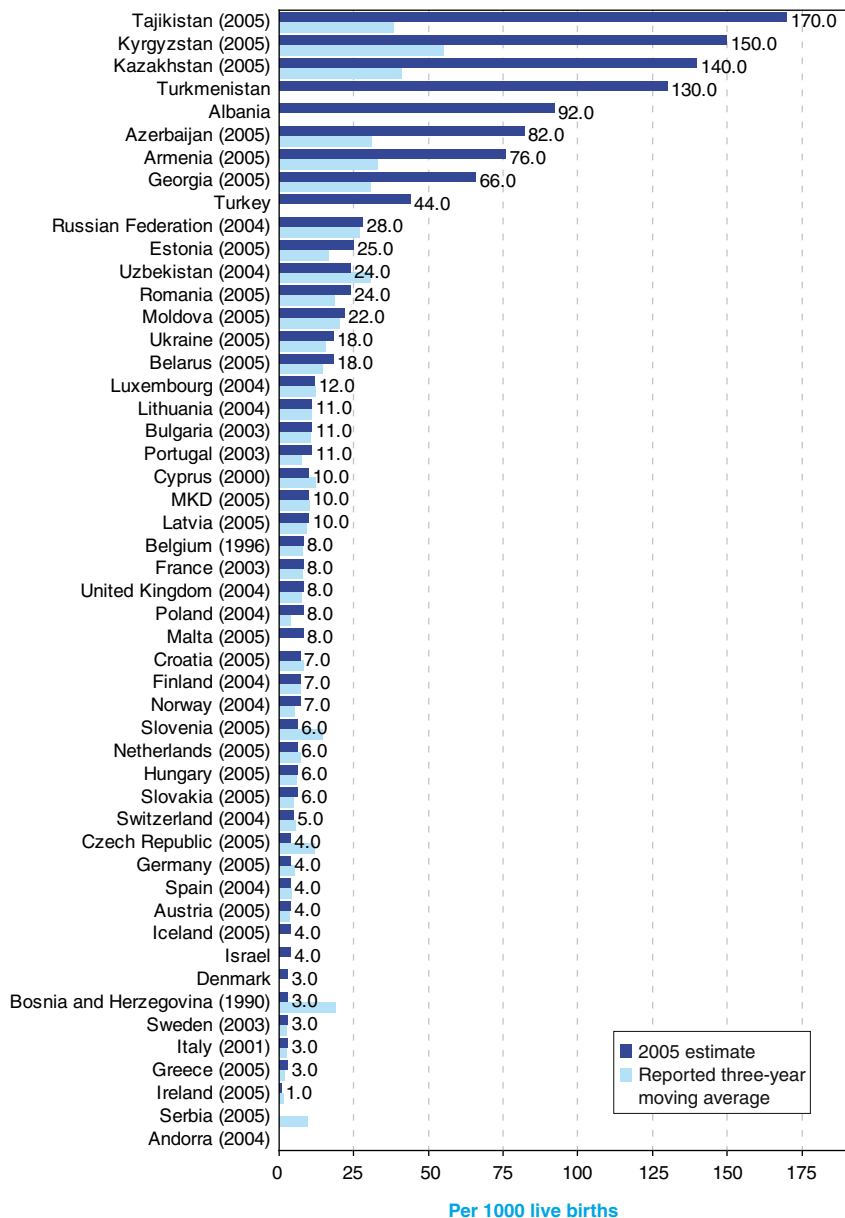
### Infant, neonatal and postneonatal deaths



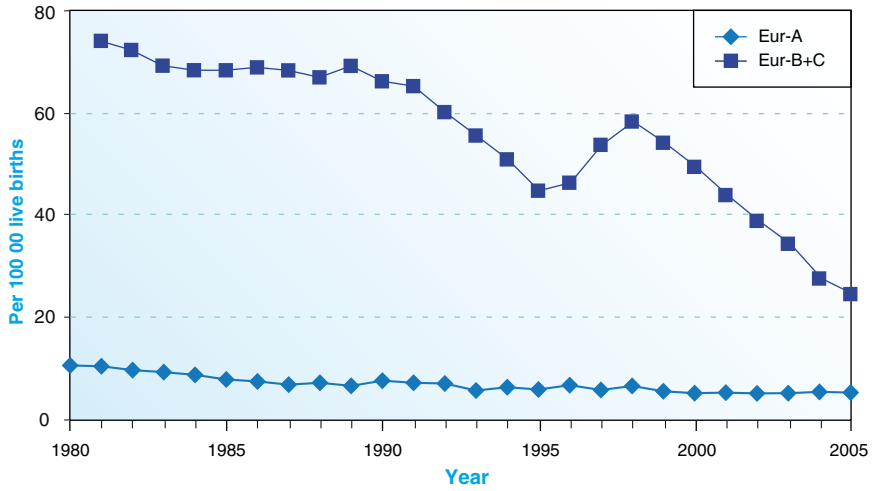
## Perinatal deaths



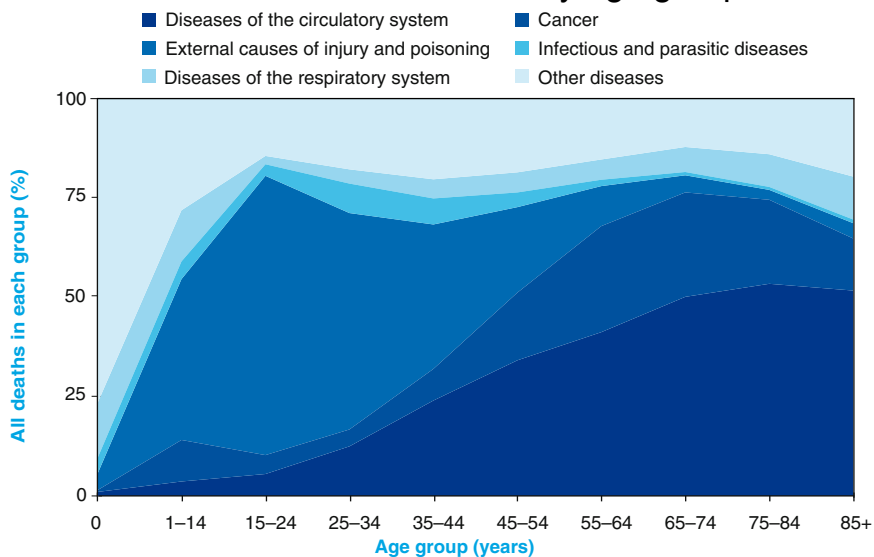
### Maternal deaths



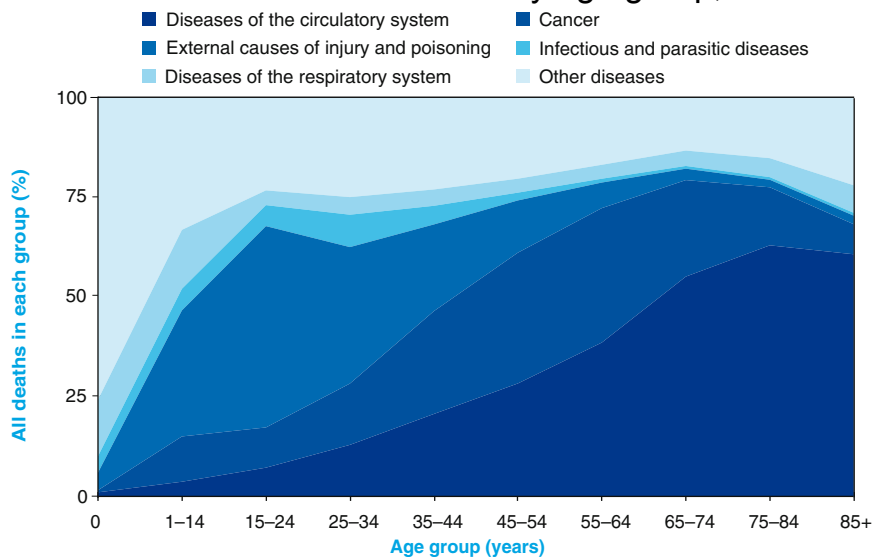
### Maternal deaths



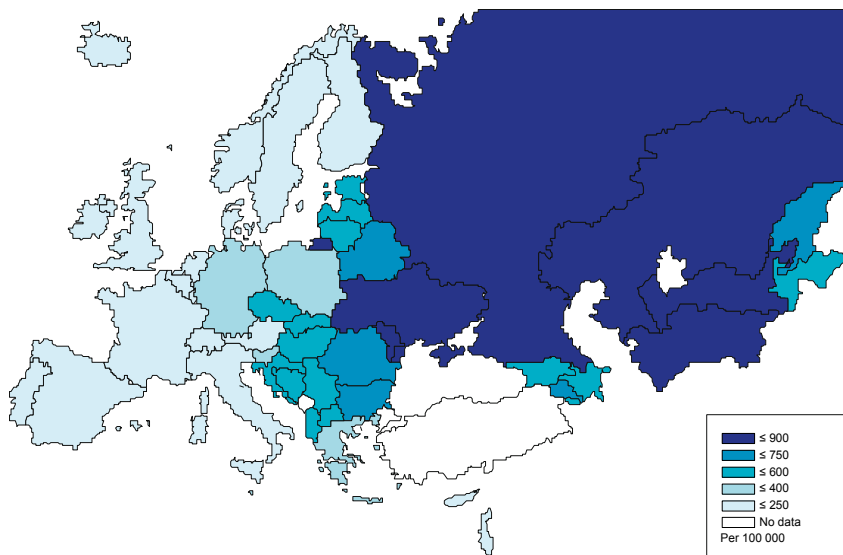
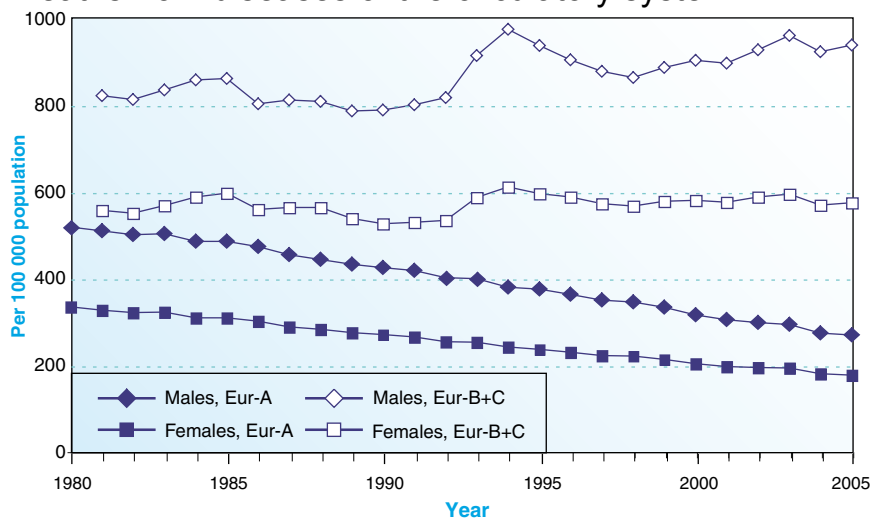
### Main causes of death by age group, males



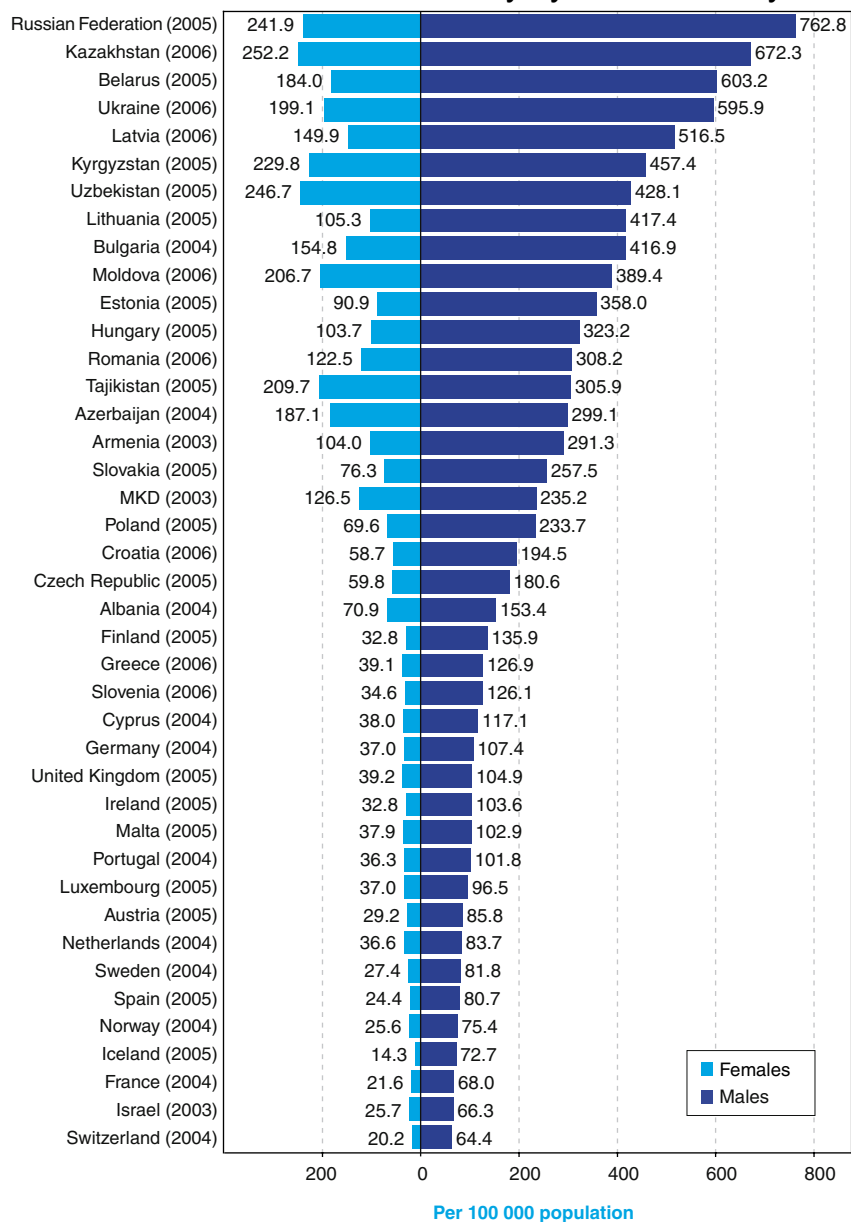
### Main causes of death by age group, females



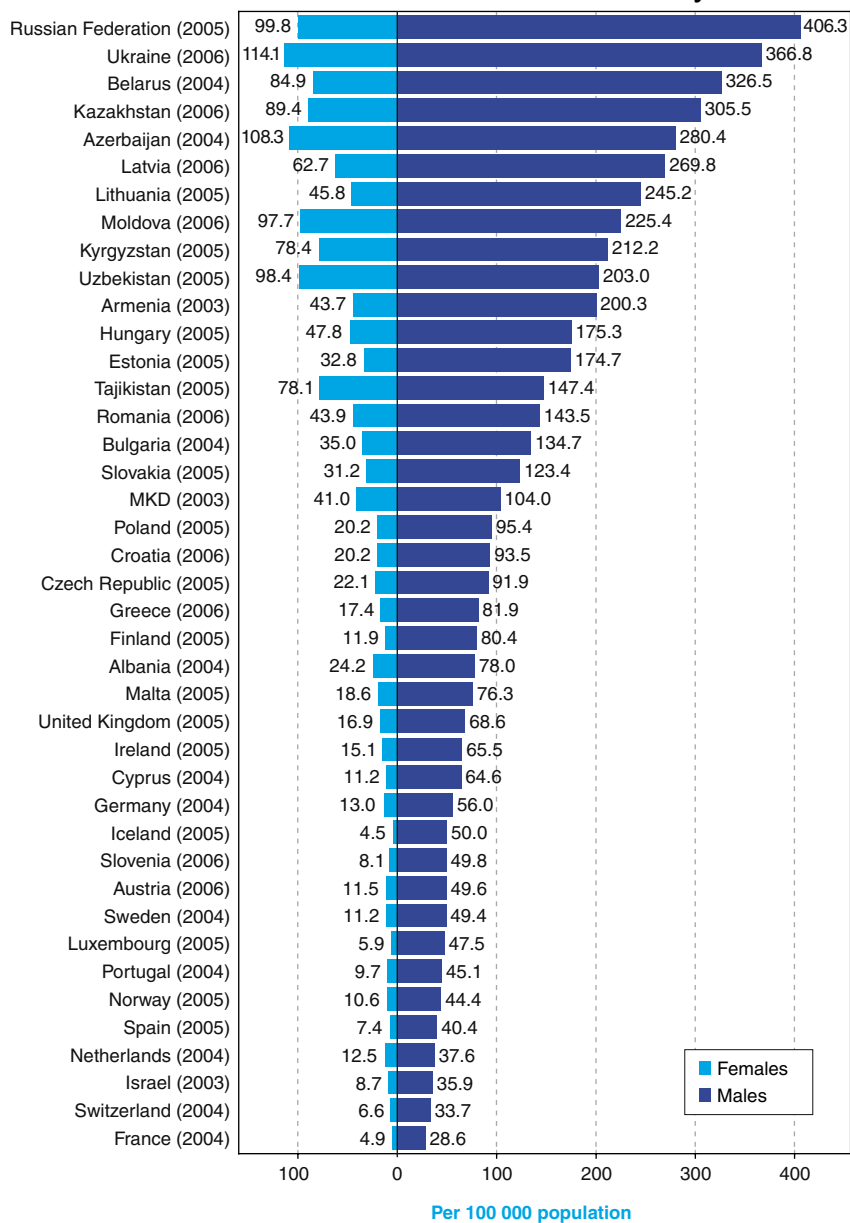
## Deaths from diseases of the circulatory system



## Deaths from diseases of the circulatory system, 25–64 years

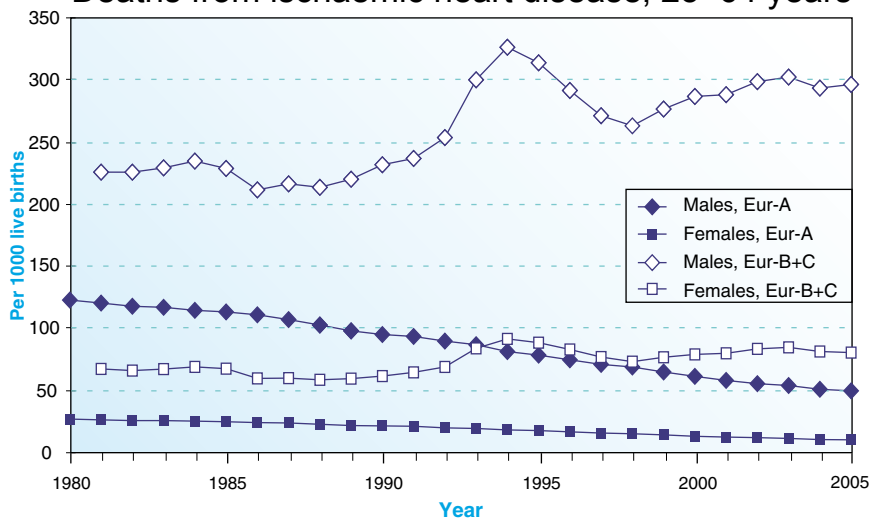


## Deaths from ischaemic heart disease, 25–64 years

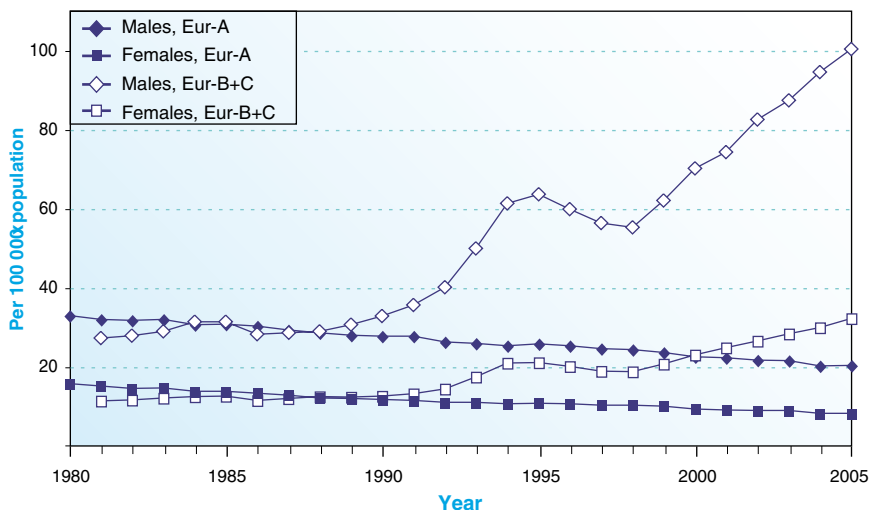




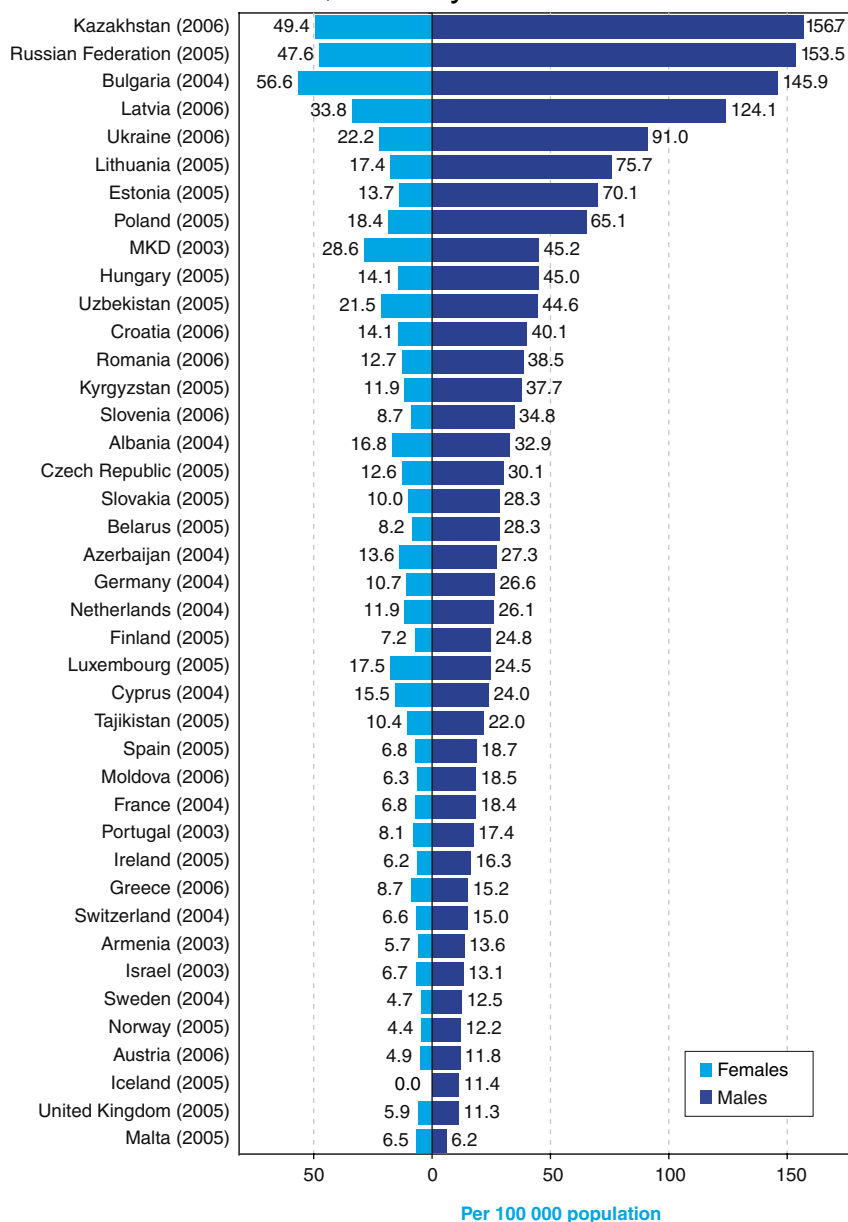
### Deaths from ischaemic heart disease, 25–64 years



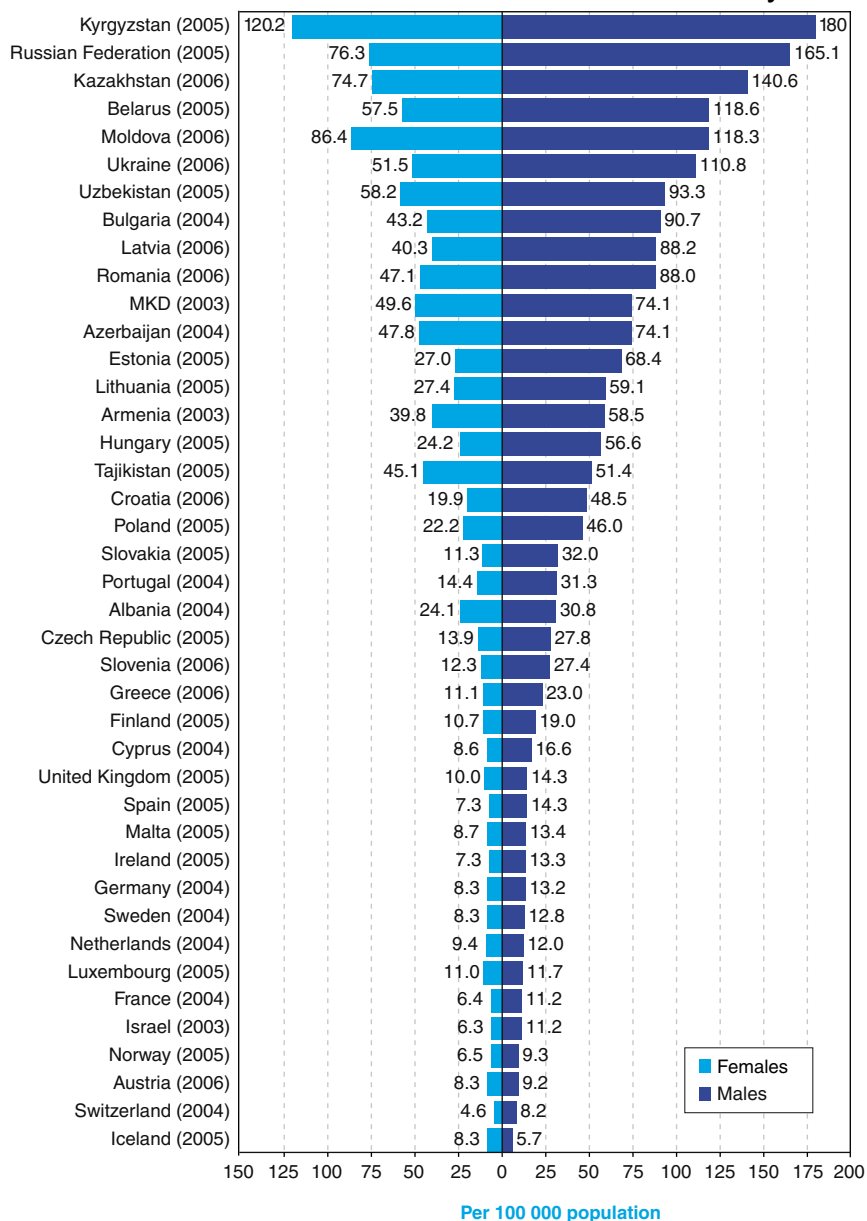
### Deaths from pulmonary and other heart diseases, 25–64 years



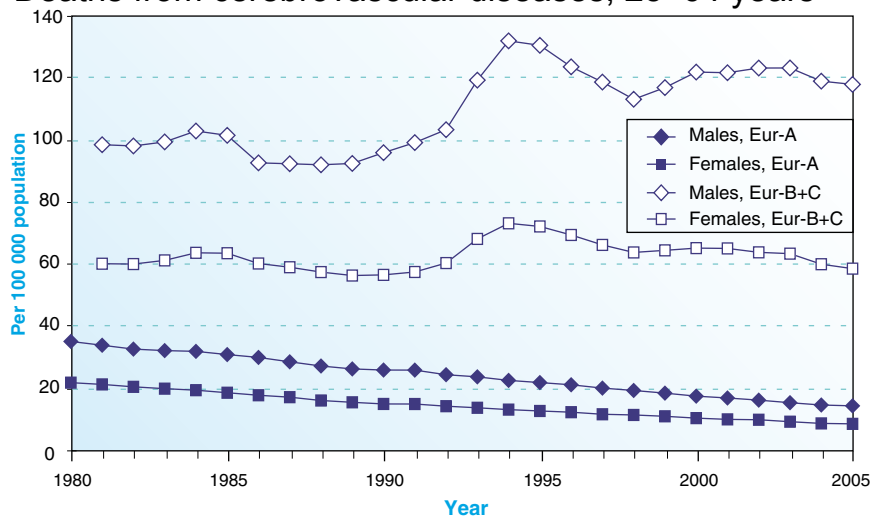
## Deaths from pulmonary and other heart diseases, 25–64 years



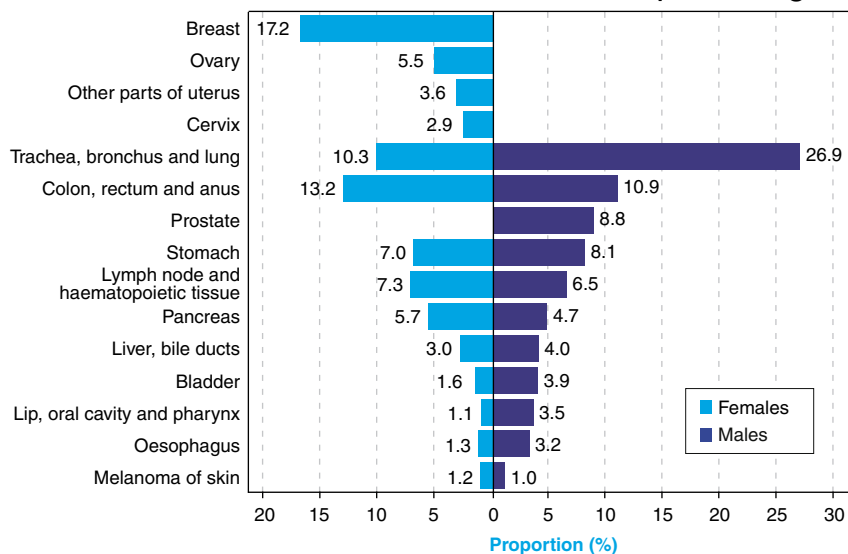
## Deaths from cerebrovascular diseases, 25–64 years



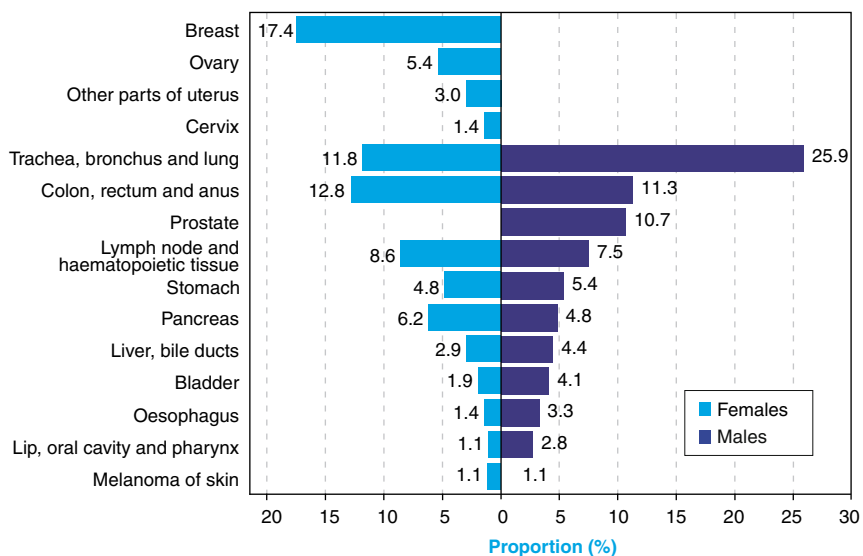
## Deaths from cerebrovascular diseases, 25–64 years



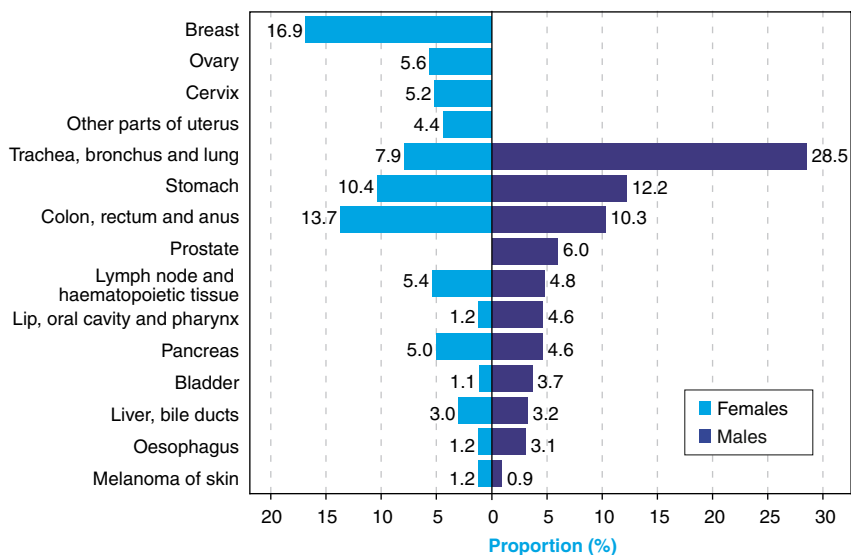
## Deaths from selected cancers, WHO European Region



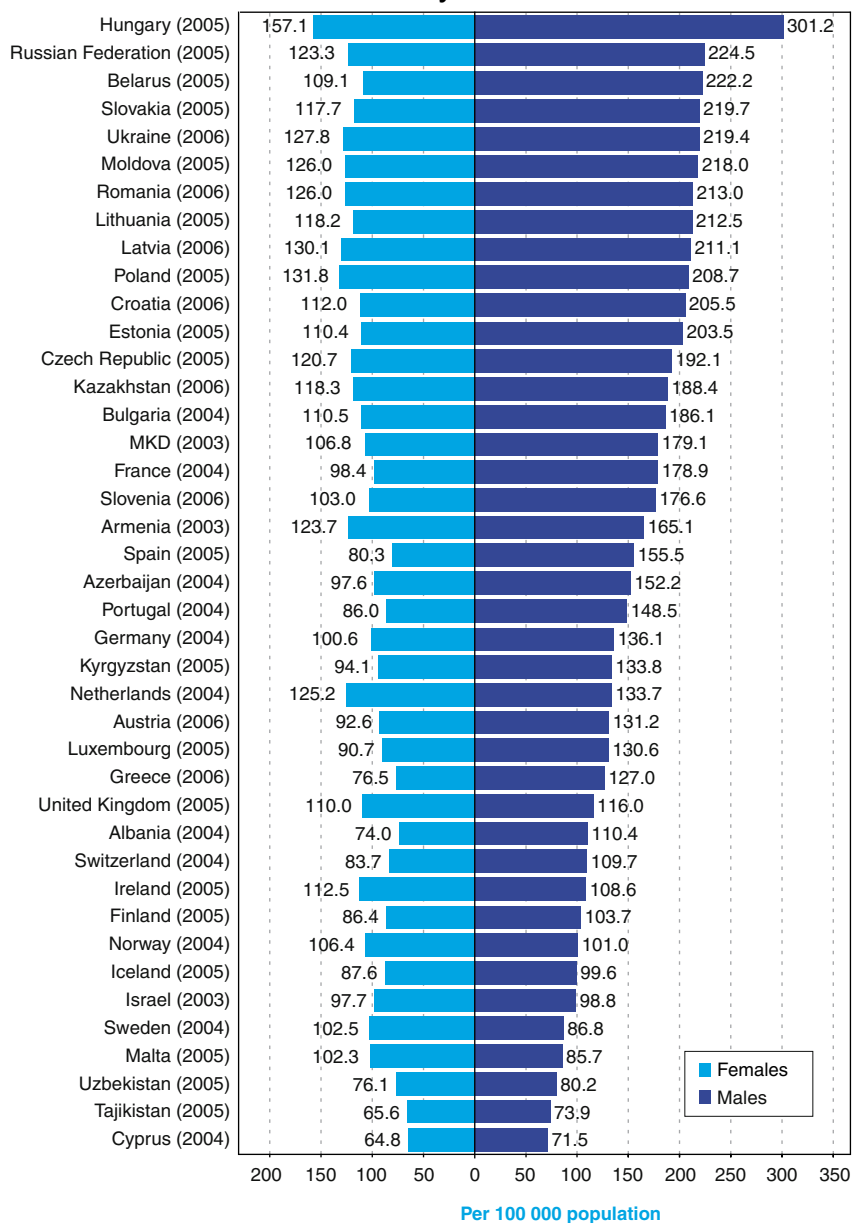
### Deaths from selected cancers, Eur-A



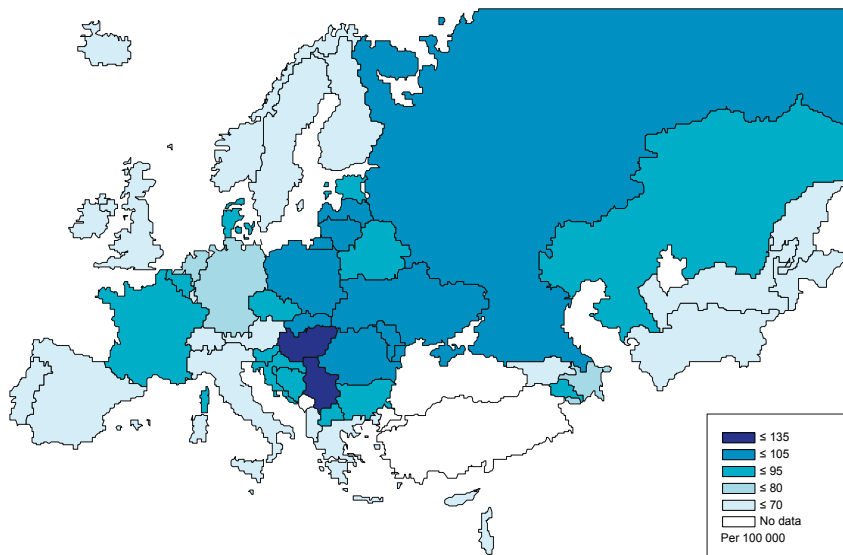
### Deaths from selected cancers, Eur-B+C



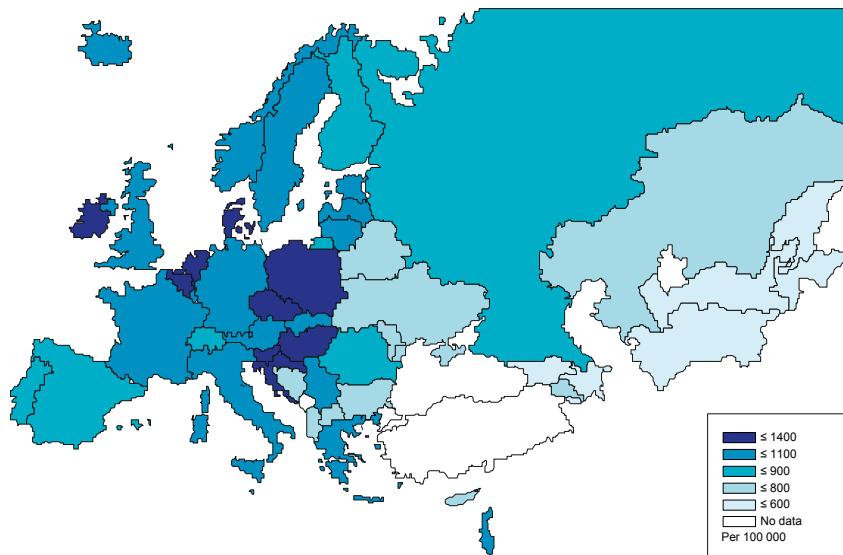
## Deaths from cancer, 25–64 years



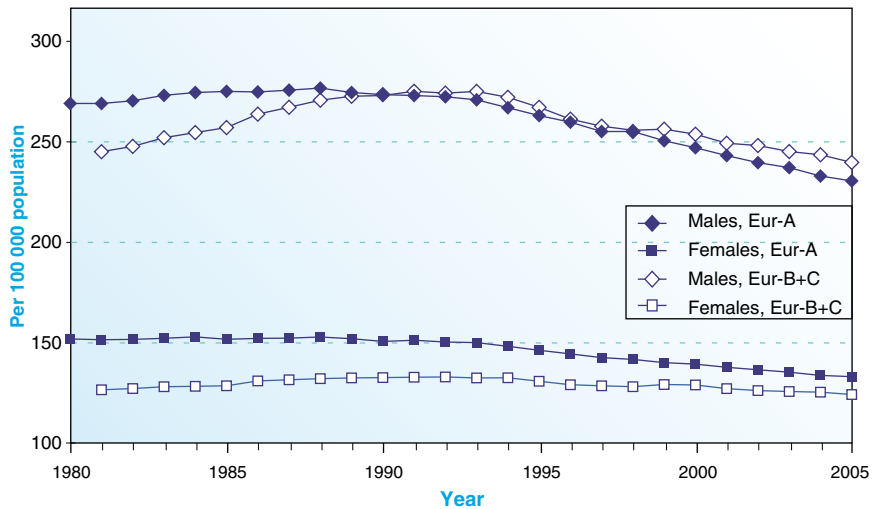
### Deaths from cancer, 0–64 years



### Deaths from cancer, 65+ years

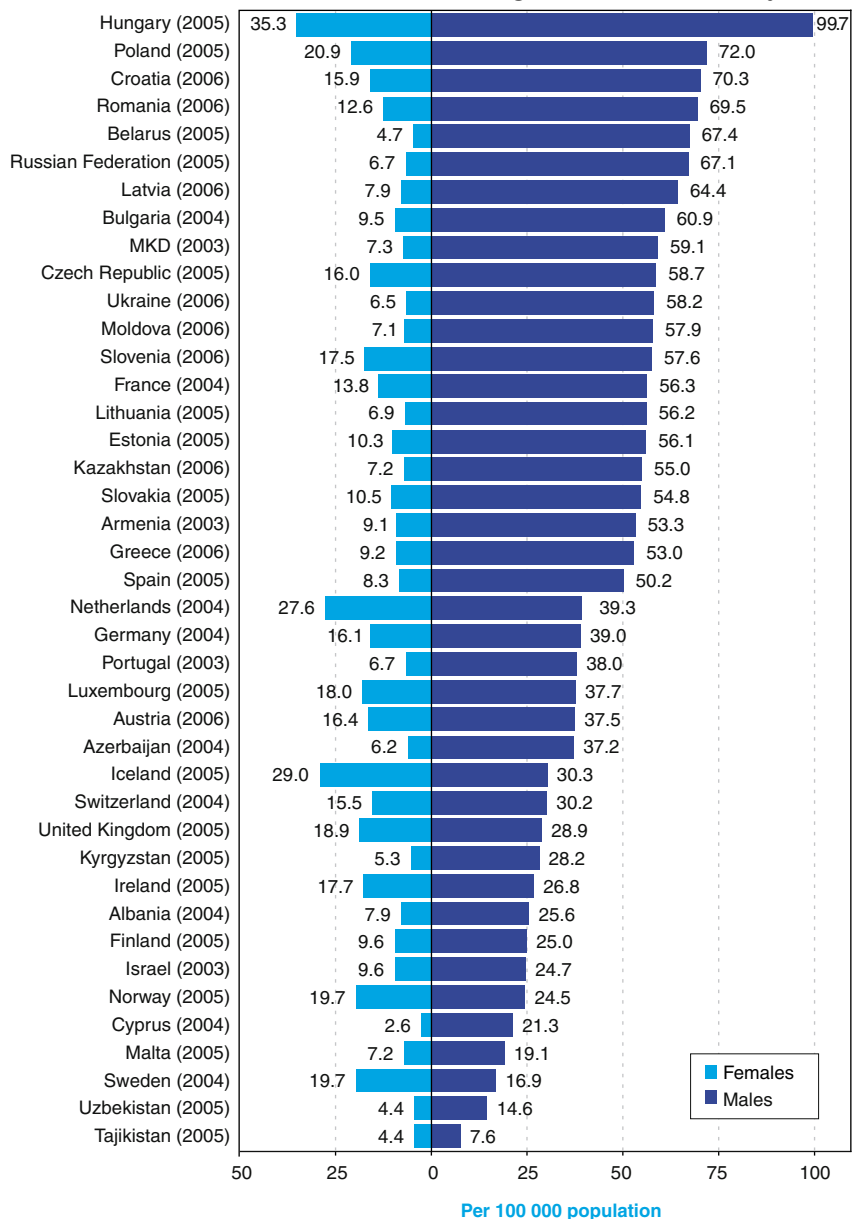


### Deaths from cancer

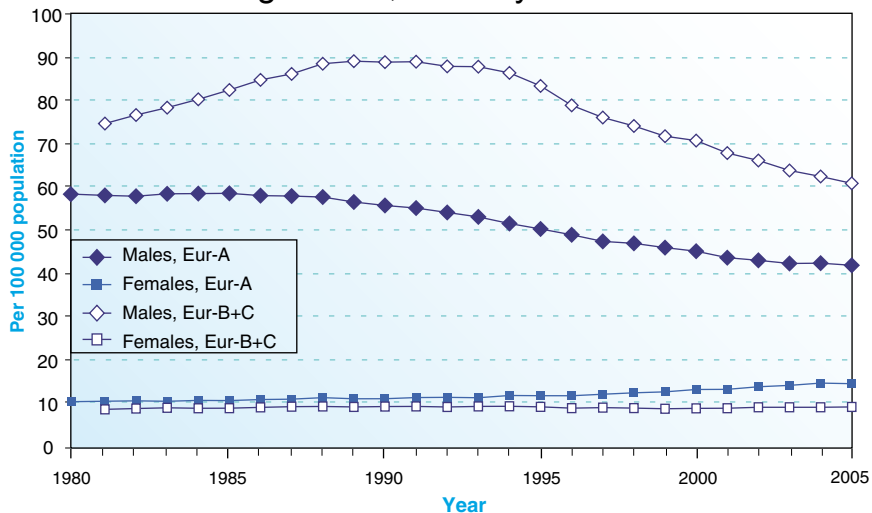




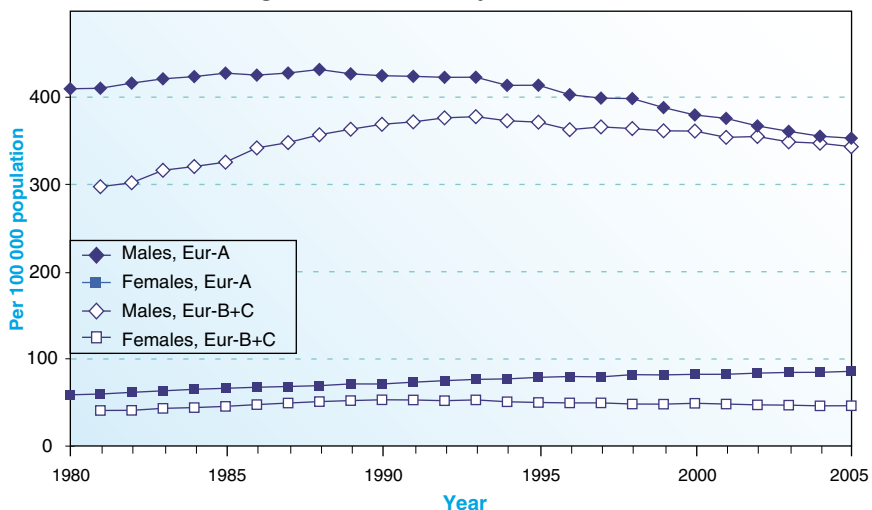
### Deaths from lung cancer, 25–64 years



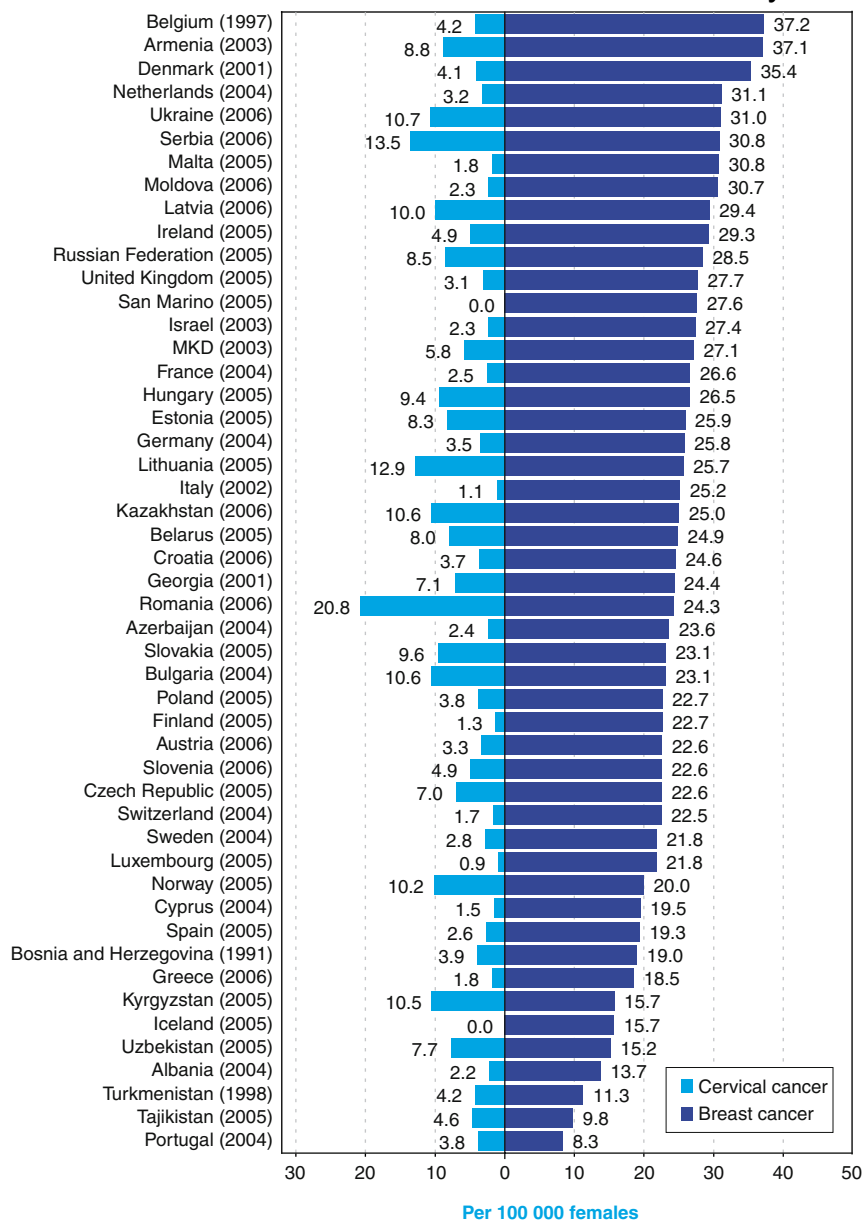
### Deaths from lung cancer, 25–64 years



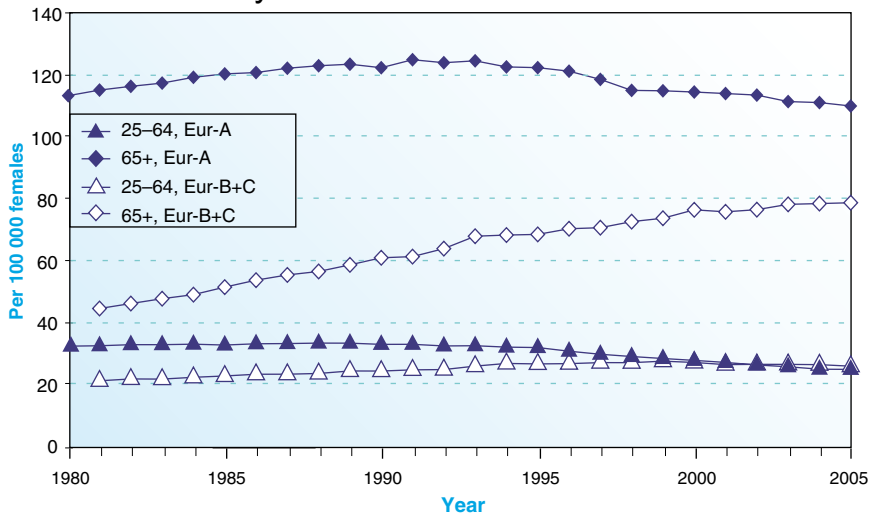
### Deaths from lung cancer, 65+ years



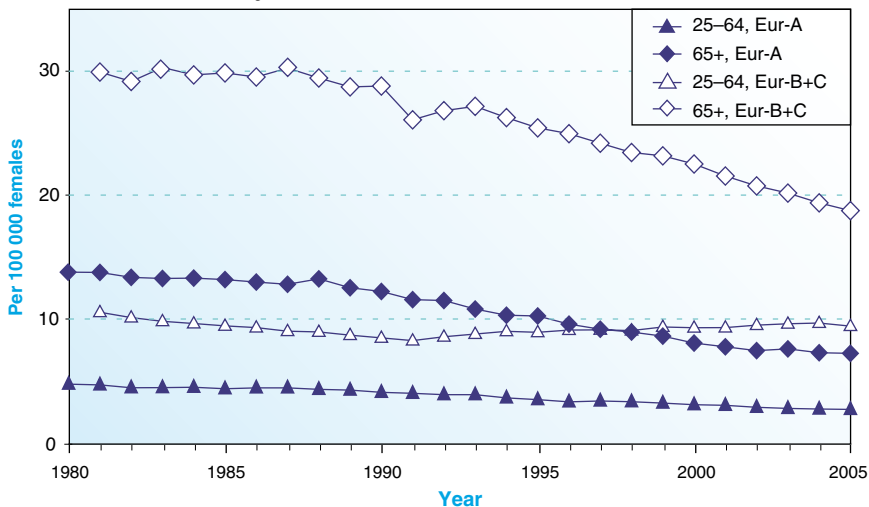
## Deaths from female breast cancer and cervical cancer, 25–64 years



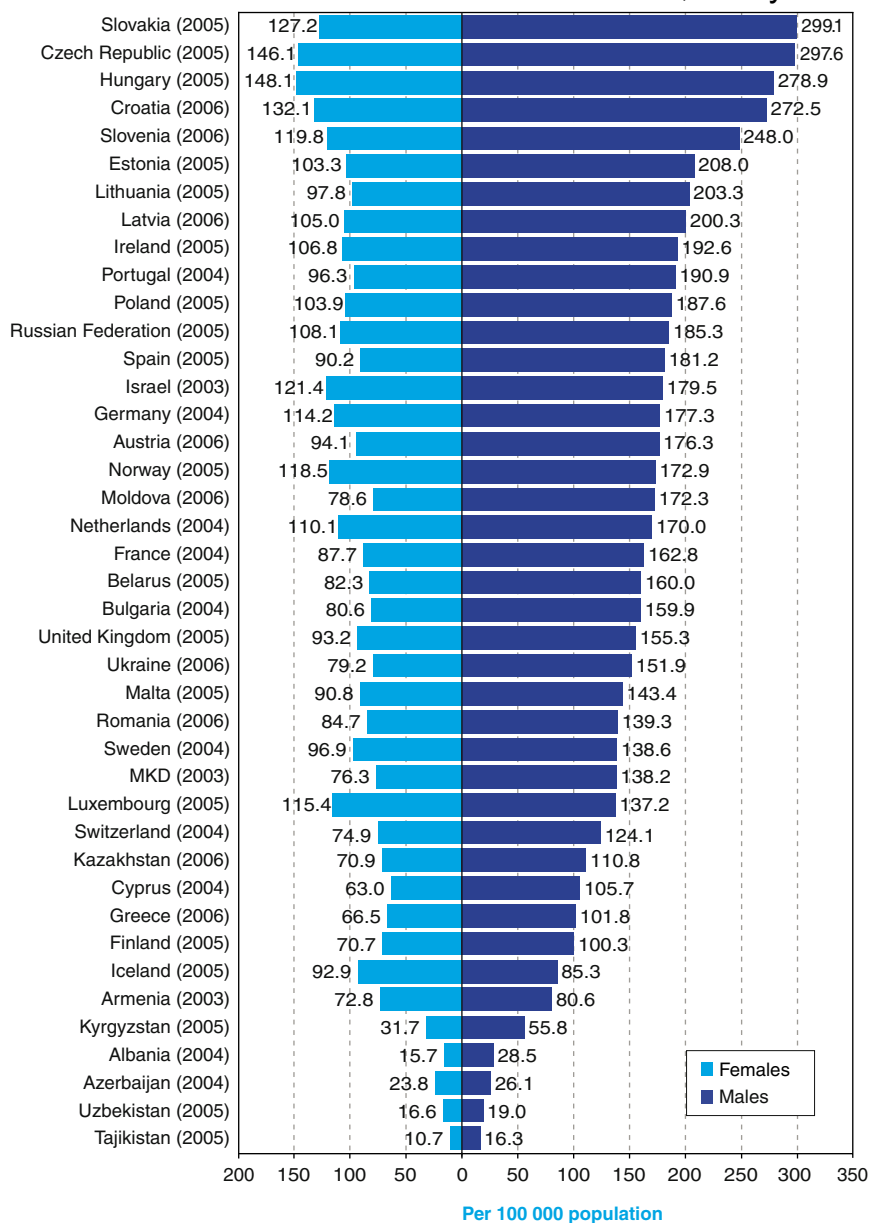
### Deaths from female breast cancer, 25–64 and 65+ years



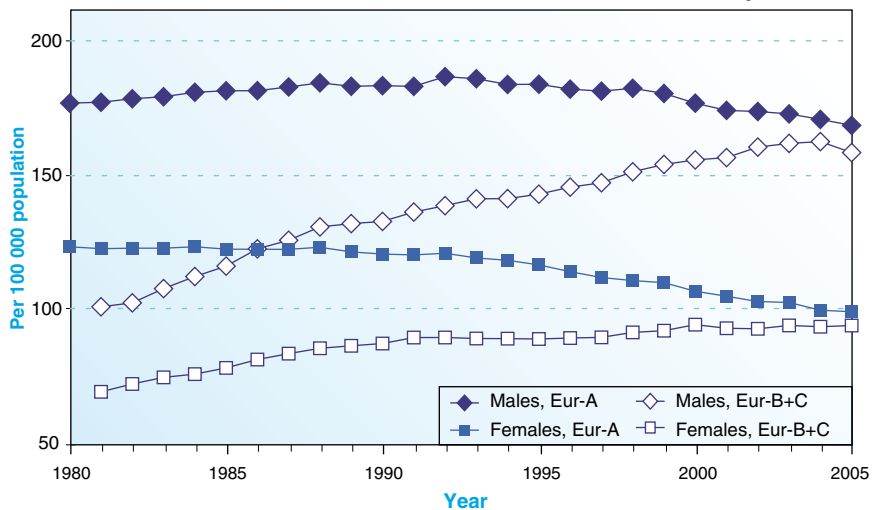
### Deaths from cervical cancer, 25–64 and 65+ years



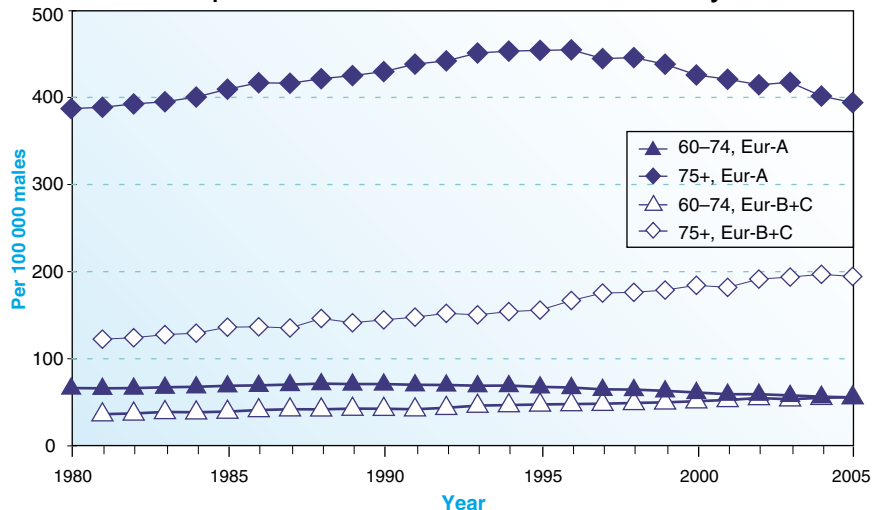
## Deaths from cancer of the colon and anus, 65+ years



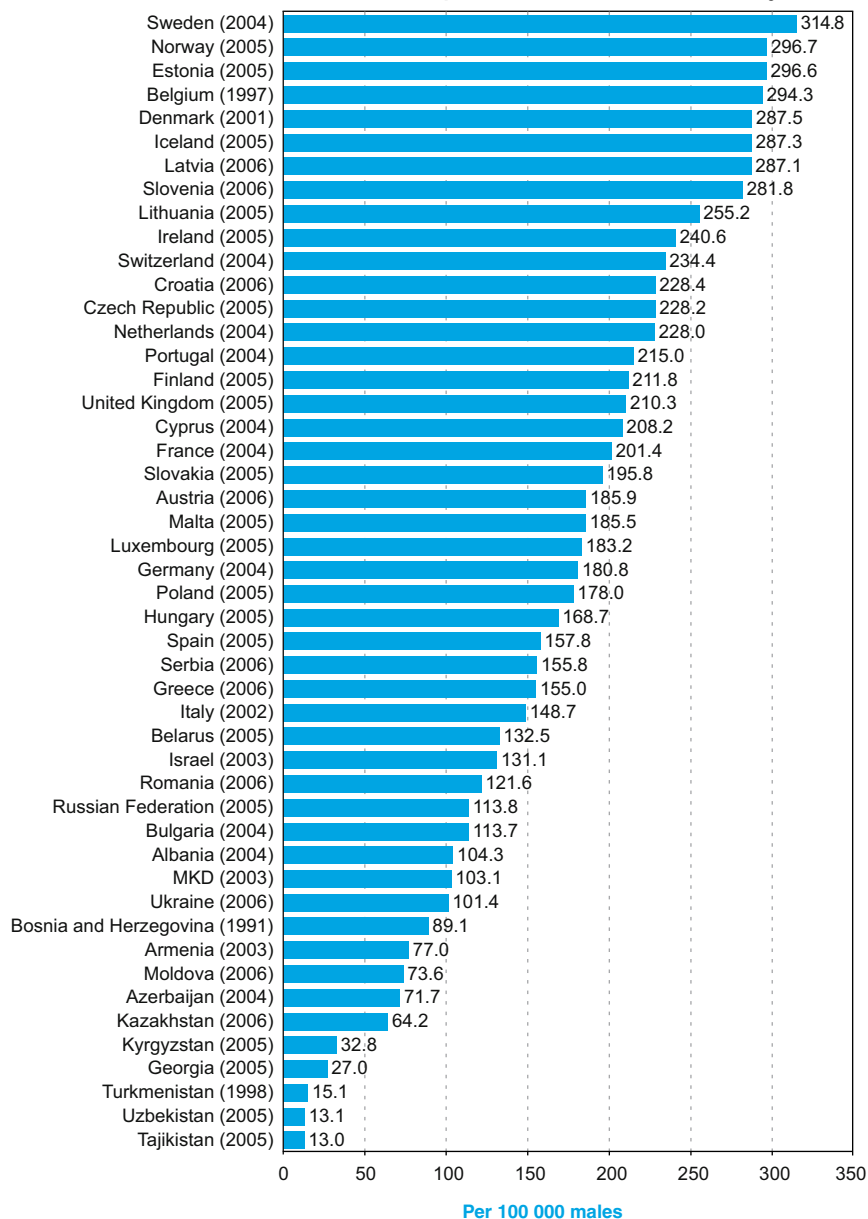
### Deaths from cancer of the colon and anus, 65+ years



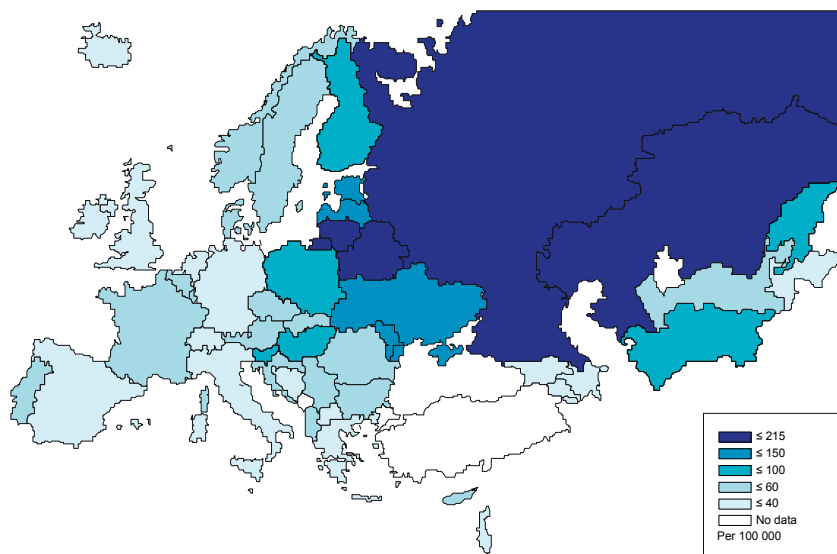
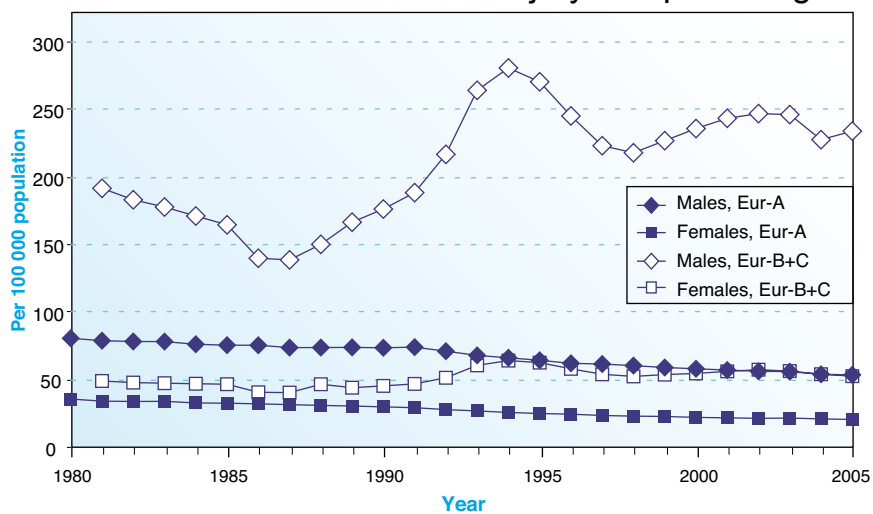
### Deaths from prostate cancer, 60–74 and 75+ years



## Deaths from prostate cancer, 65+ years

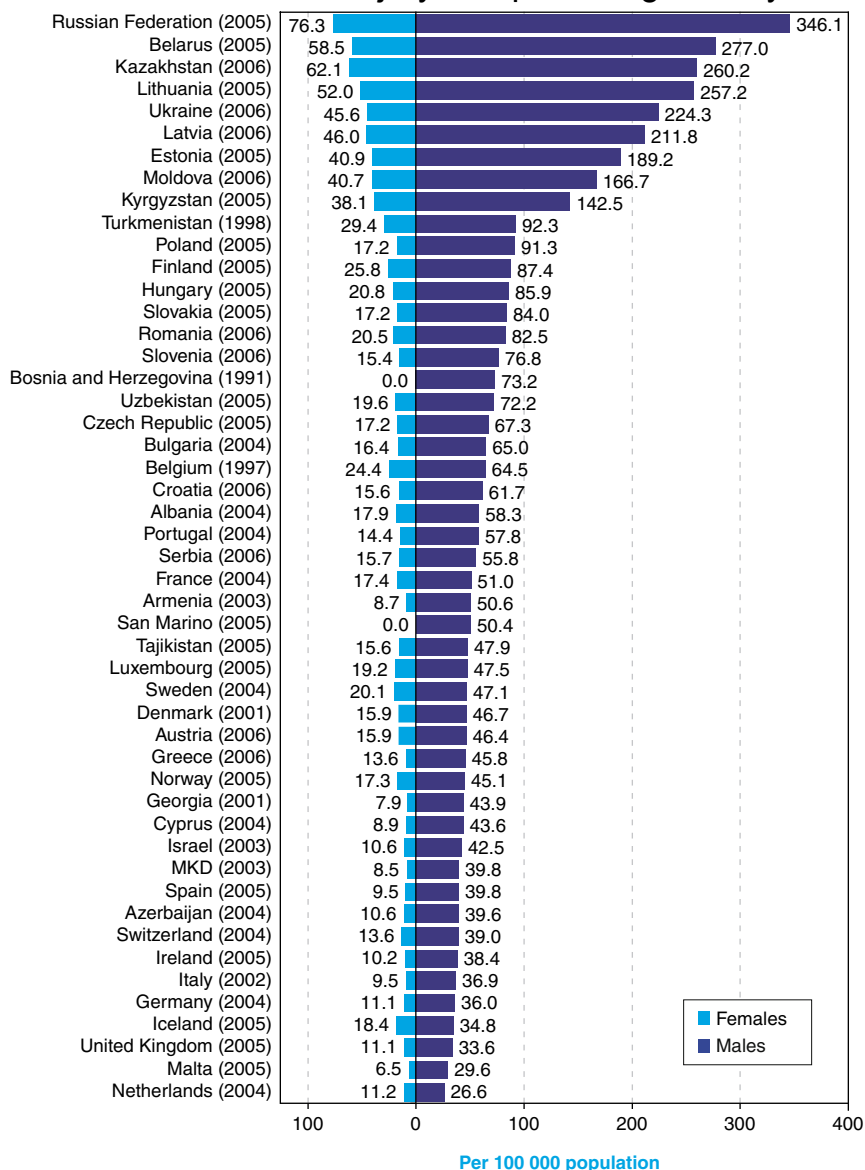


## Deaths from external causes of injury and poisoning

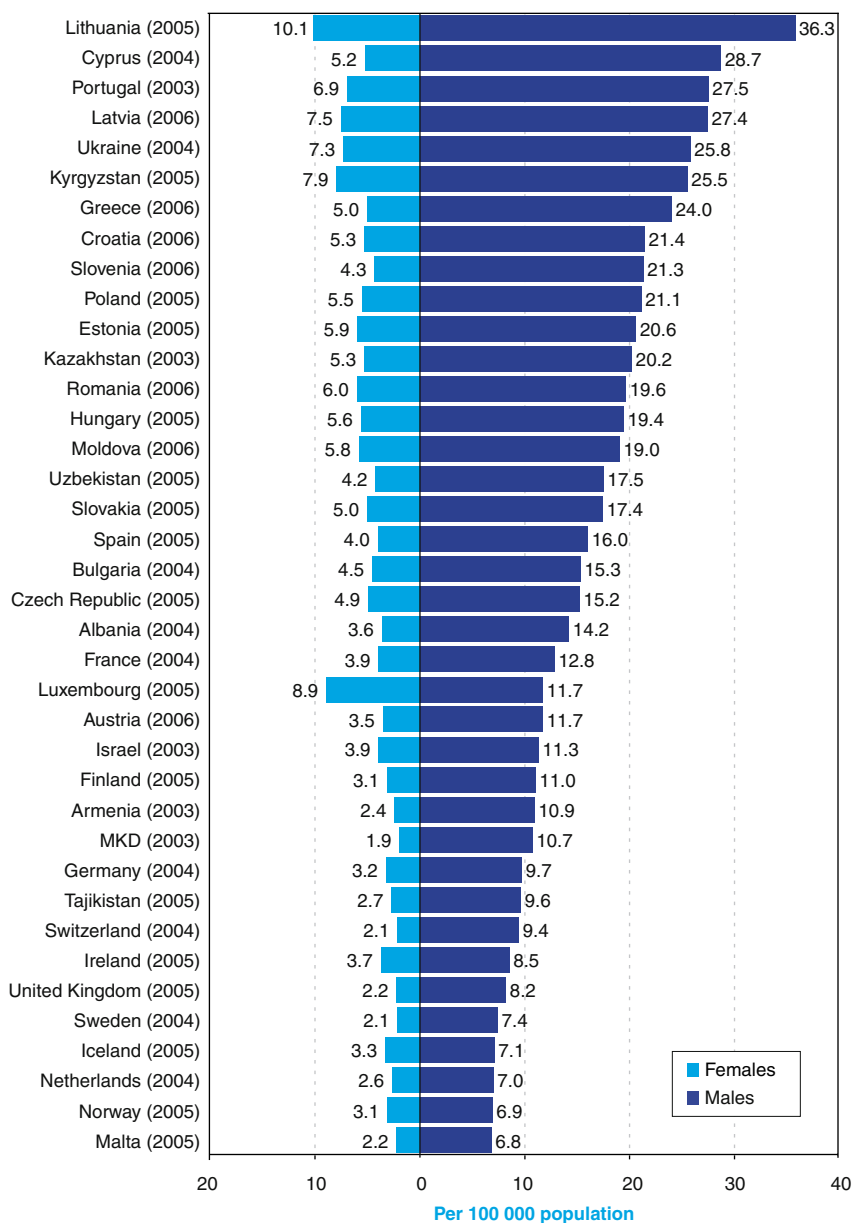




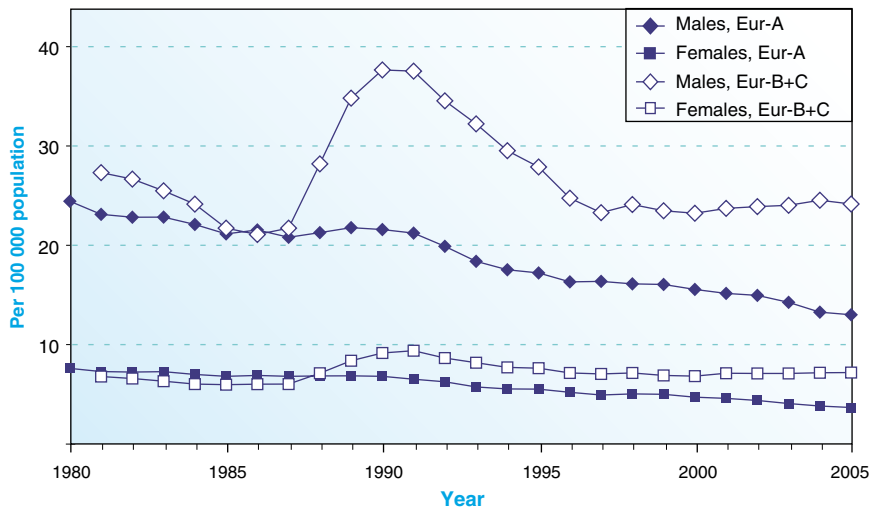
## Deaths from external causes of injury and poisoning, 0–64 years



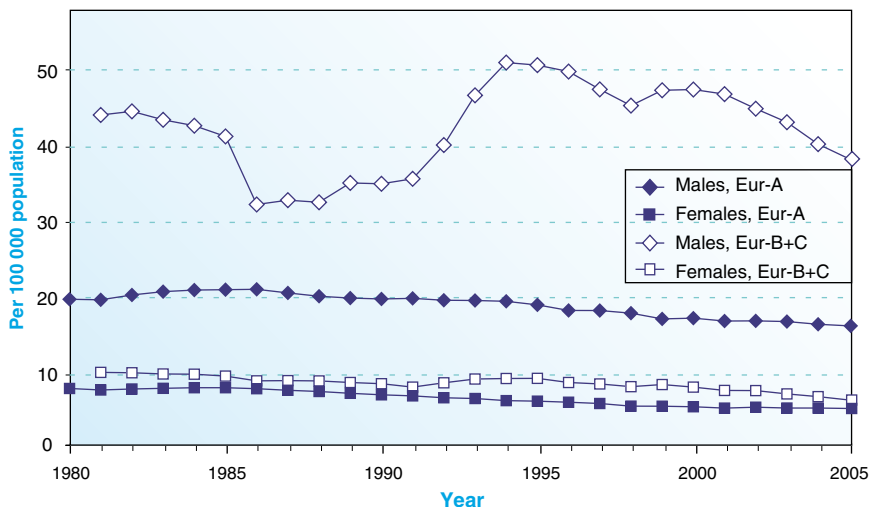
## Deaths from motor vehicle traffic accidents



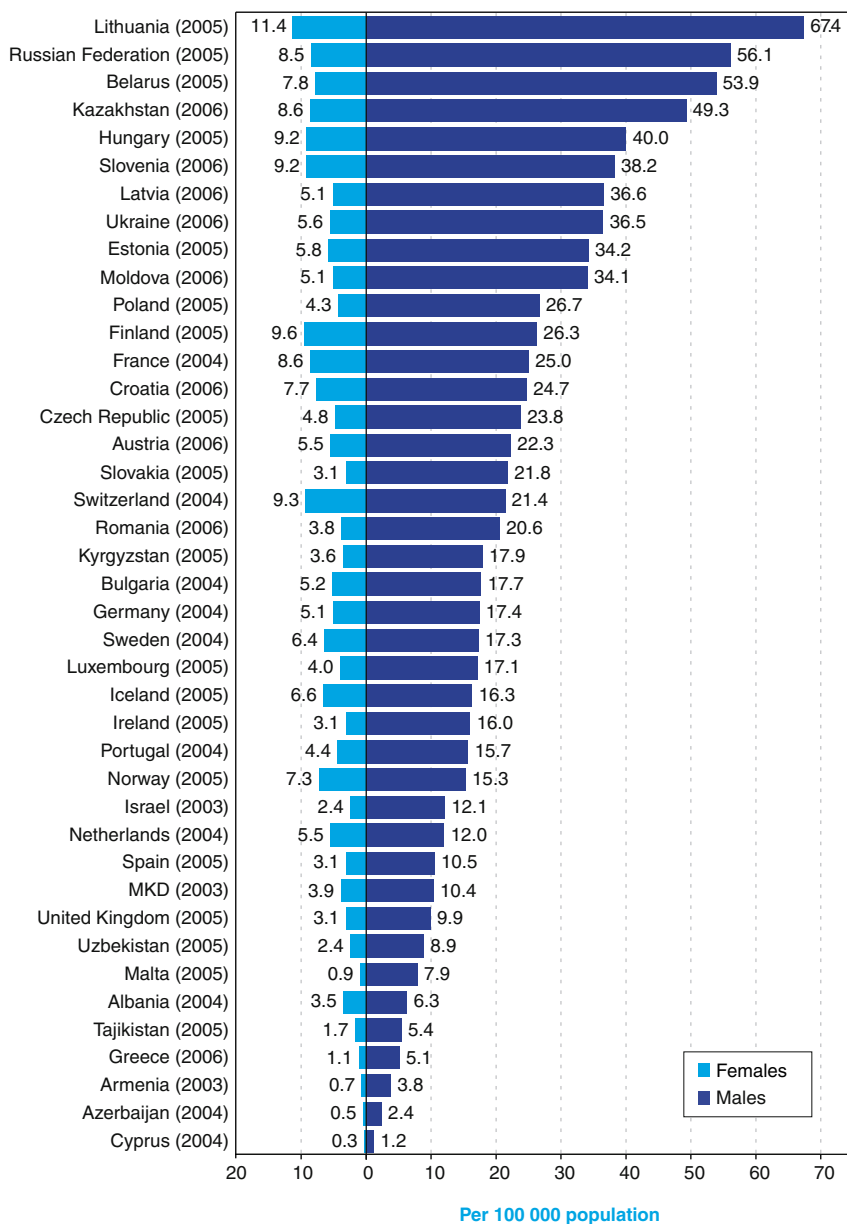
### Deaths from motor vehicle traffic accidents



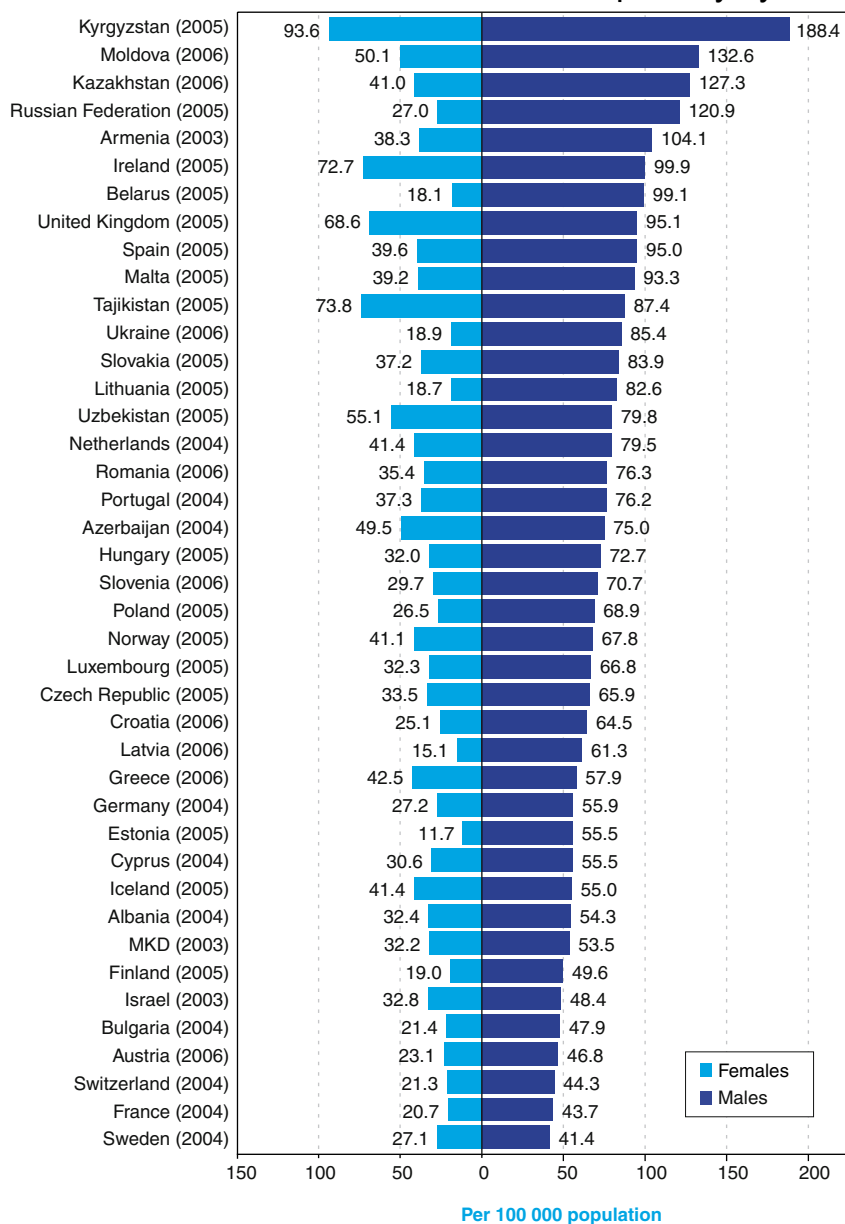
### Deaths from suicide



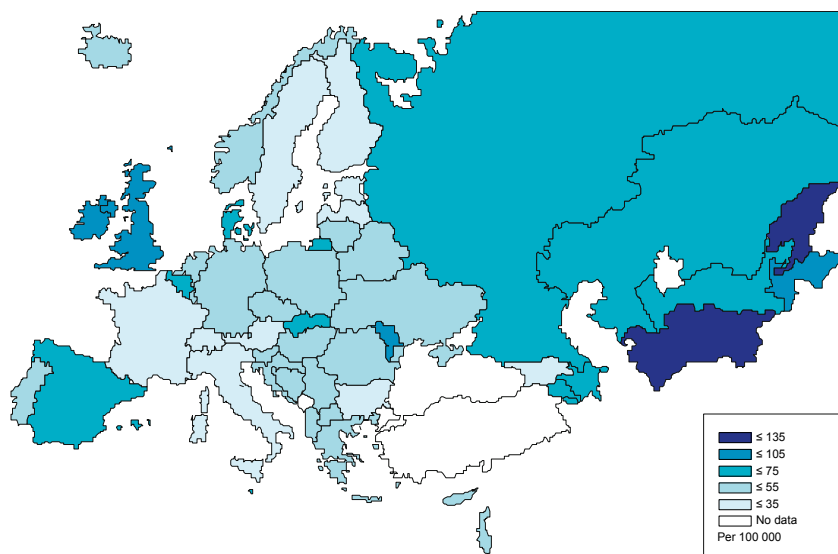
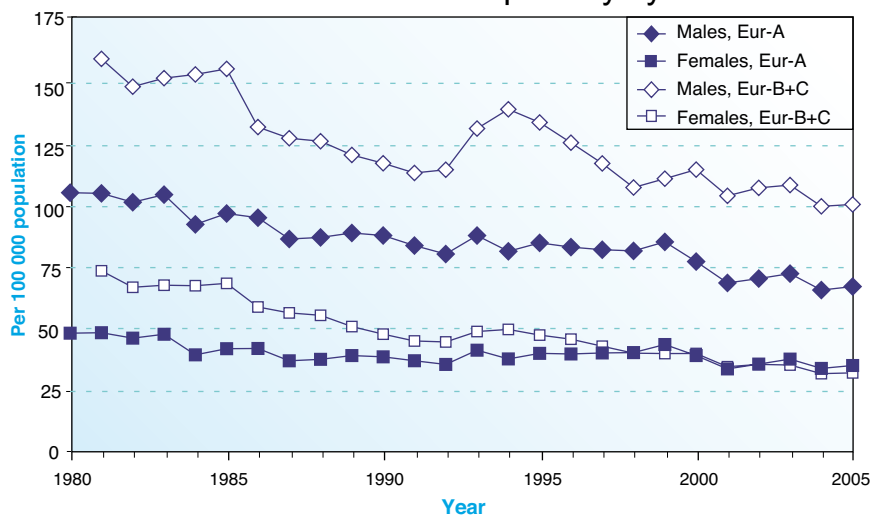
## Deaths from suicide



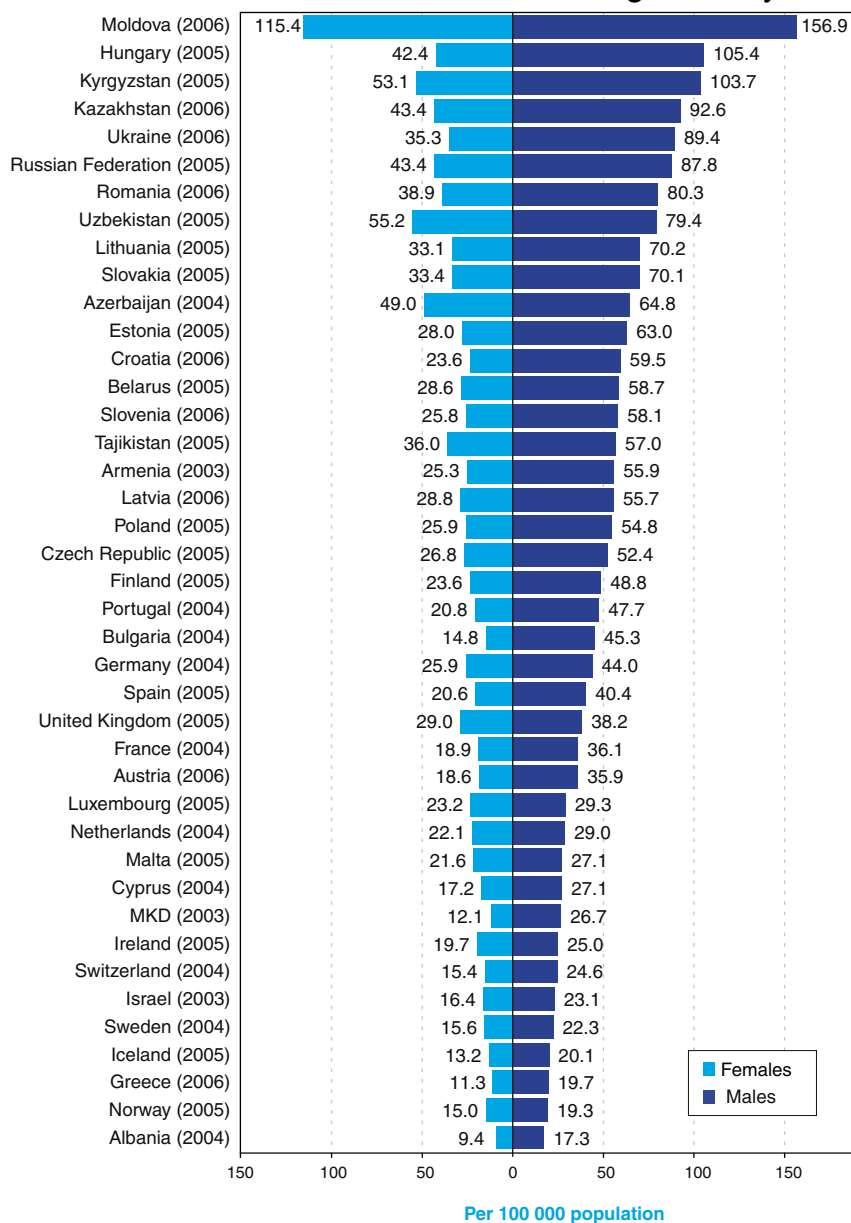
## Deaths from diseases of the respiratory system



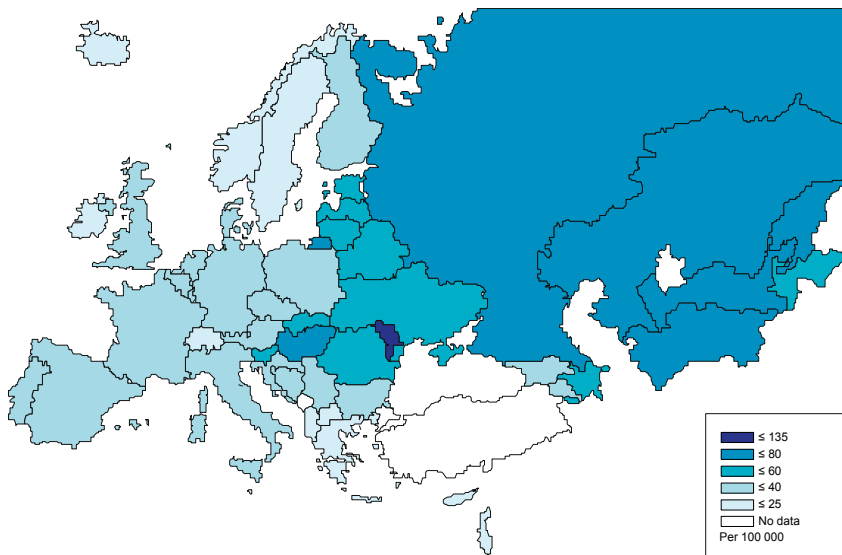
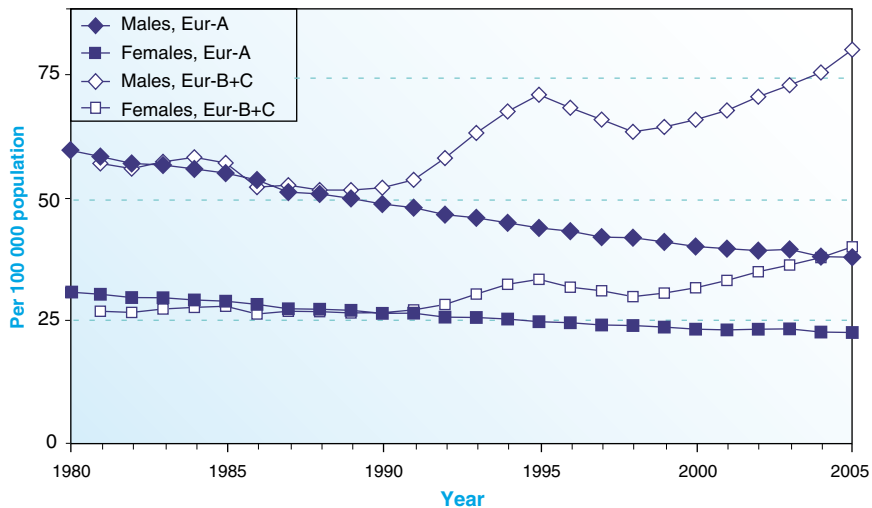
## Deaths from diseases of the respiratory system



## Deaths from diseases of the digestive system

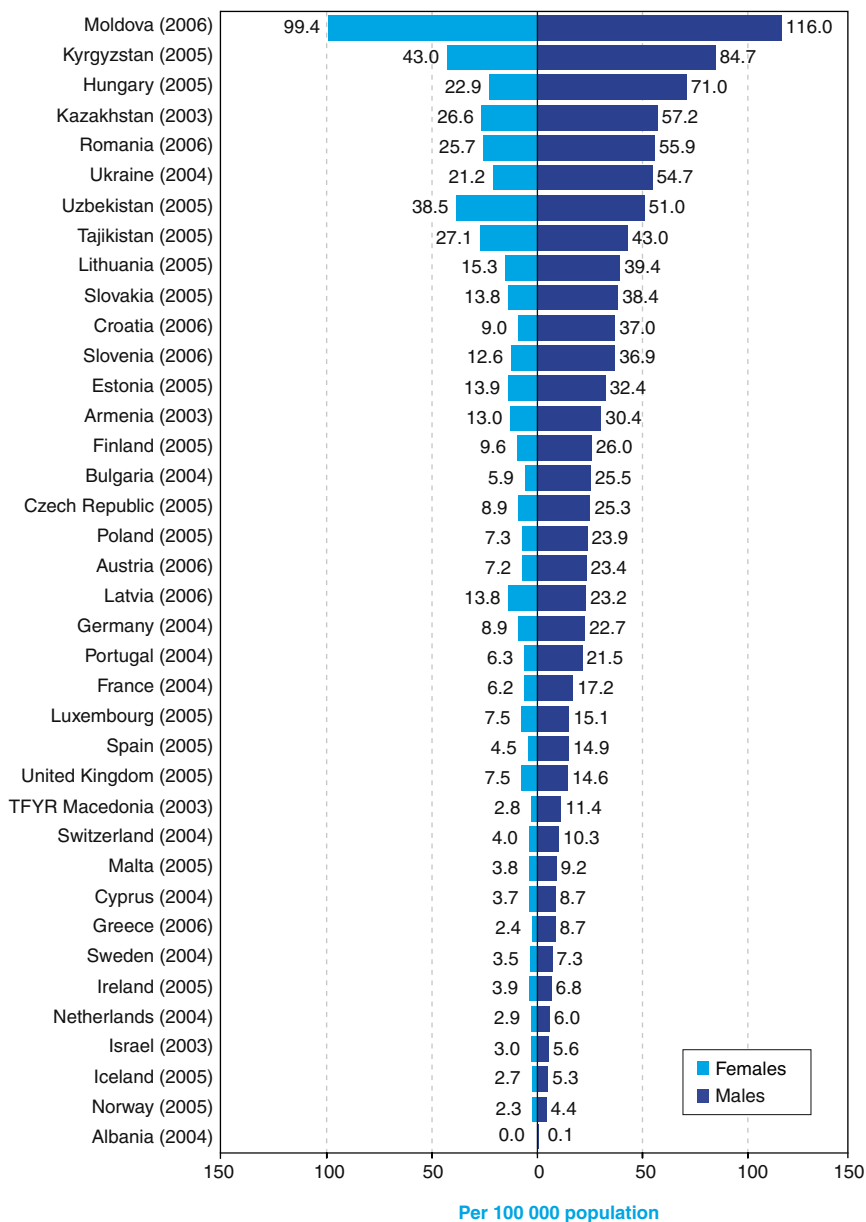


### Deaths from diseases of the digestive system

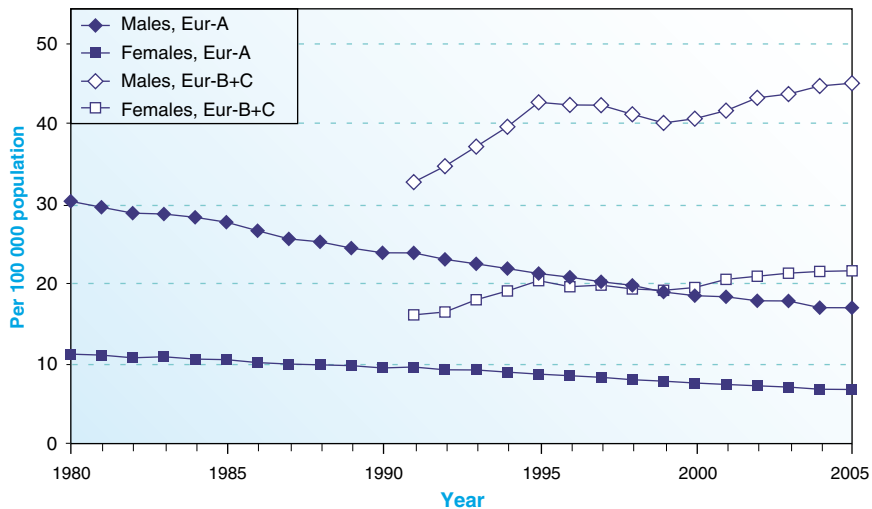




## Deaths from chronic liver diseases and cirrhosis



## Deaths from chronic liver diseases and cirrhosis



## 3. Diseases

### Notes

#### **Tuberculosis (pp. 67–68)**

The figures present rates of newly diagnosed tuberculosis cases, including relapses, of all forms and in all organs. The average rate for Eur-B+C countries has been stable in recent years, but the situation varies between countries. While the rates have declined for many years in some (for example, Hungary, Poland and Slovakia), they are rising in others.

#### **Syphilis (pp. 71–72)**

Syphilis is considered a good indicator of the trends in all sexually transmitted diseases. The eastern part of the Region suffered an epidemic-like increase in the incidence of syphilis in the 1990s, but now the rates are declining in all Eur-B+C countries.

#### **HIV/AIDS (pp. 73–75)**

The data for HIV/AIDS are collected by the European Centre for the Epidemiological Monitoring of AIDS (EuroHIV), a Joint United Nations Programme on HIV/AIDS (UNAIDS)/WHO collaborating centre on AIDS (8). While the AIDS data for the most recent years are adjusted for reporting delays, the data for HIV infections are as reported by countries. The average for reported new HIV infections increased dramatically in Eur-B+C until 2001, particularly owing to increases in Estonia, Latvia and the Russian Federation.

#### **Diabetes (p. 76)**

The prevalence data represent the number of people with diabetes per 100 population. The data are reported by countries from national diabetes registries, whenever available, routine reporting systems or surveys. For some countries, however, no reported data were available; for them, the bar chart shows WHO estimates for 2000 (9).

**Cancer (pp. 77–79)**

The right side of each bar chart shows the number of people newly diagnosed with cancer per 100 000 population during a given year. Data sources are usually national cancer registers. The incidence of lung cancer is clearly correlated with the death rate. This correlation is less clear in the case of female breast and cervical cancer.

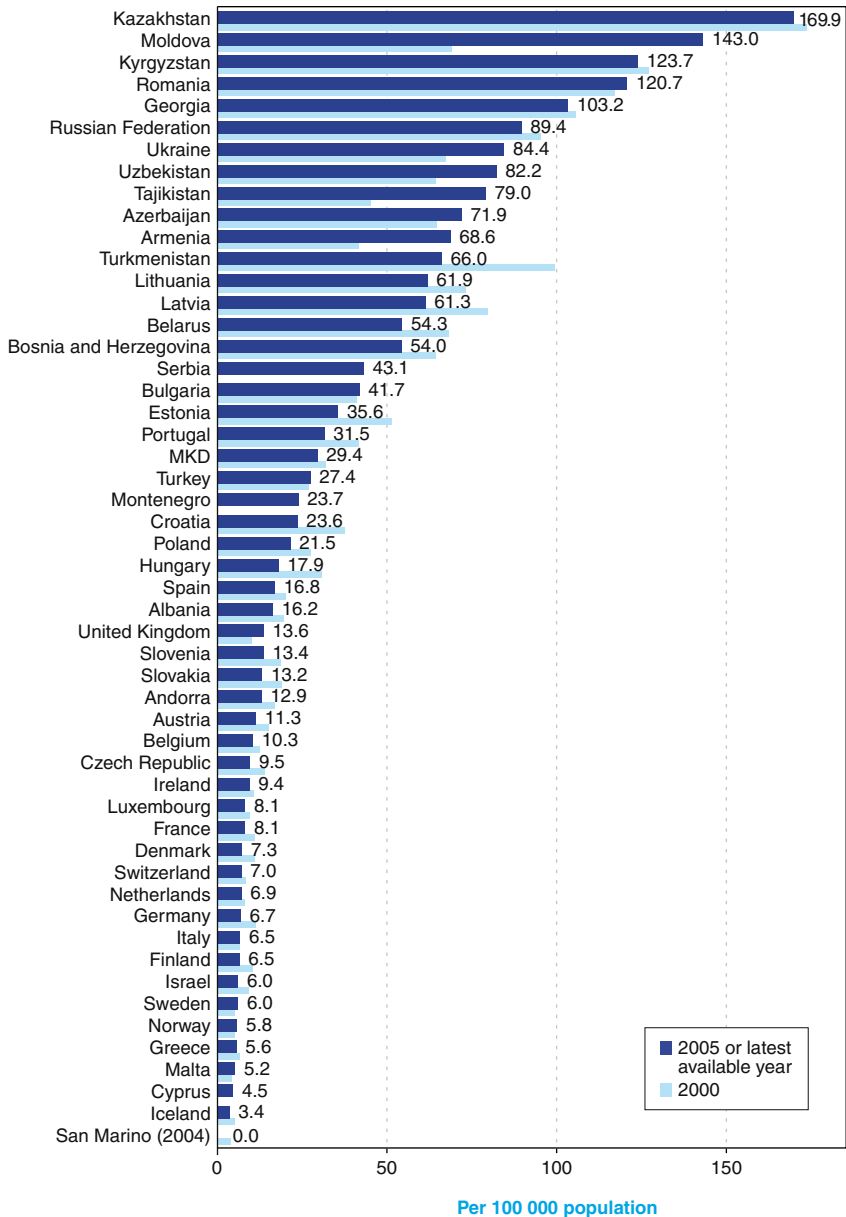
**Hospital discharges (pp. 80–88)**

The rates represent the total number of patients per 100 000 population discharged from all hospitals (including through death) during the year, categorized by the principal diagnosis. Hospital discharge data have limited intercountry comparability, owing to the differences in the organization of hospital data-collection systems in countries and in health care systems in general. Particular caution should be used when discharge data are used to estimate morbidity.

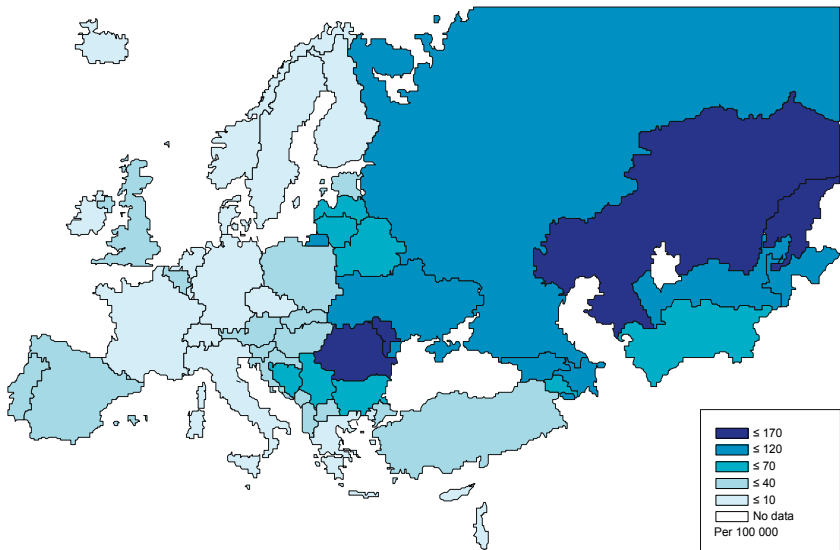
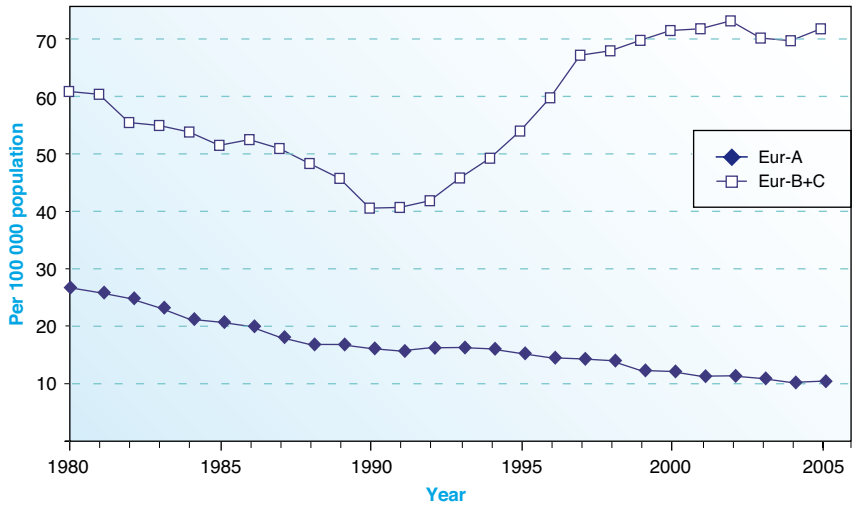
**Teeth (p. 89)**

The average number of decayed, missing or filled teeth among 12-year-old children is the index commonly used to assess oral health. The data are collected by WHO and a collaborating centre in Sweden (10).

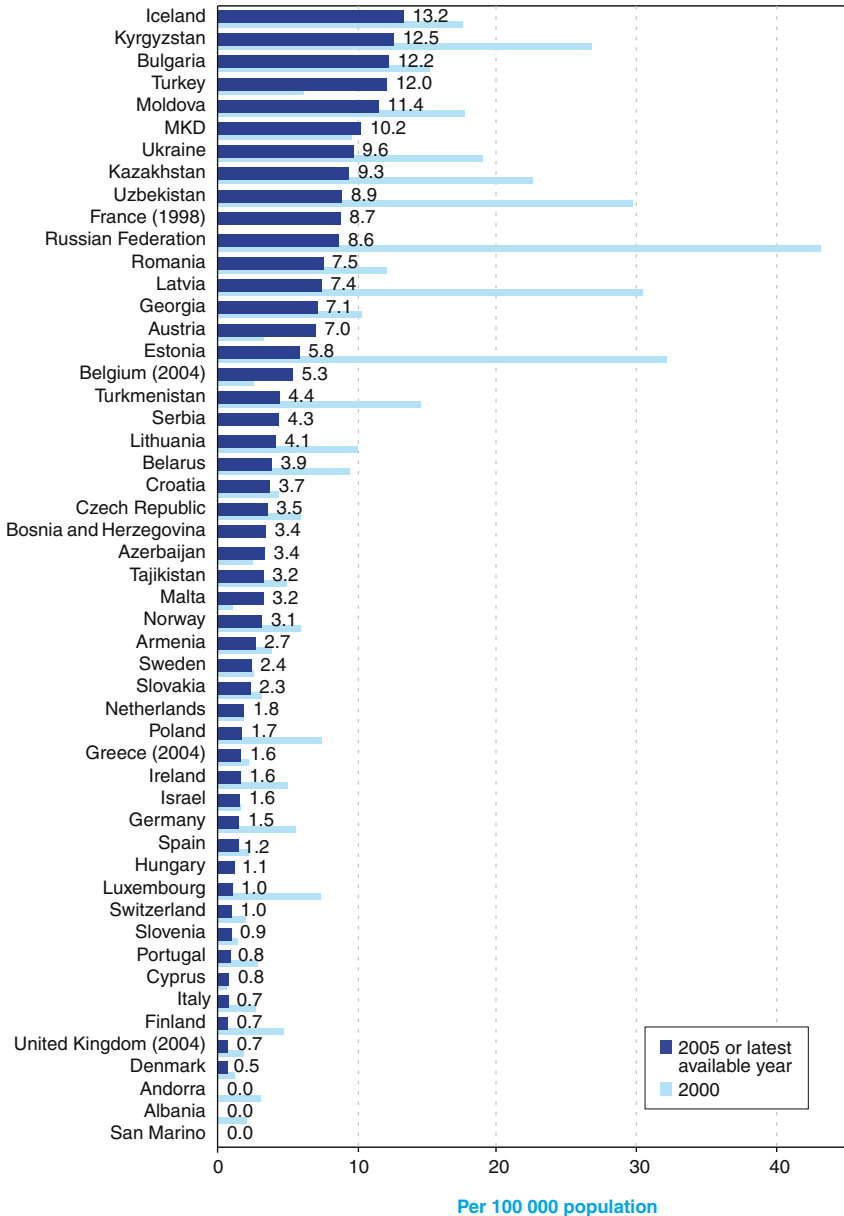
## New cases of tuberculosis



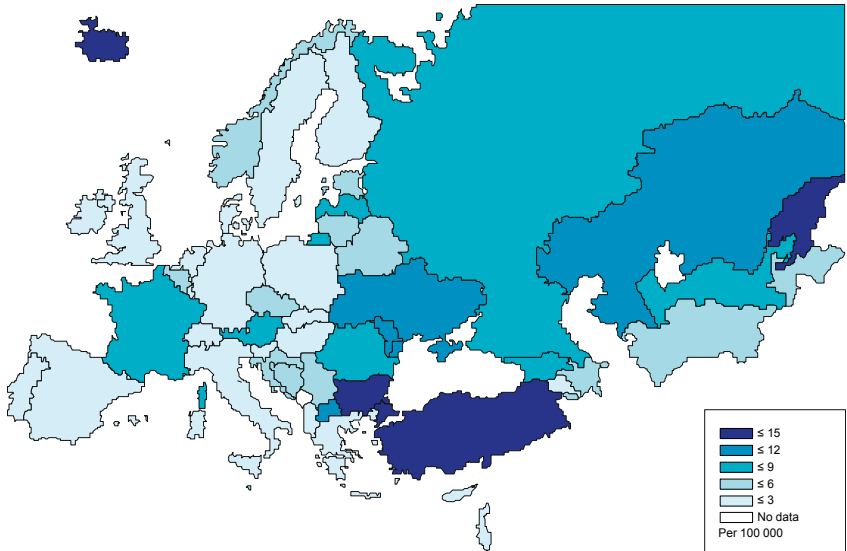
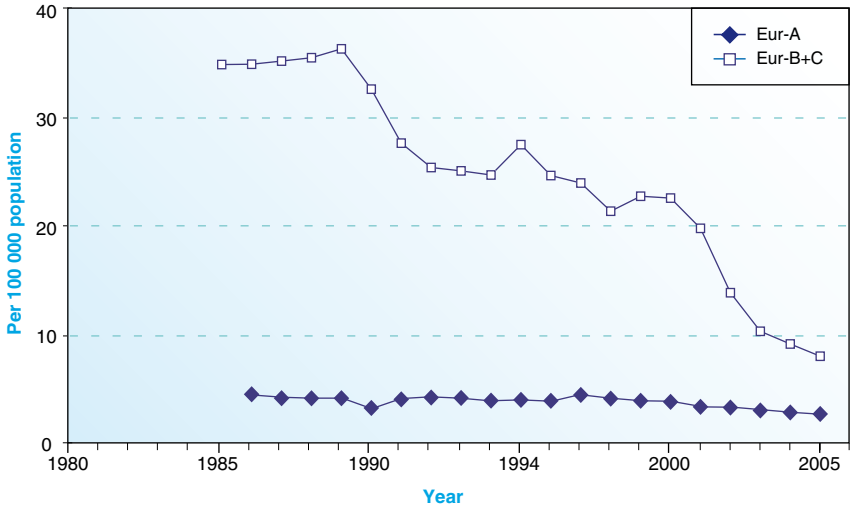
### New cases of tuberculosis



## New cases of hepatitis B

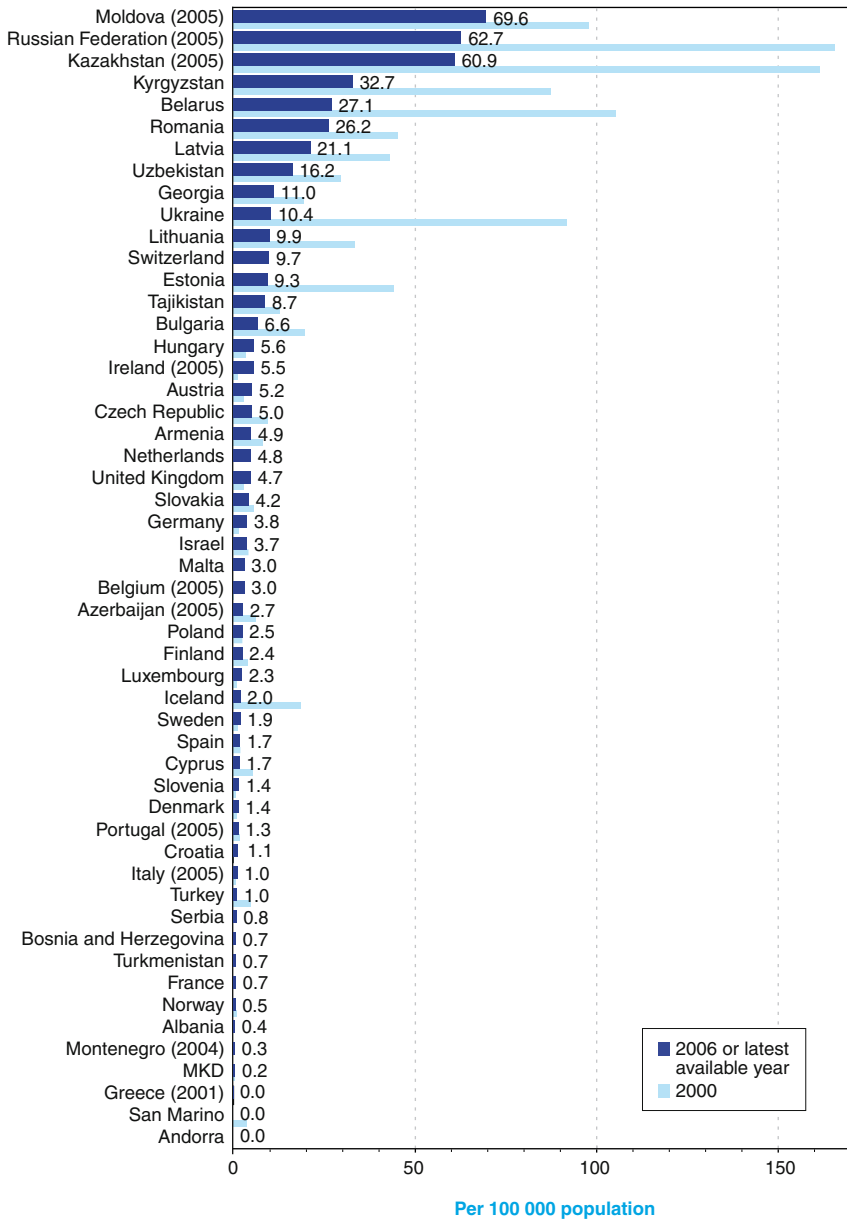


### New cases of hepatitis B

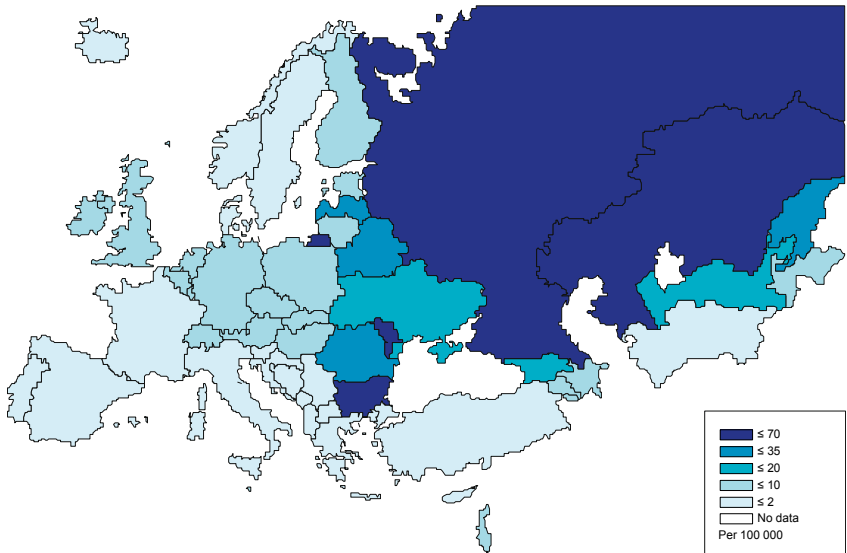
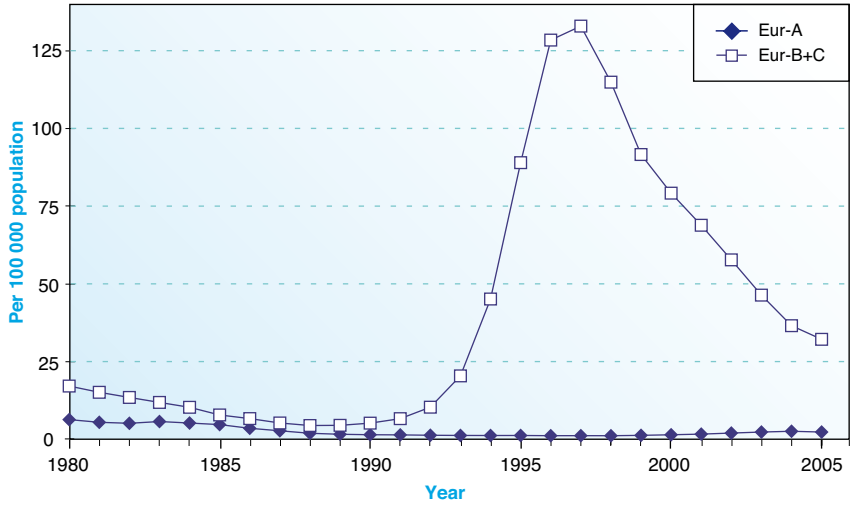




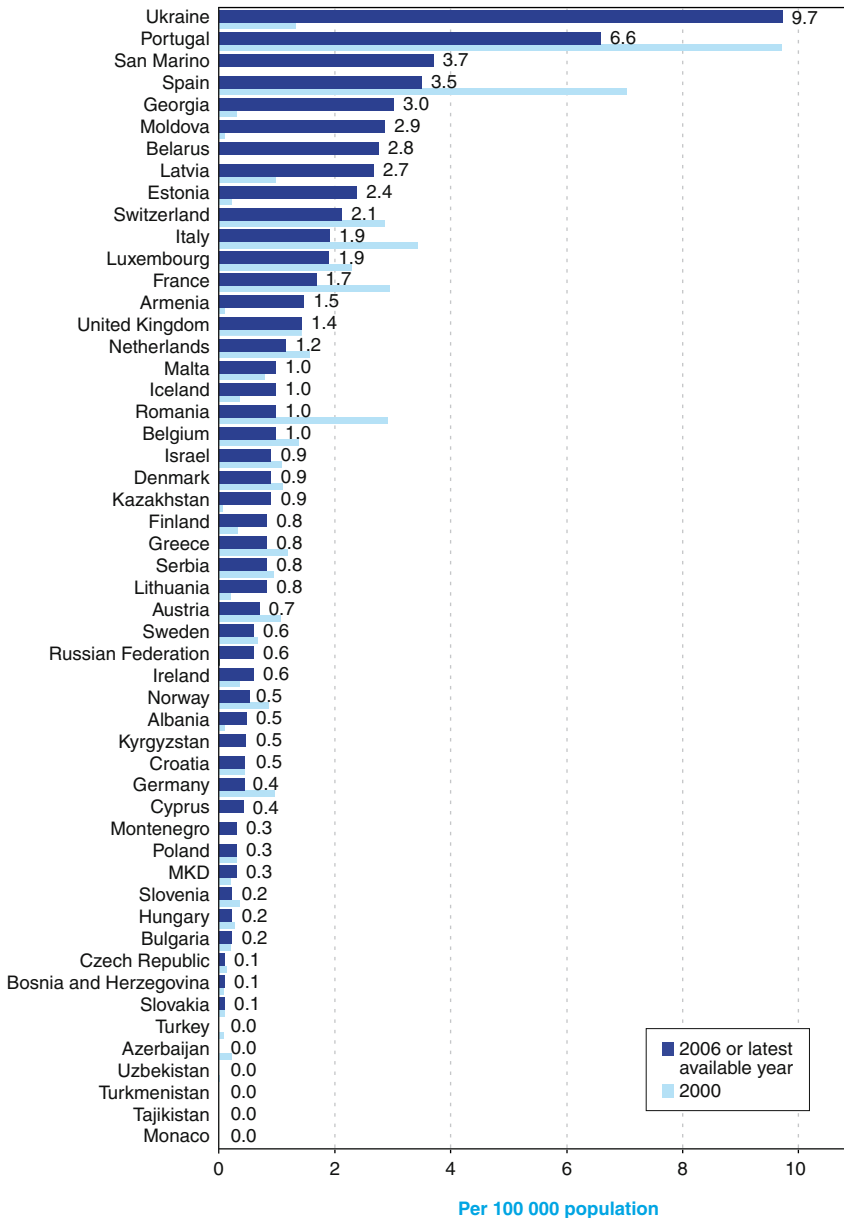
## New cases of syphilis



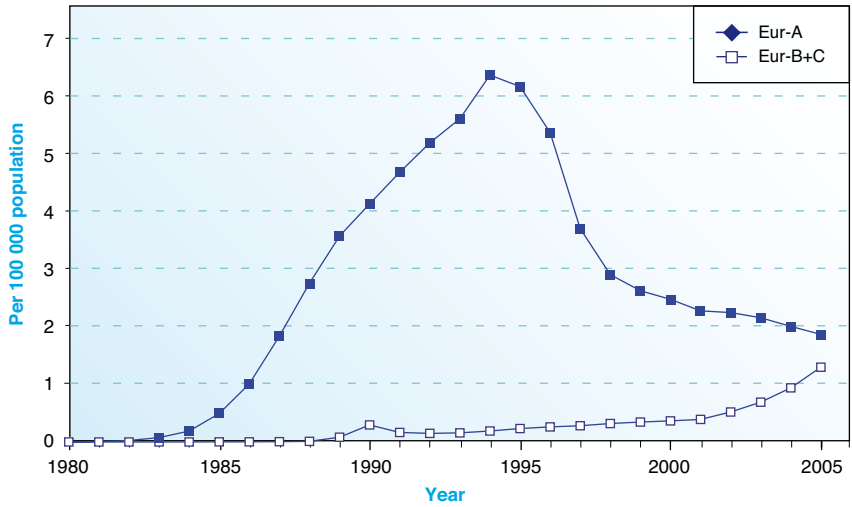
### New cases of syphilis



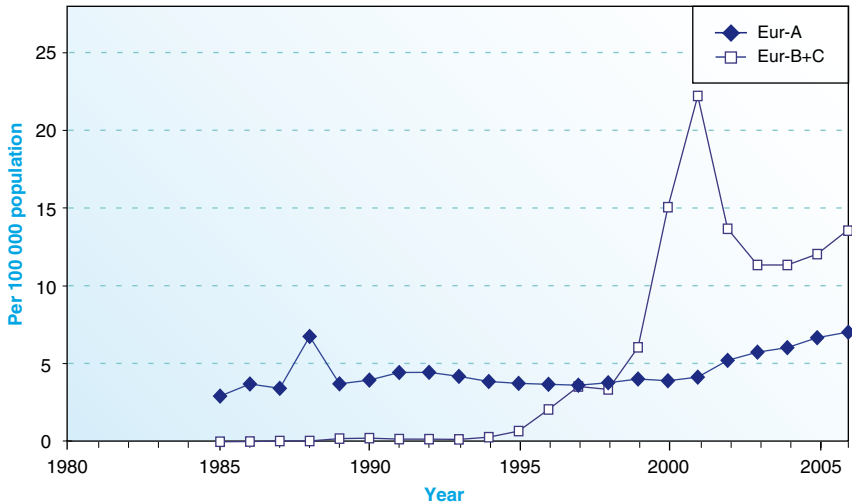
## New cases of clinically diagnosed AIDS

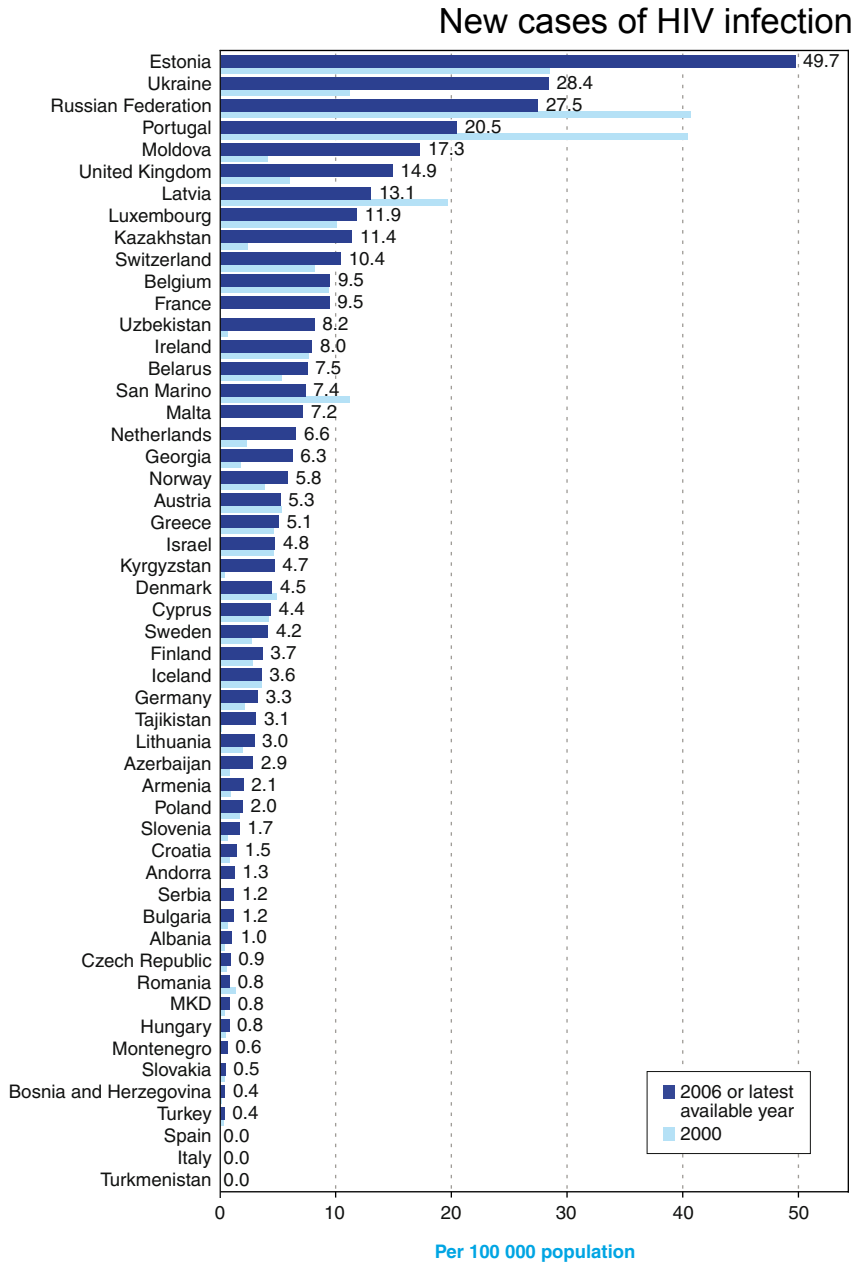


### New cases of clinically diagnosed AIDS

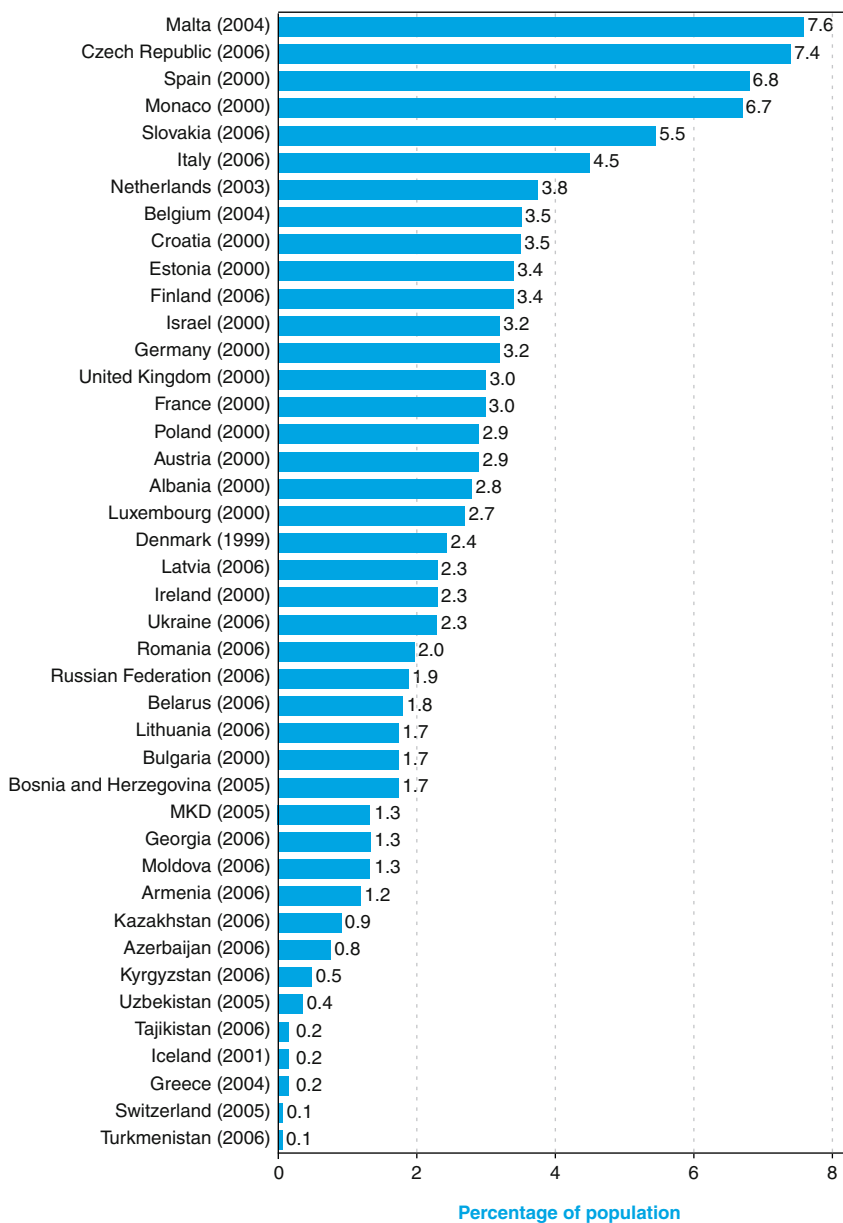


### New cases of HIV infection

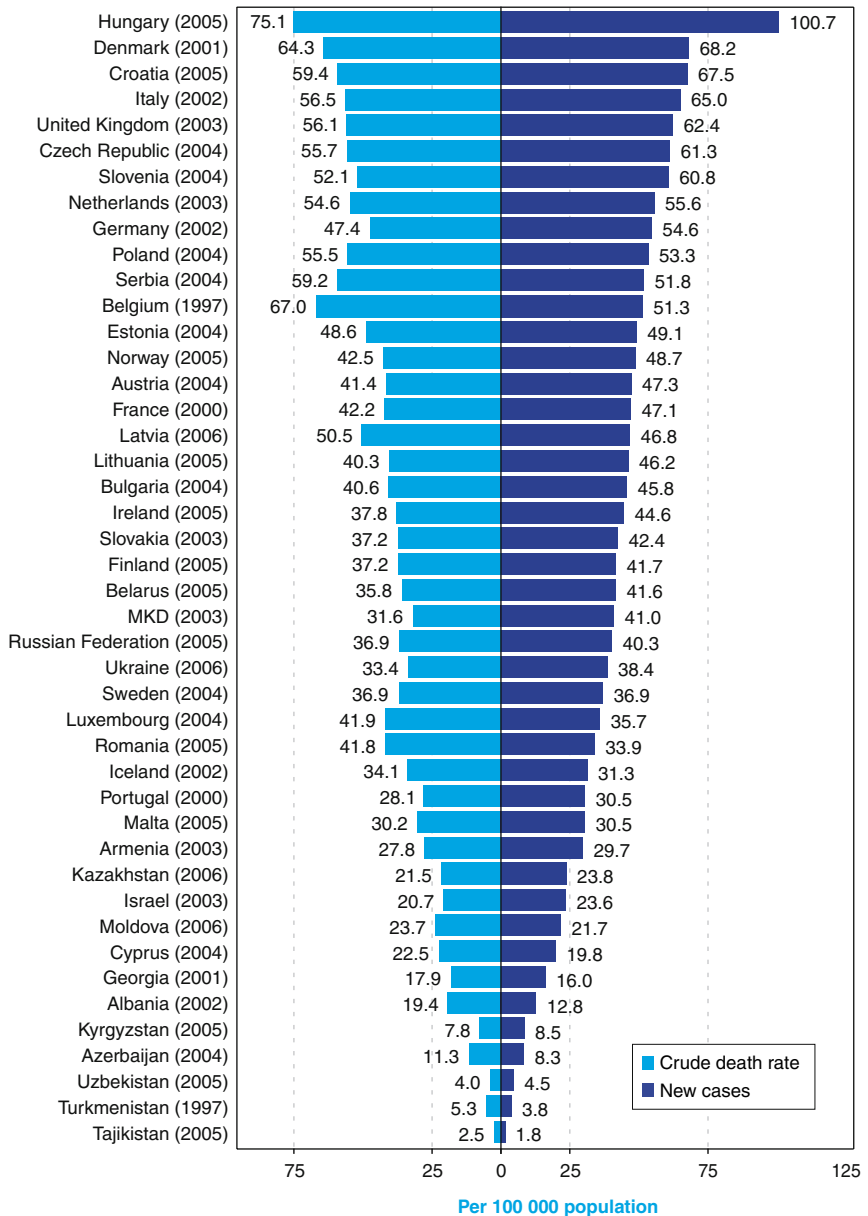




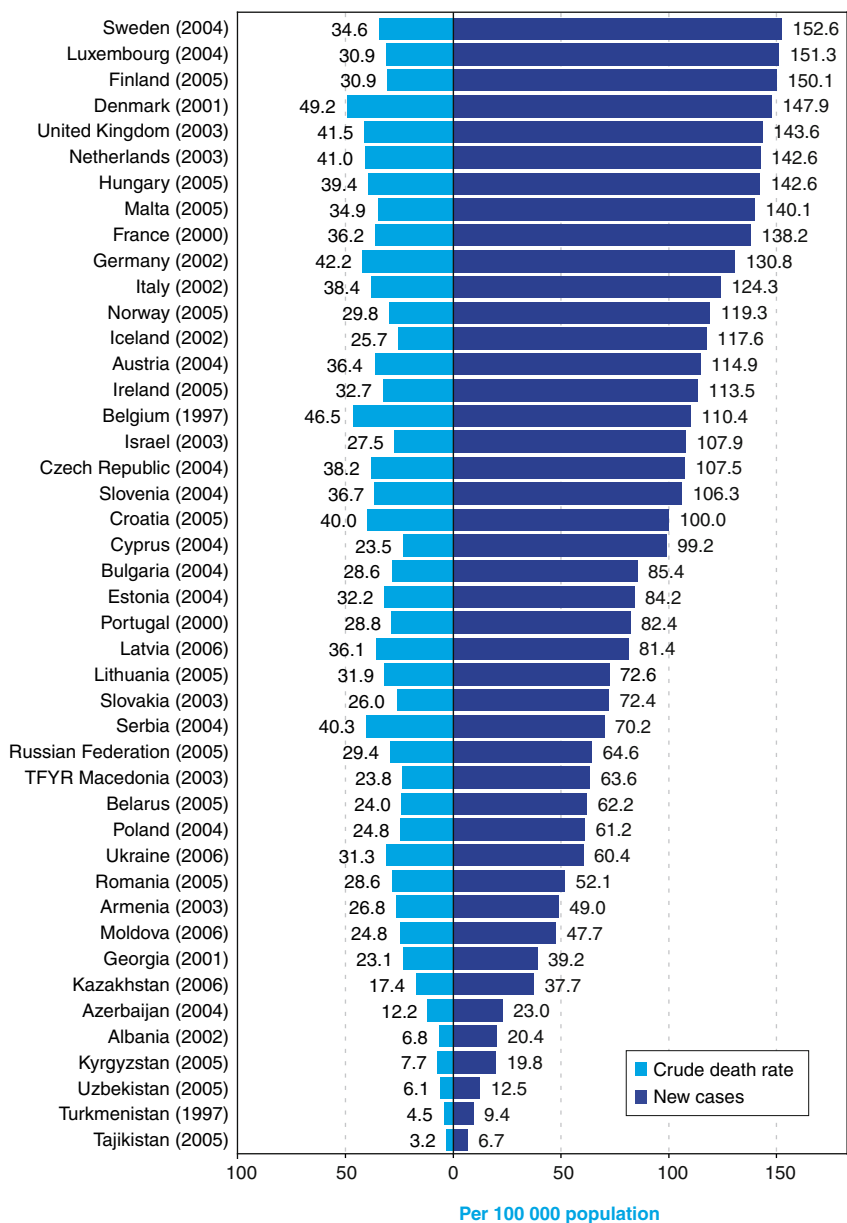
## Prevalence of diabetes mellitus



## New cases of and deaths from lung cancer

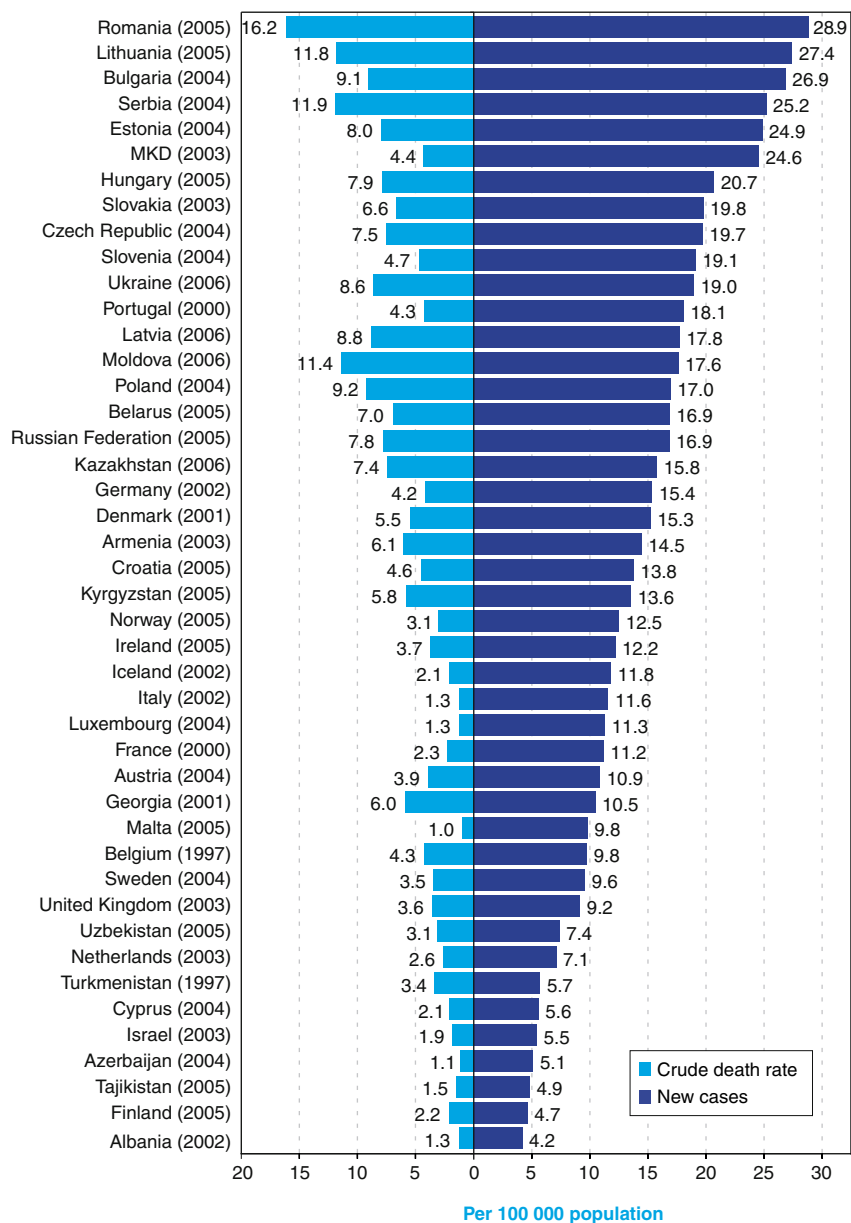


## New cases of and deaths from female breast cancer

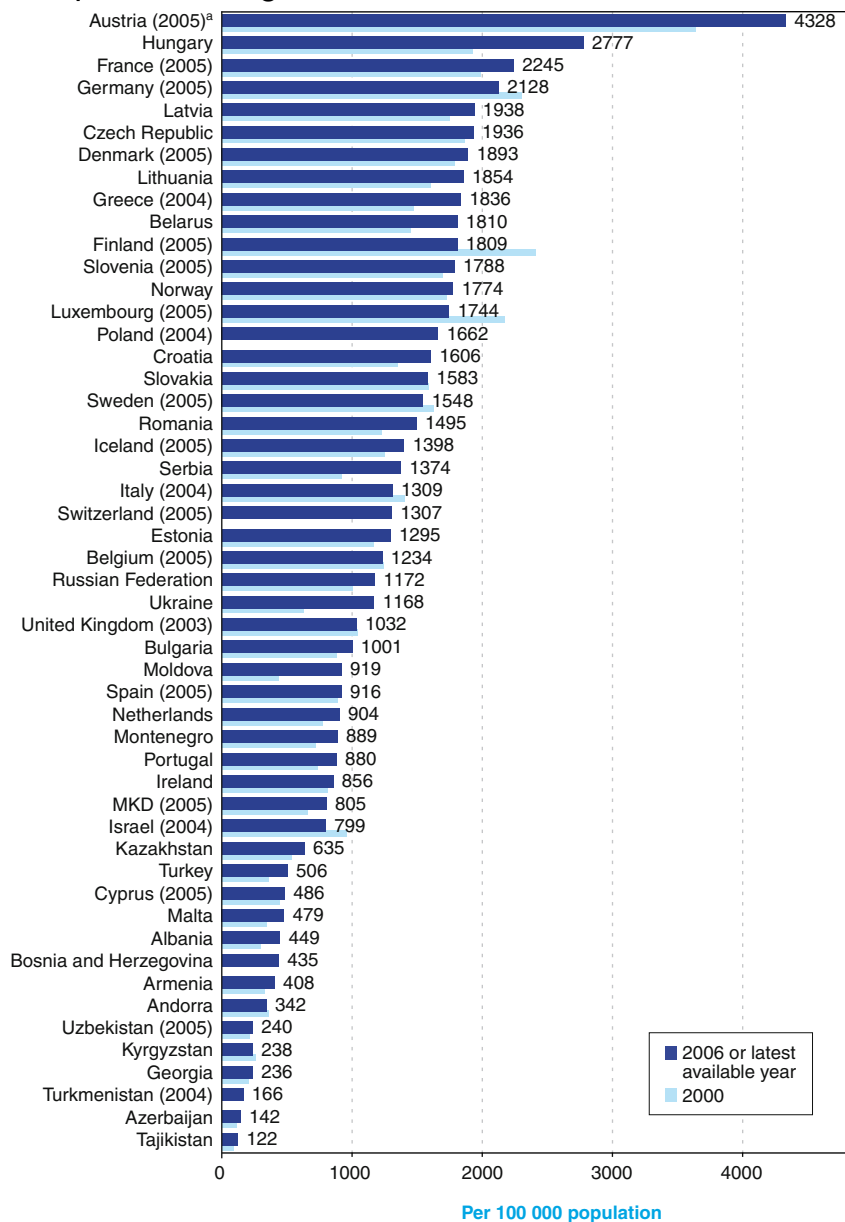




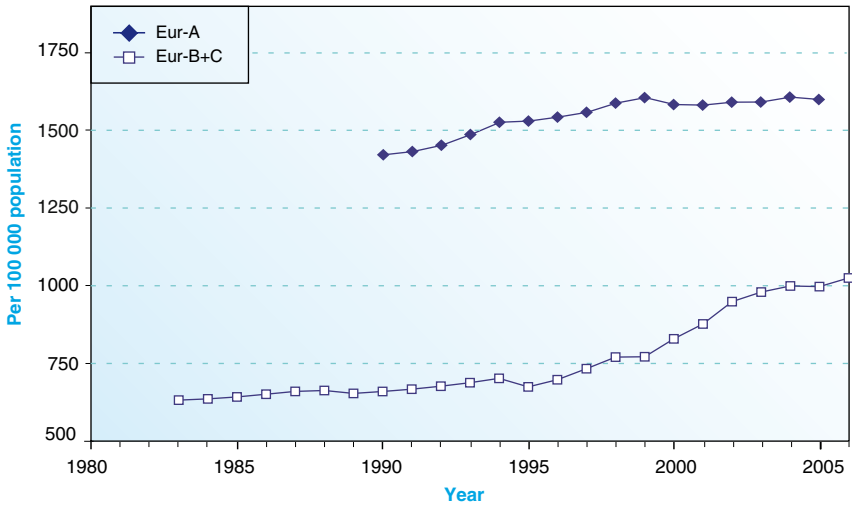
## New cases of and deaths from cervical cancer



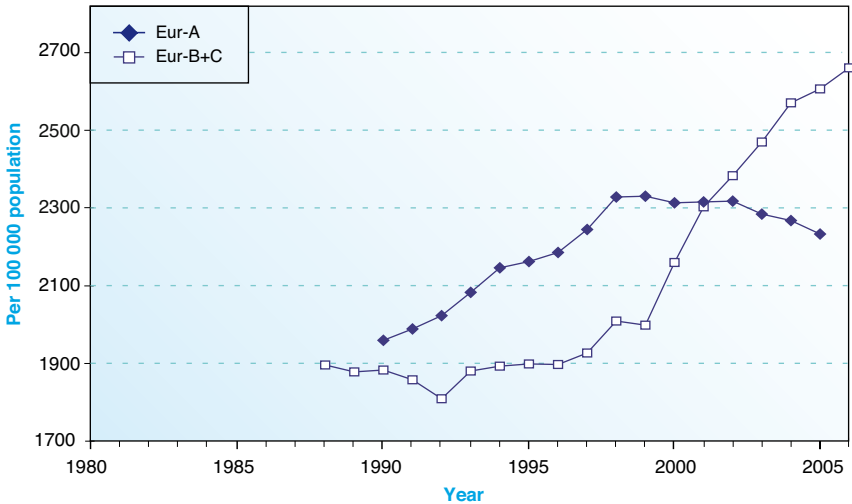
## Hospital discharges for cancer

<sup>a</sup>Including day cases.

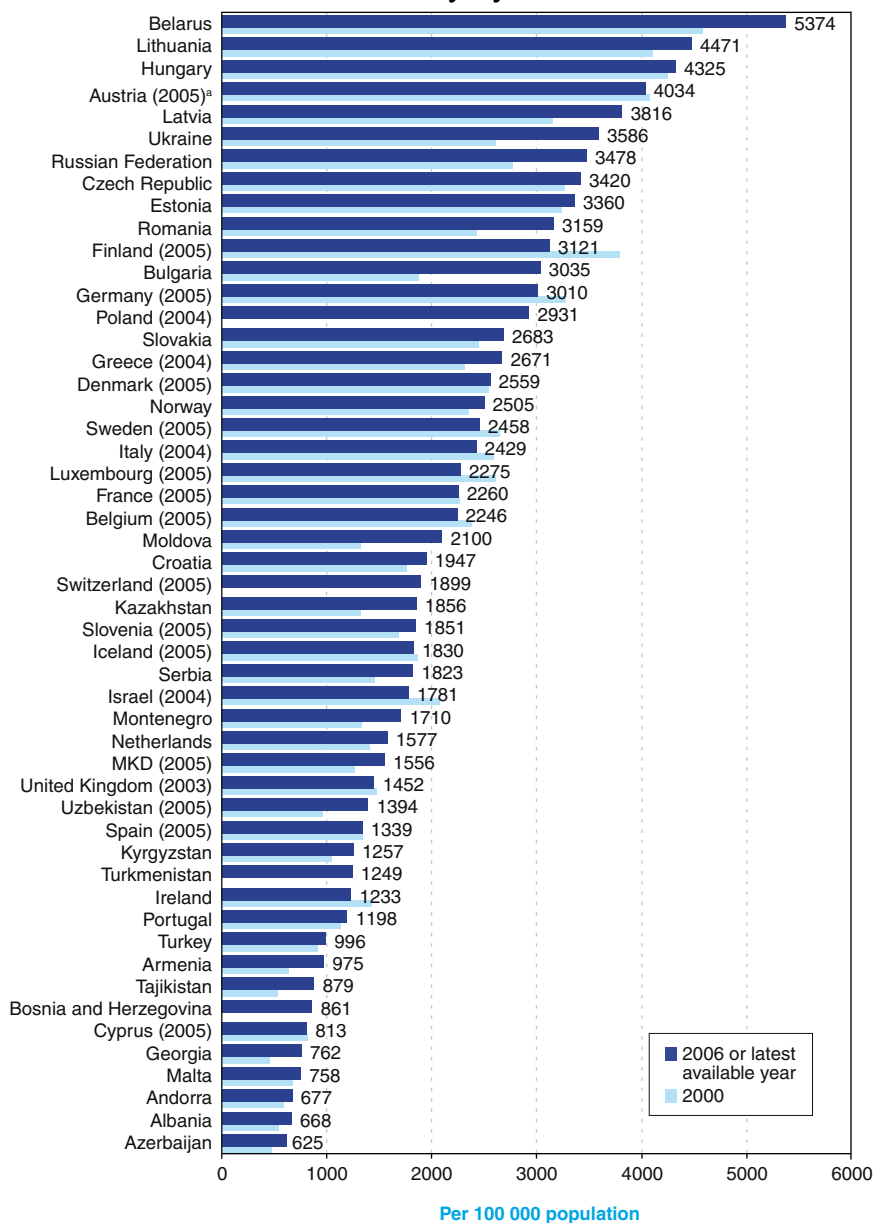
### Hospital discharges for cancer



### Hospital discharges for diseases of the circulatory system

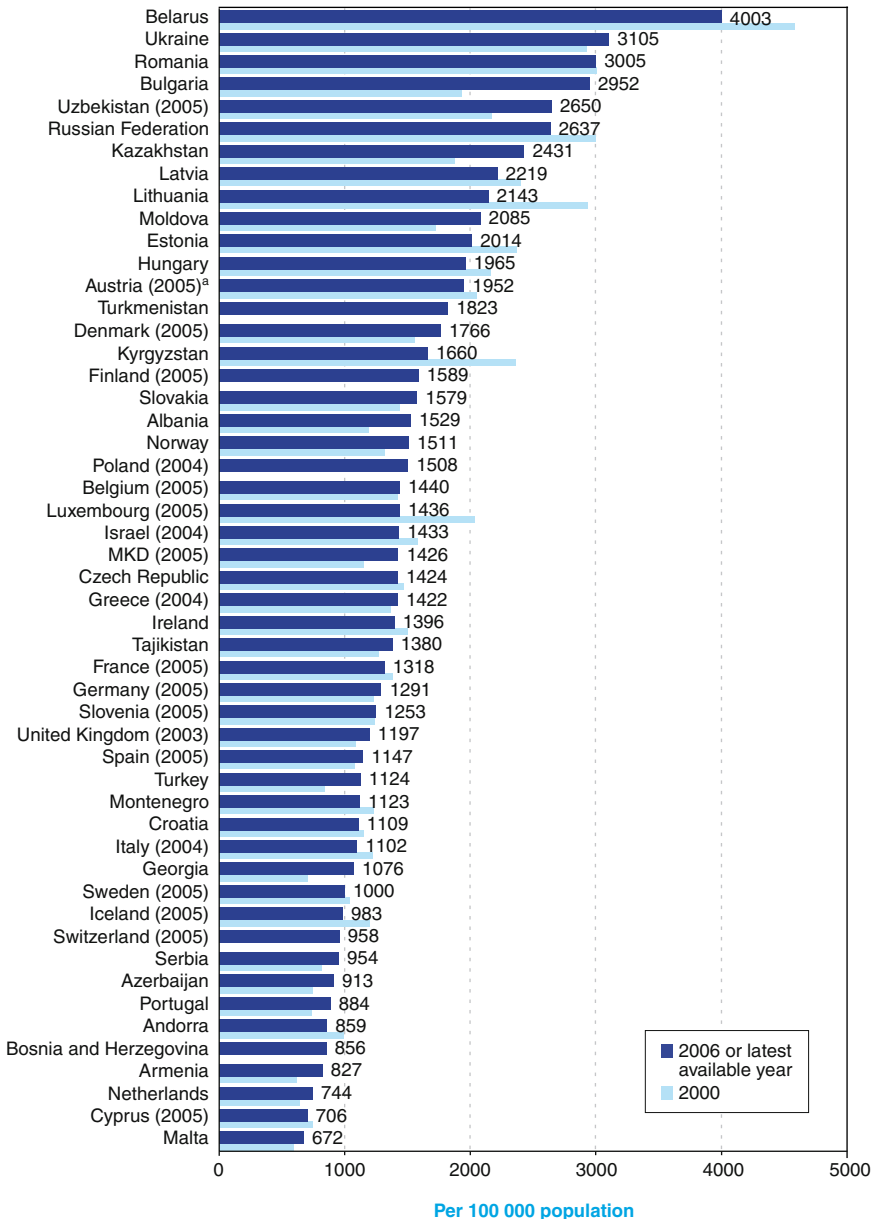


## Hospital discharges for diseases of the circulatory system



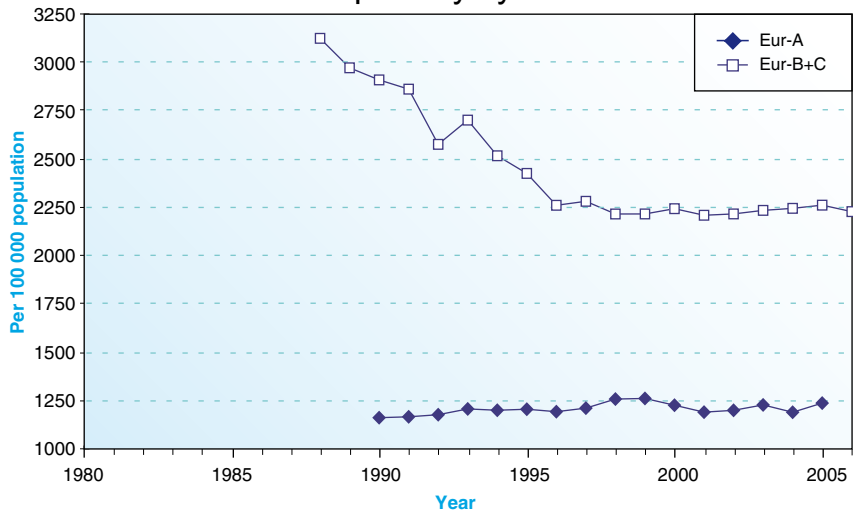
<sup>a</sup>Including day cases.

## Hospital discharges for diseases of the respiratory system

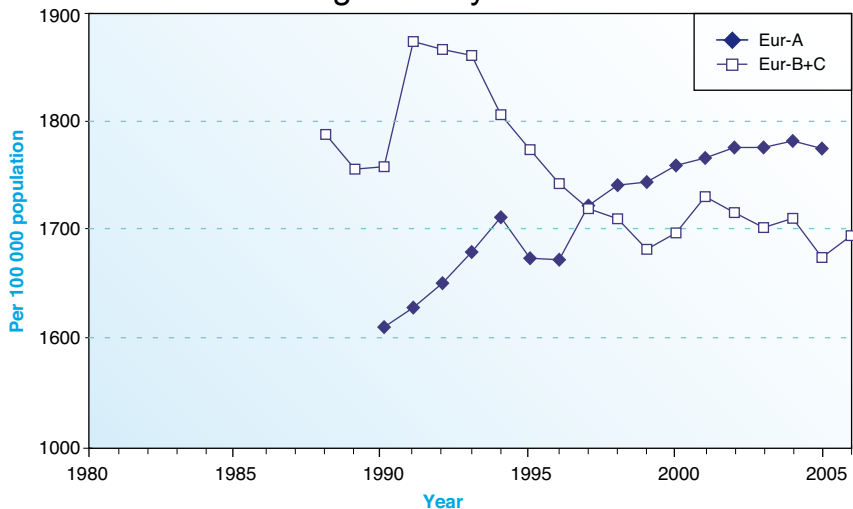


<sup>a</sup>Including day cases.

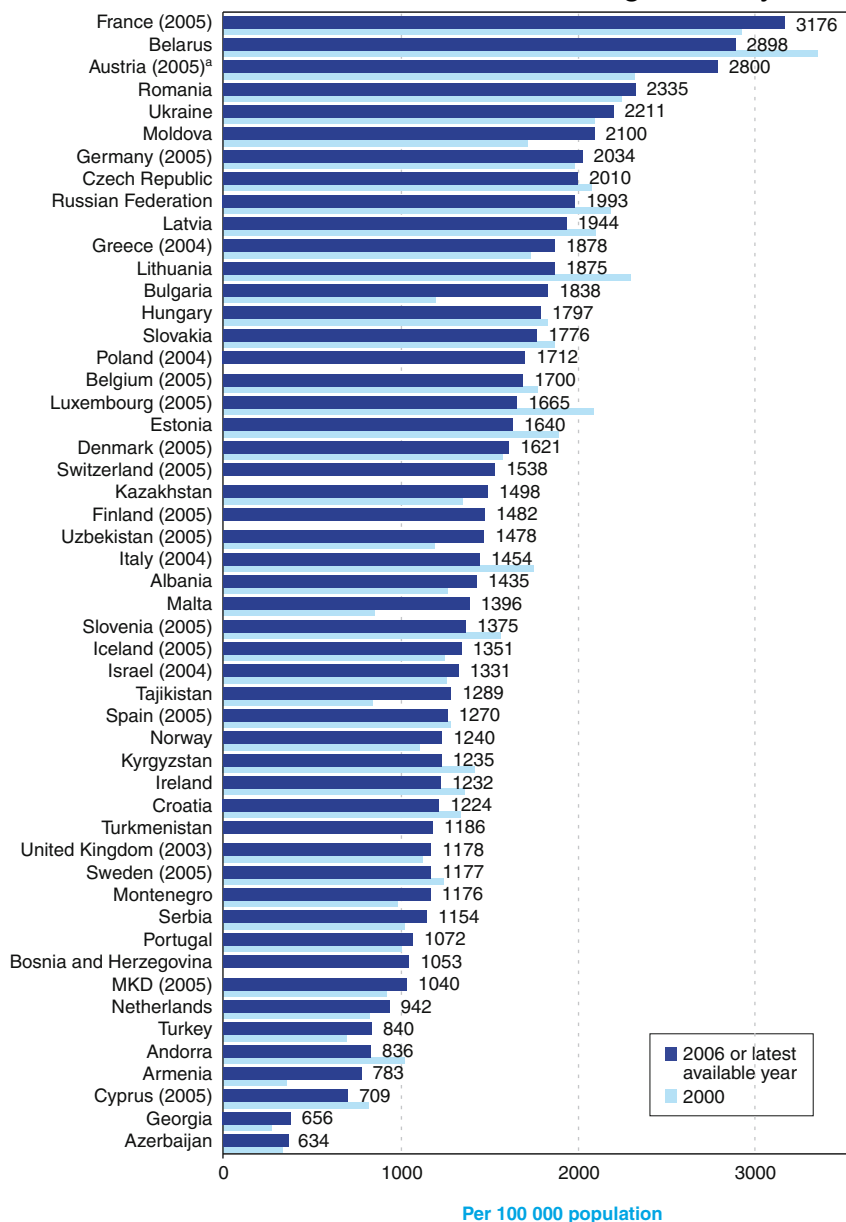
### Hospital discharges for diseases of the respiratory system



### Hospital discharges for diseases of the digestive system

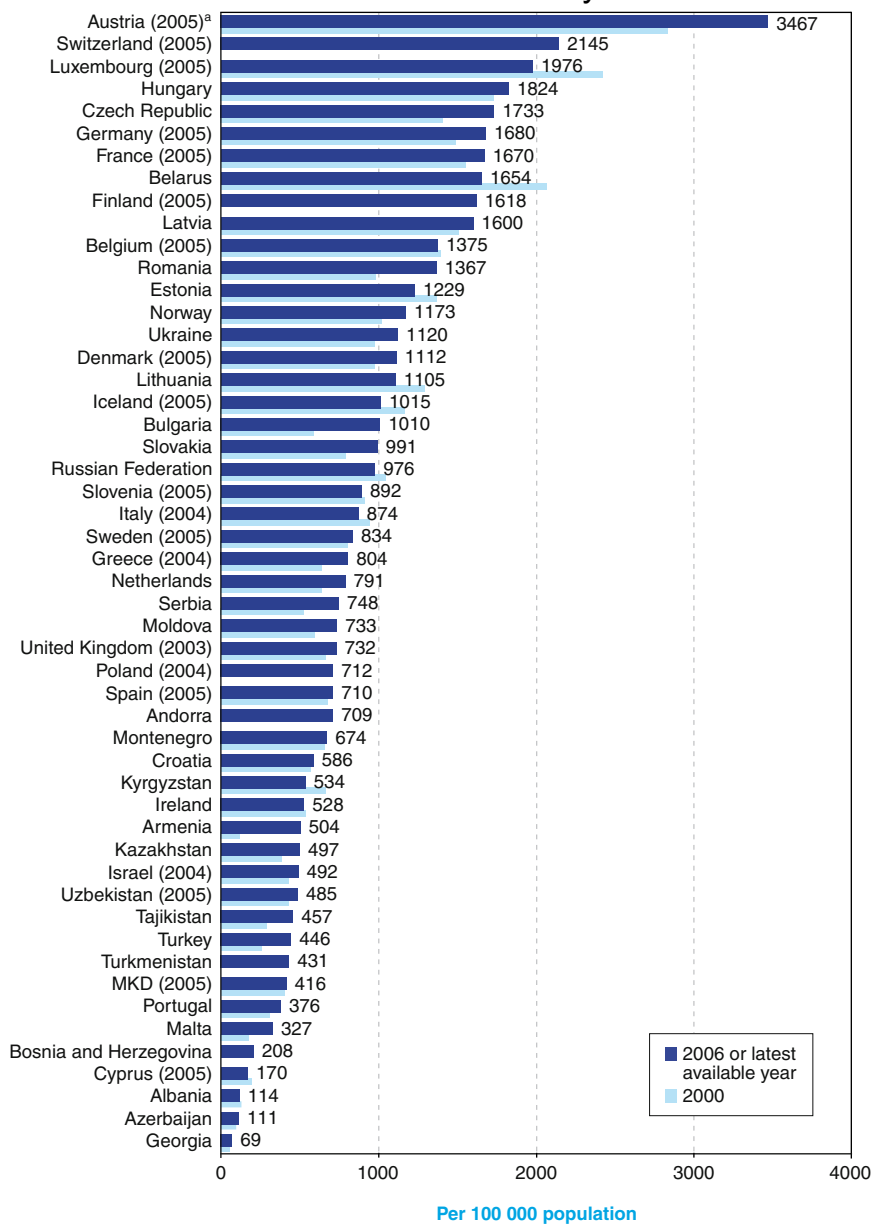


## Hospital discharges for diseases of the digestive system



<sup>a</sup>Including day cases.

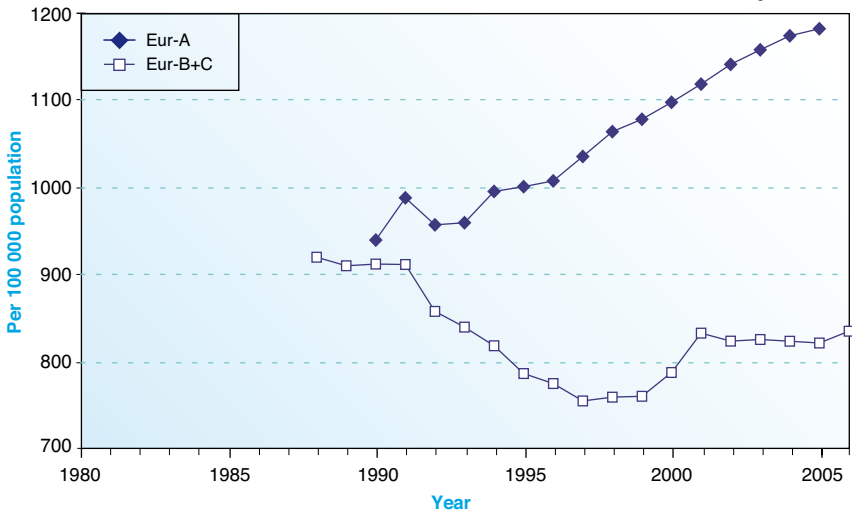
## Hospital discharges for diseases of the musculoskeletal system



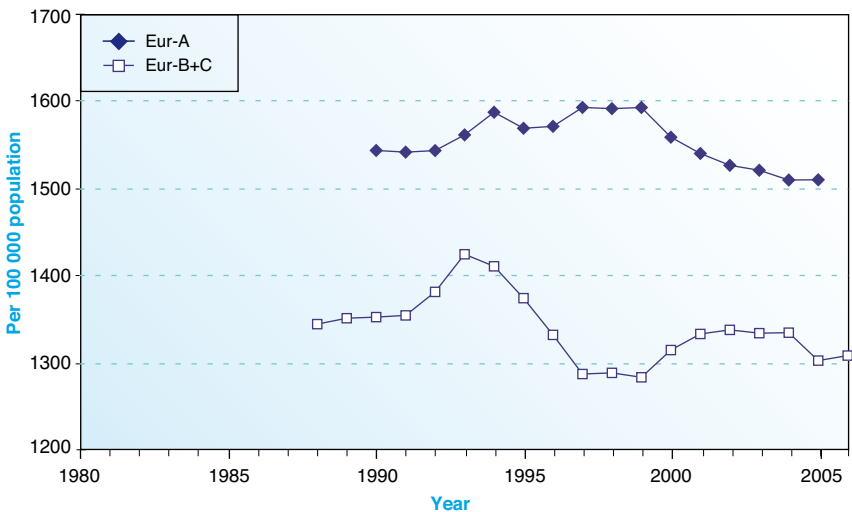
<sup>a</sup>Including day cases.



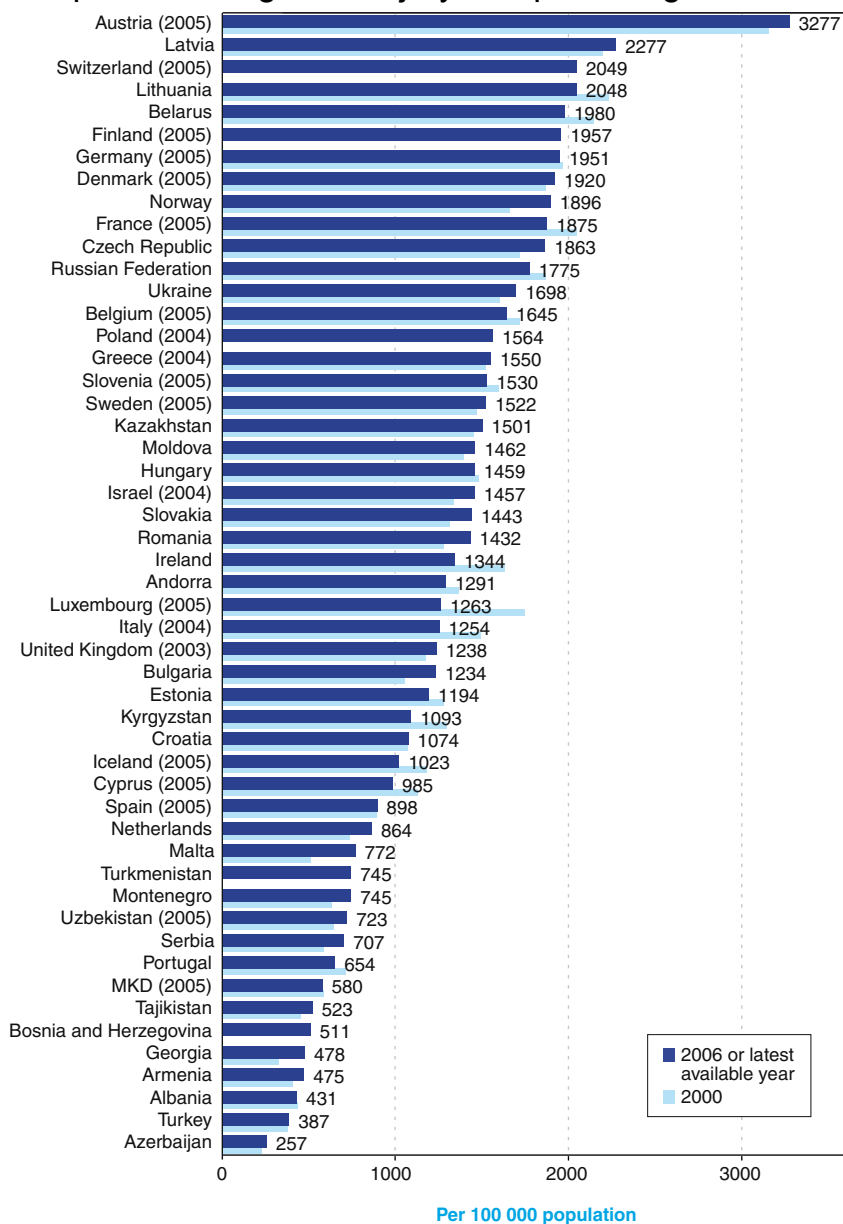
### Hospital discharges for diseases of the musculoskeletal system



### Hospital discharges for injury and poisoning

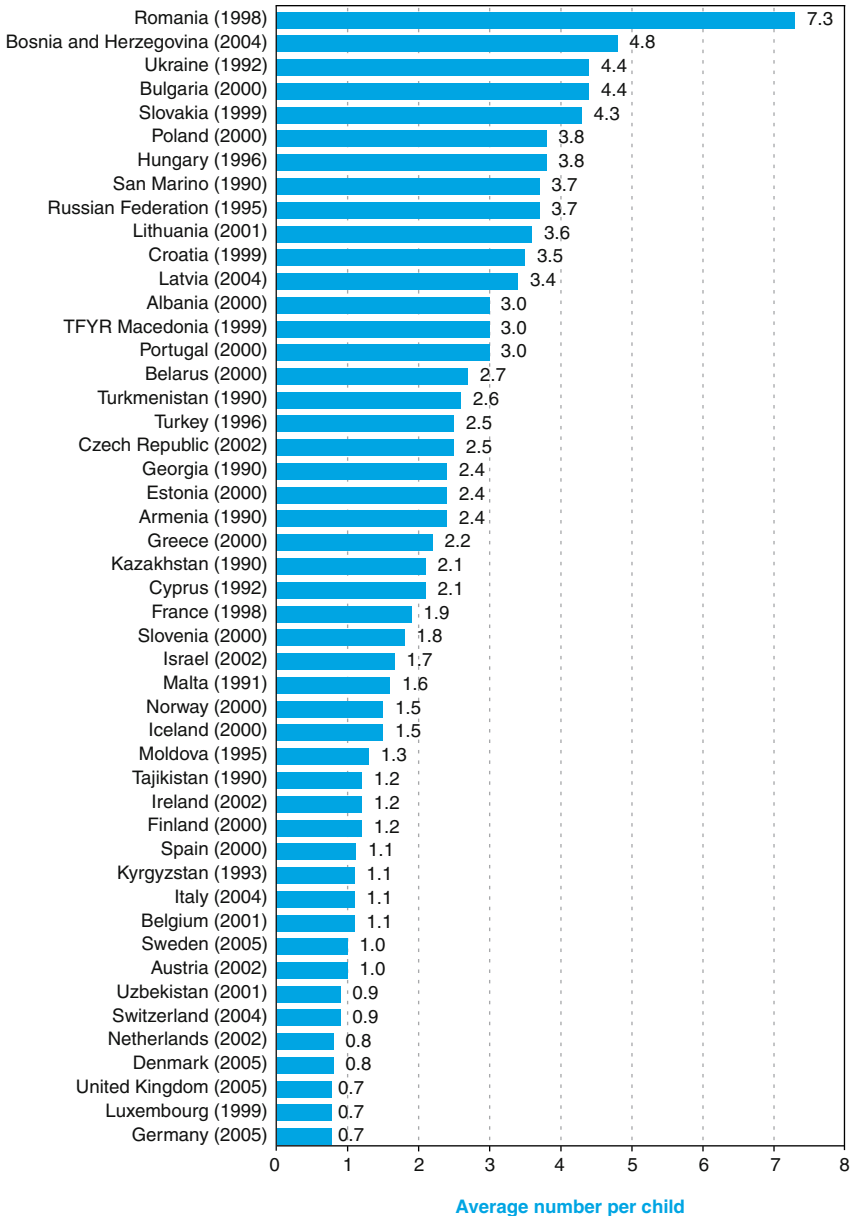


## Hospital discharges for injury and poisoning



<sup>a</sup>Including day cases.

## Decayed, missing or filled teeth in 12-year-olds





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## 4. Lifestyles and environment

### Notes

#### **Smoking (pp. 93–94)**

Countries estimate the percentage of regular daily smokers aged 15 years and over on the basis of health interview surveys or other population surveys. The WHO Regional Office for Europe collects the data. Most of the estimates are based on multiple sources, however, and population samples are not always representative of a whole country. Intercountry comparisons should therefore be made with caution.

Smoking prevalence among young people (15-year-olds) is estimated in a more uniform way across the European Region through the WHO Health Behaviour in School-aged Children study (11). The study does not collect data for all countries in the Region, however.

#### **Overweight and obesity (pp. 95–96)**

The WHO Regional Office for Europe collected the data presented here in 2007.

#### **Motor vehicle traffic accidents (pp. 97–98)**

The main data source for accidents with injury is *Statistics of road traffic accidents in Europe and North America* (12), regularly published by UNECE. Data on deaths from traffic accidents come from the WHO mortality database (3). Practices in registering traffic accidents vary significantly among countries, thus limiting international comparisons.

The available data show that eastern and some central European countries have both the lowest numbers of registered accidents with injury per 100 000 population, but the highest numbers of people killed per 1000 accidents. This correlation most likely results partially from the incomplete registration of all accidents in these countries and the low standard of traffic safety precautions in the eastern part of the Region.

#### **Alcohol (pp. 99–102)**

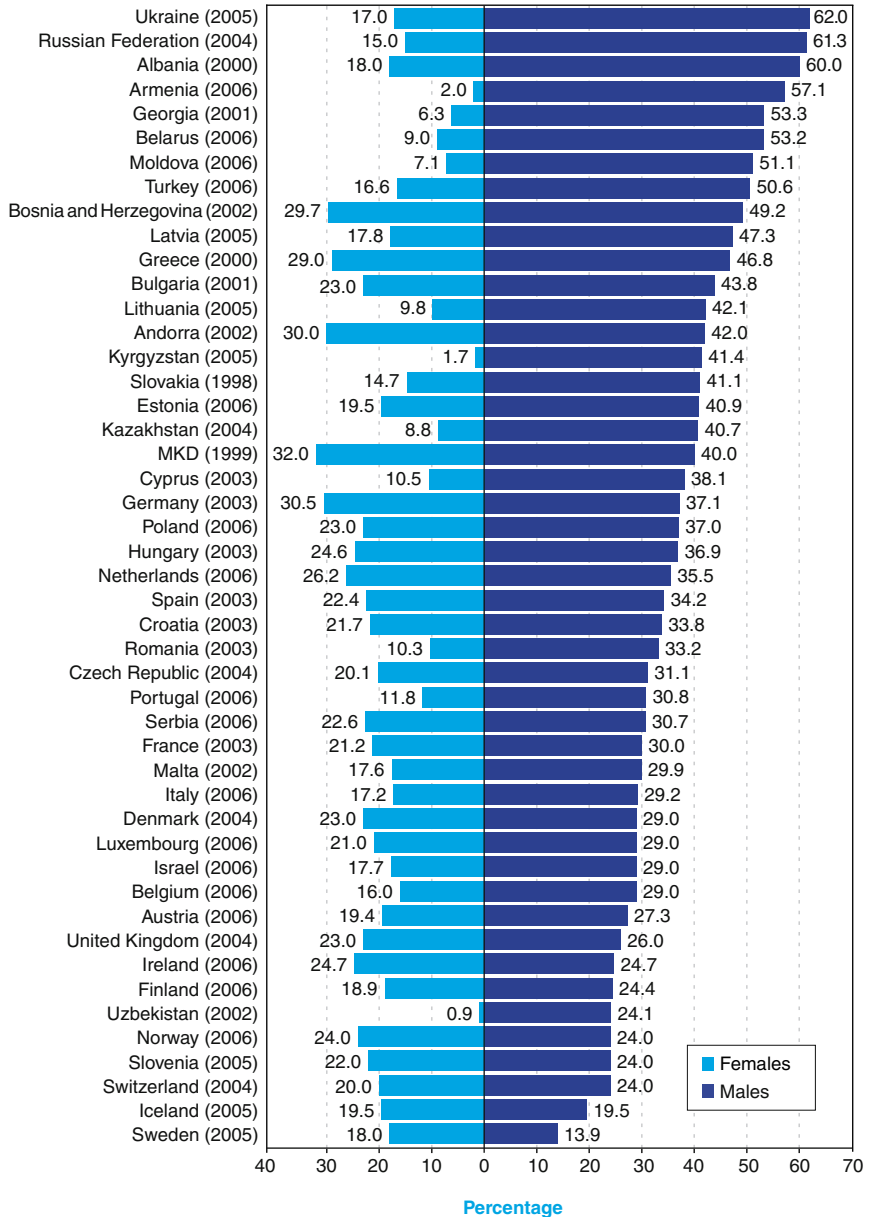
The data show the estimated amount of pure ethanol consumed in the form of spirits, wine, beer and other alcoholic drinks, per person per year.

Estimates are calculated from official statistics on local production, sales, imports and exports, taking account of stocks and home production, whenever possible. The WHO Regional Office for Europe collects data and makes calculations mainly from two sources: FAO and data reported directly by countries.

**Work-related deaths (pp. 102–104)**

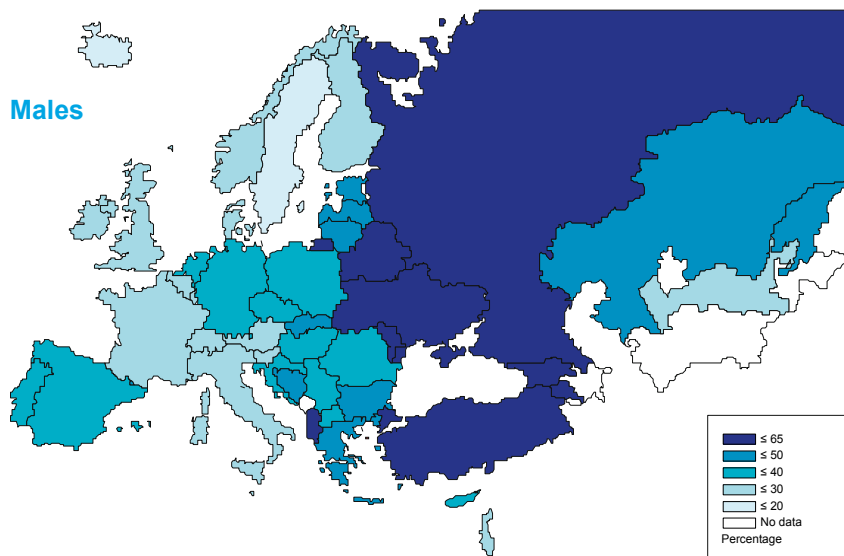
The data source is the ILO.

## Smokers among adults

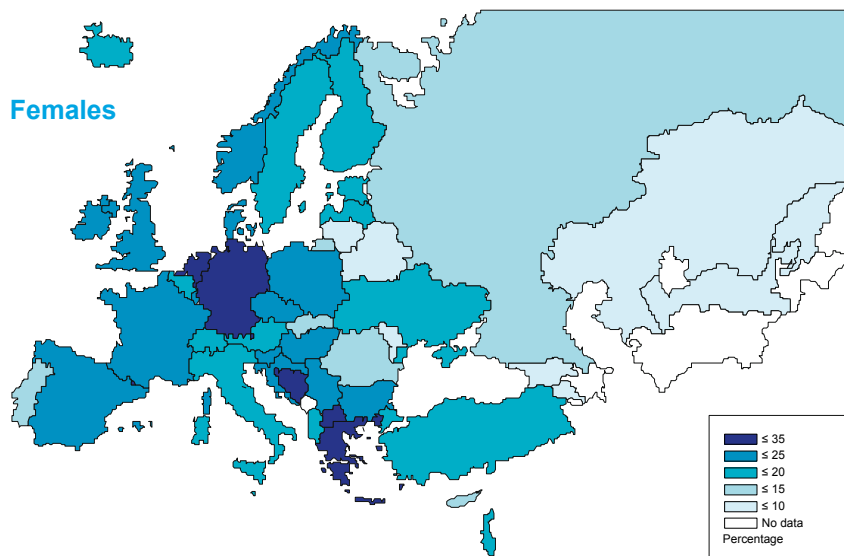


## Regular daily smokers, 15+ years

### Males

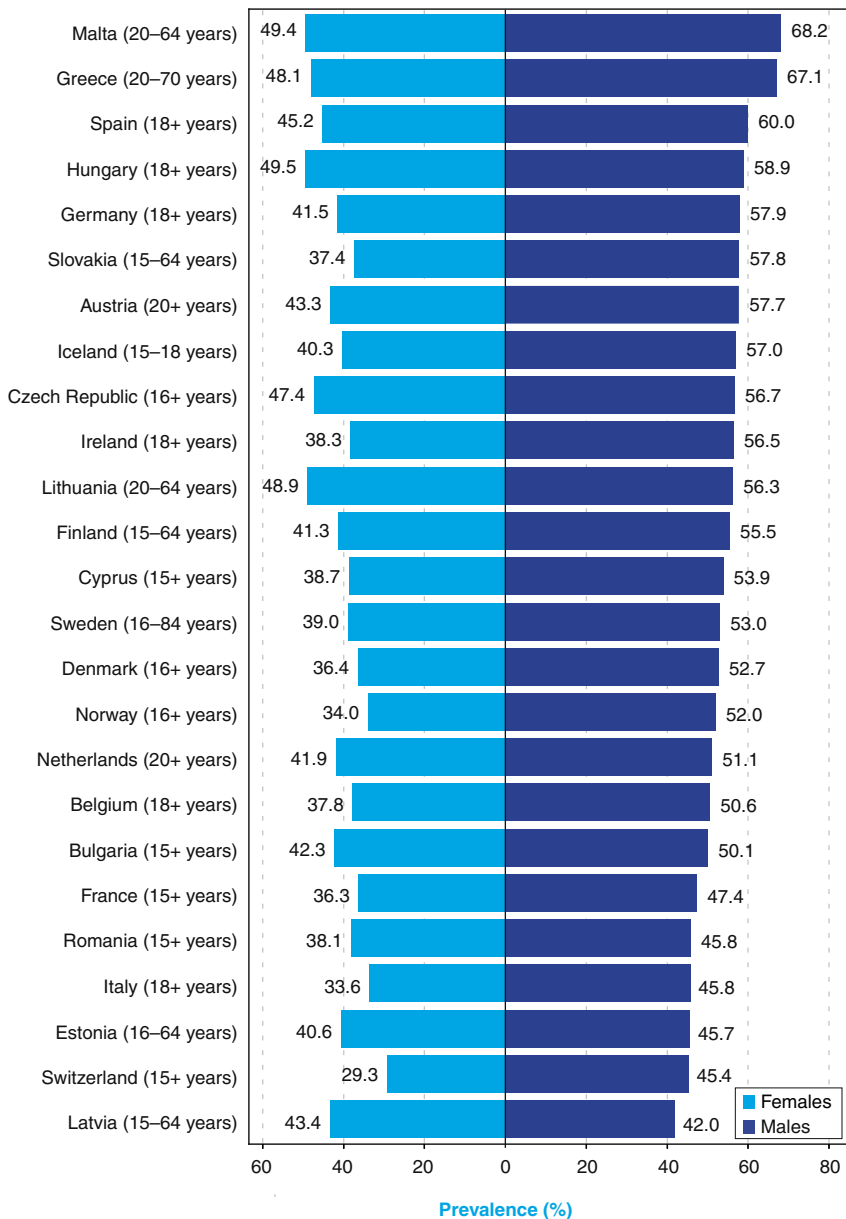


### Females

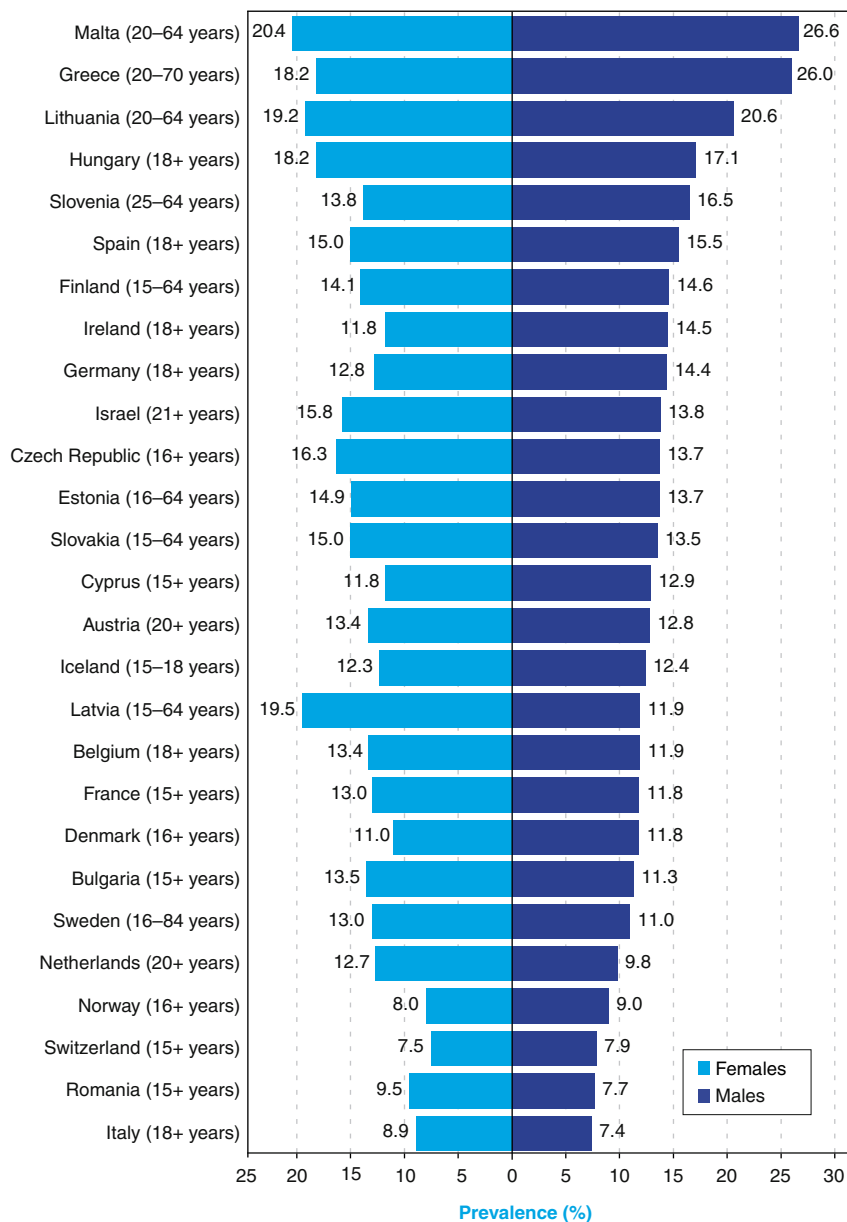




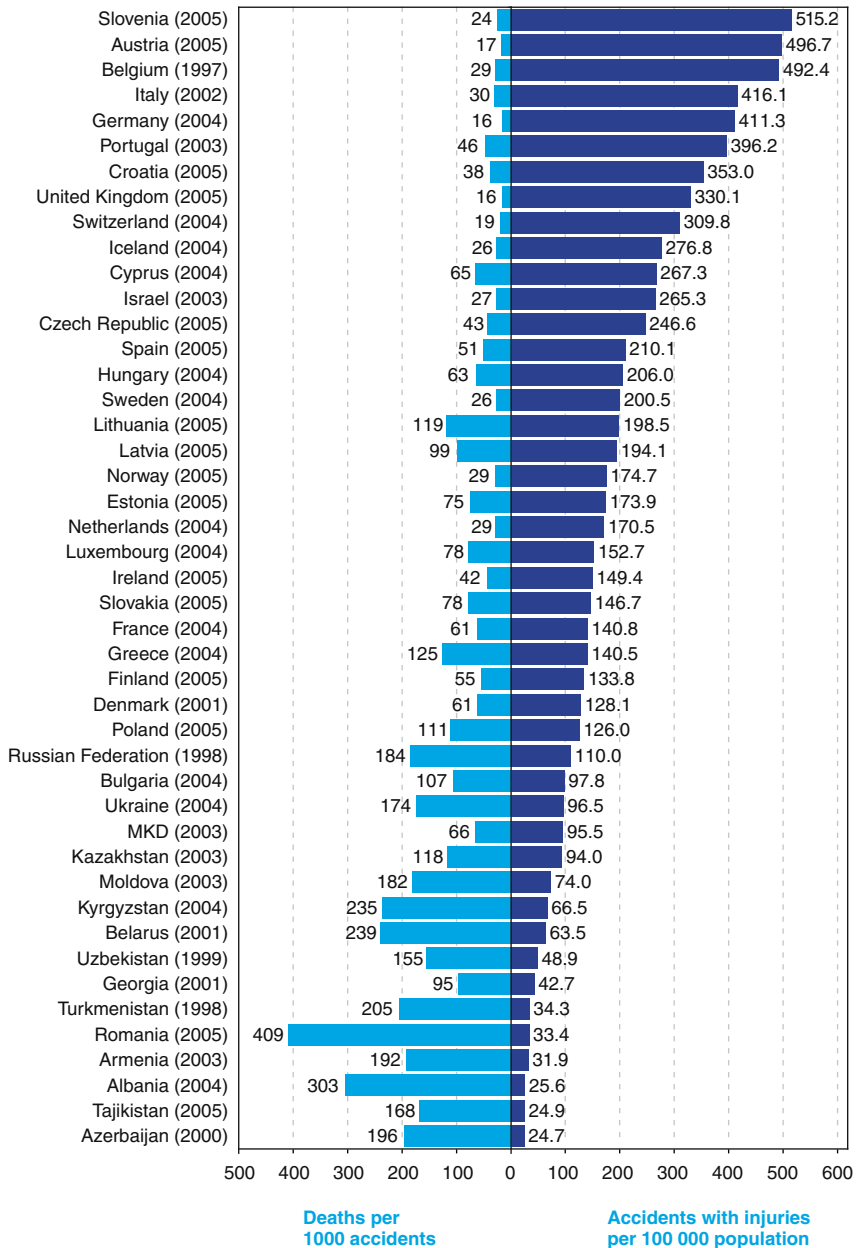
## Prevalence of overweight among adults, latest available year for the period 2000–2006



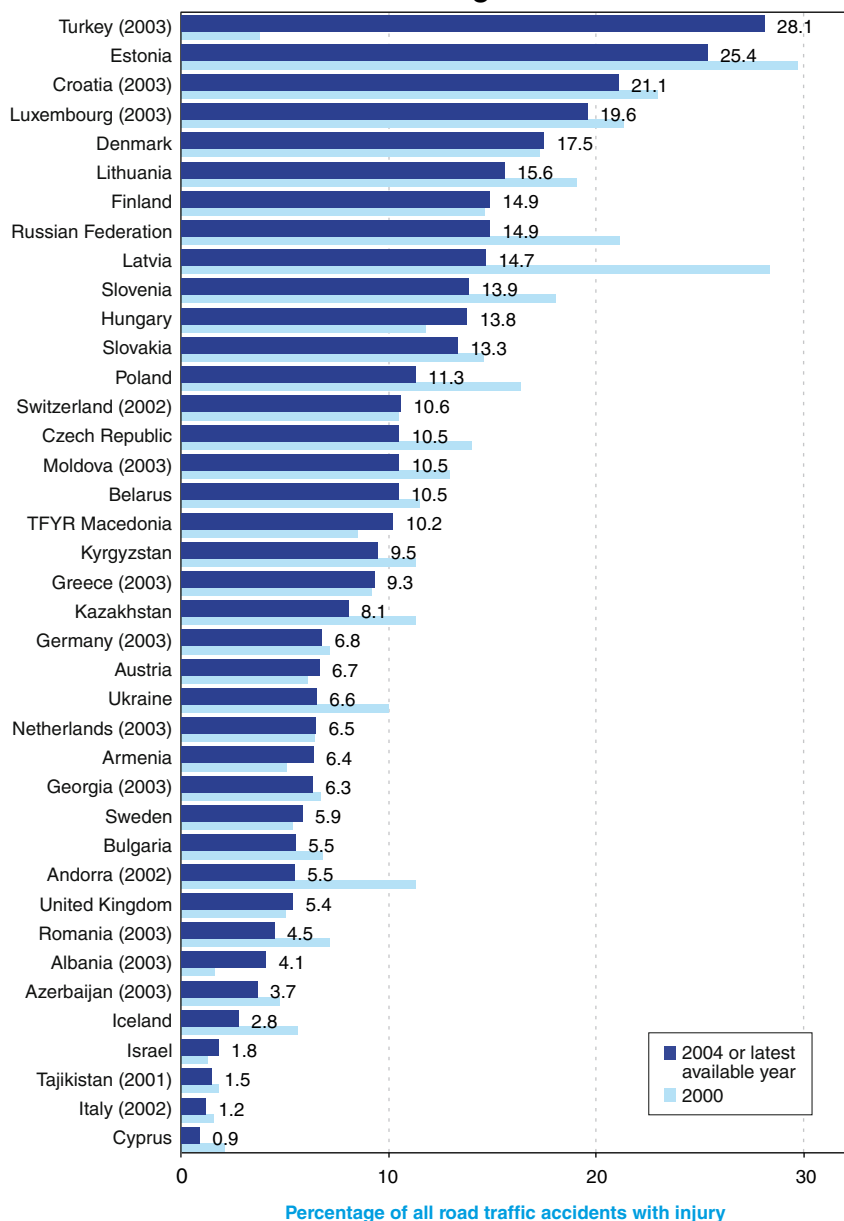
## Prevalence of obesity among adults, latest available year for the period 2000–2006



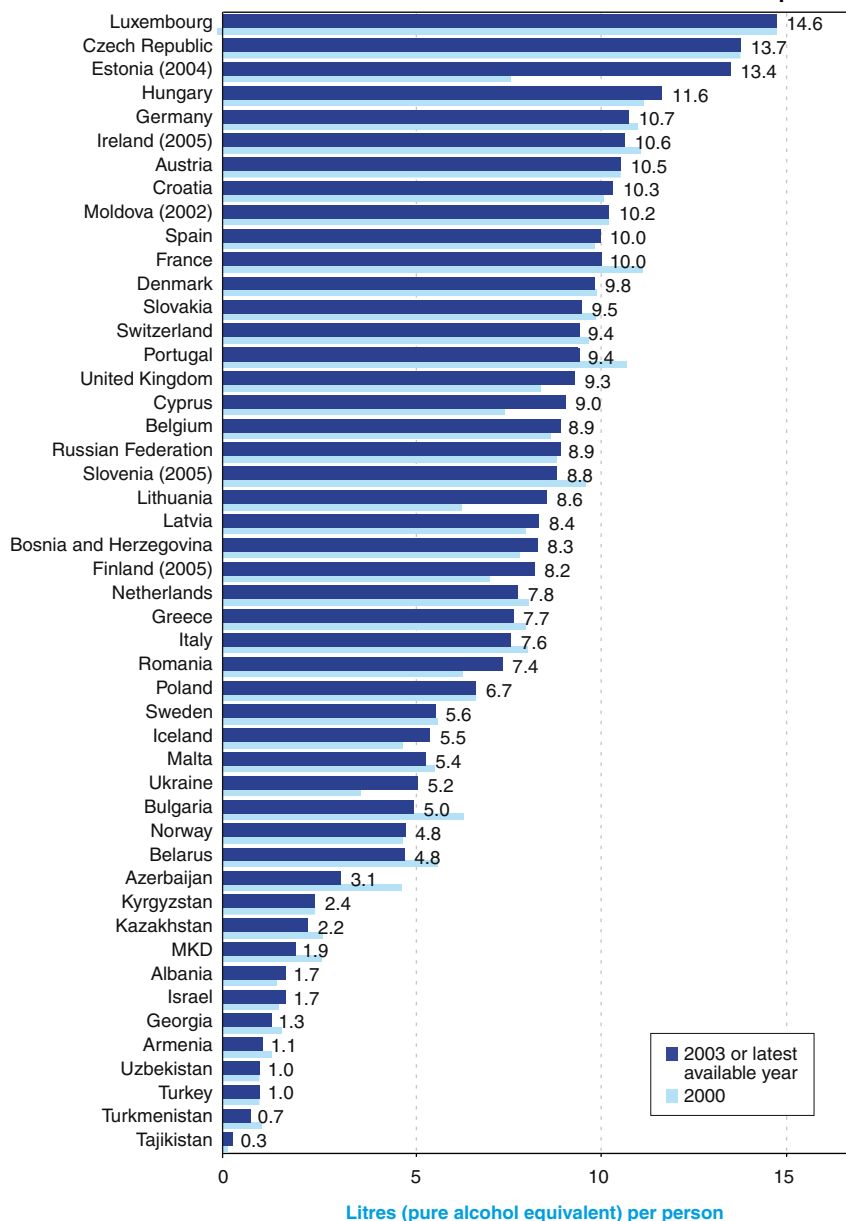
## Injuries and deaths from motor vehicle traffic accidents



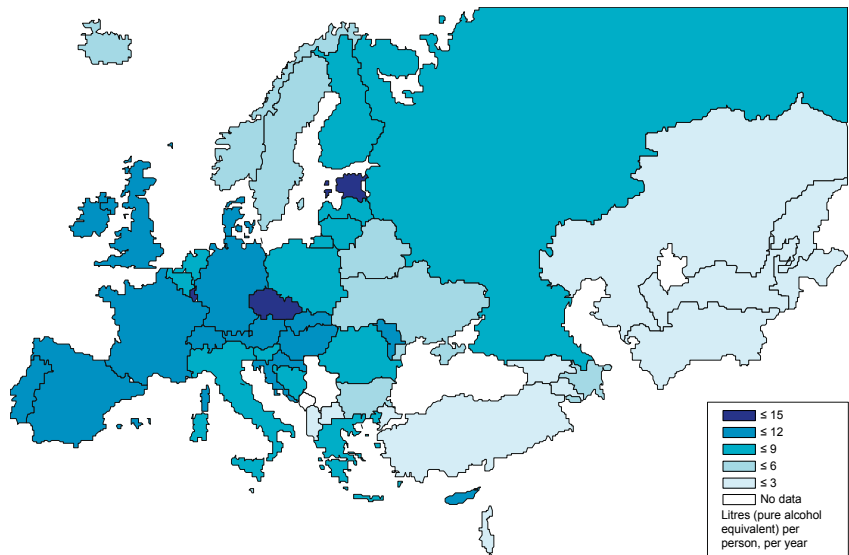
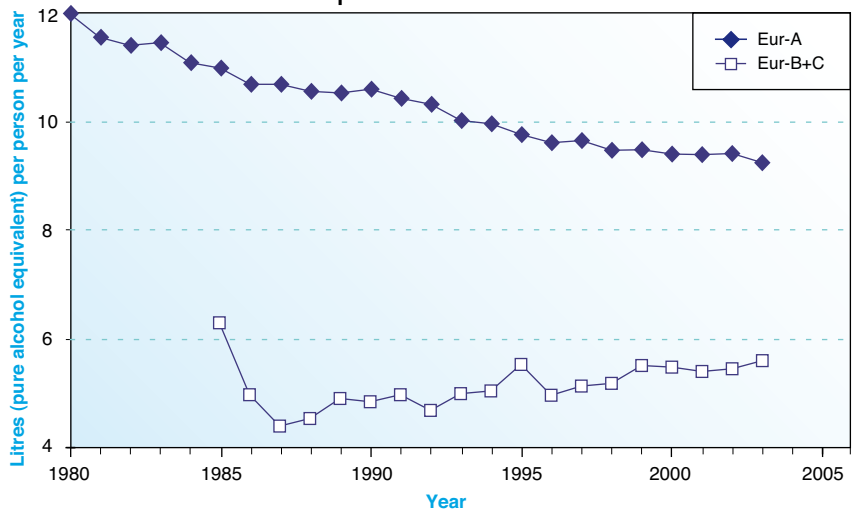
## Road traffic accidents involving alcohol



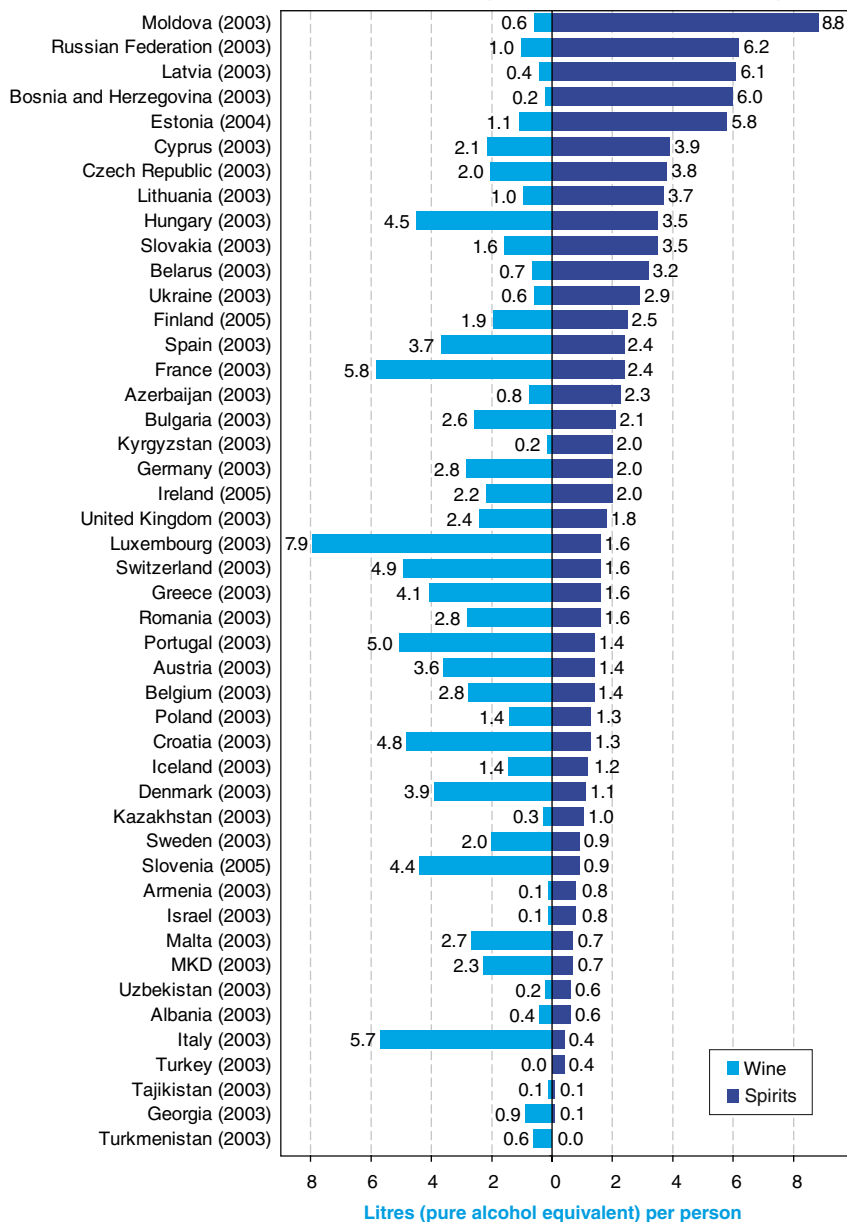
## Total alcohol consumption



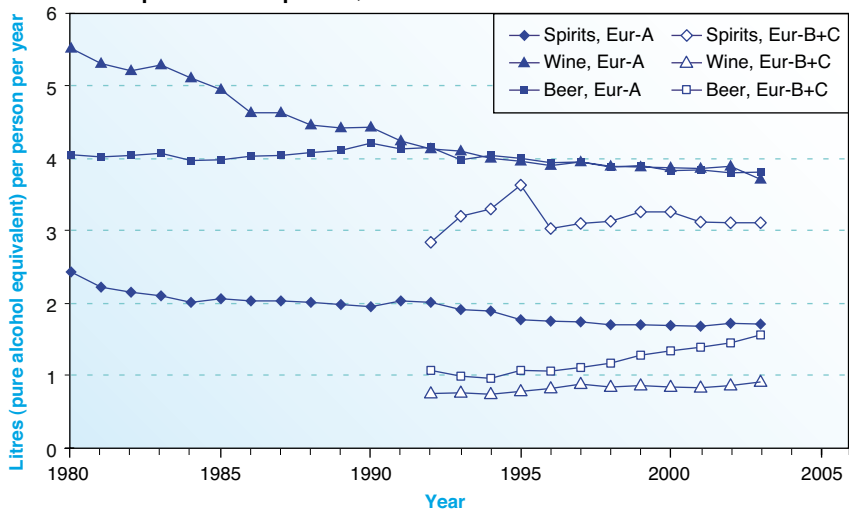
### Total alcohol consumption



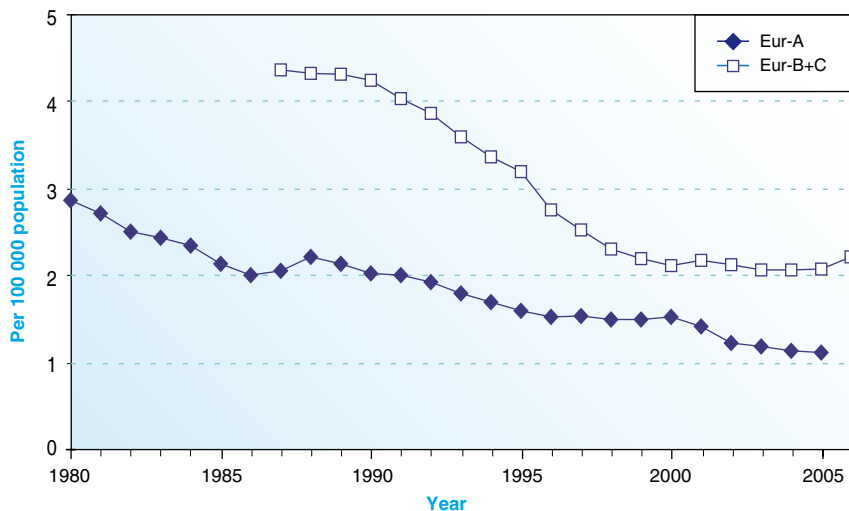
## Consumption of wine and spirits



### Consumption of spirits, wine and beer

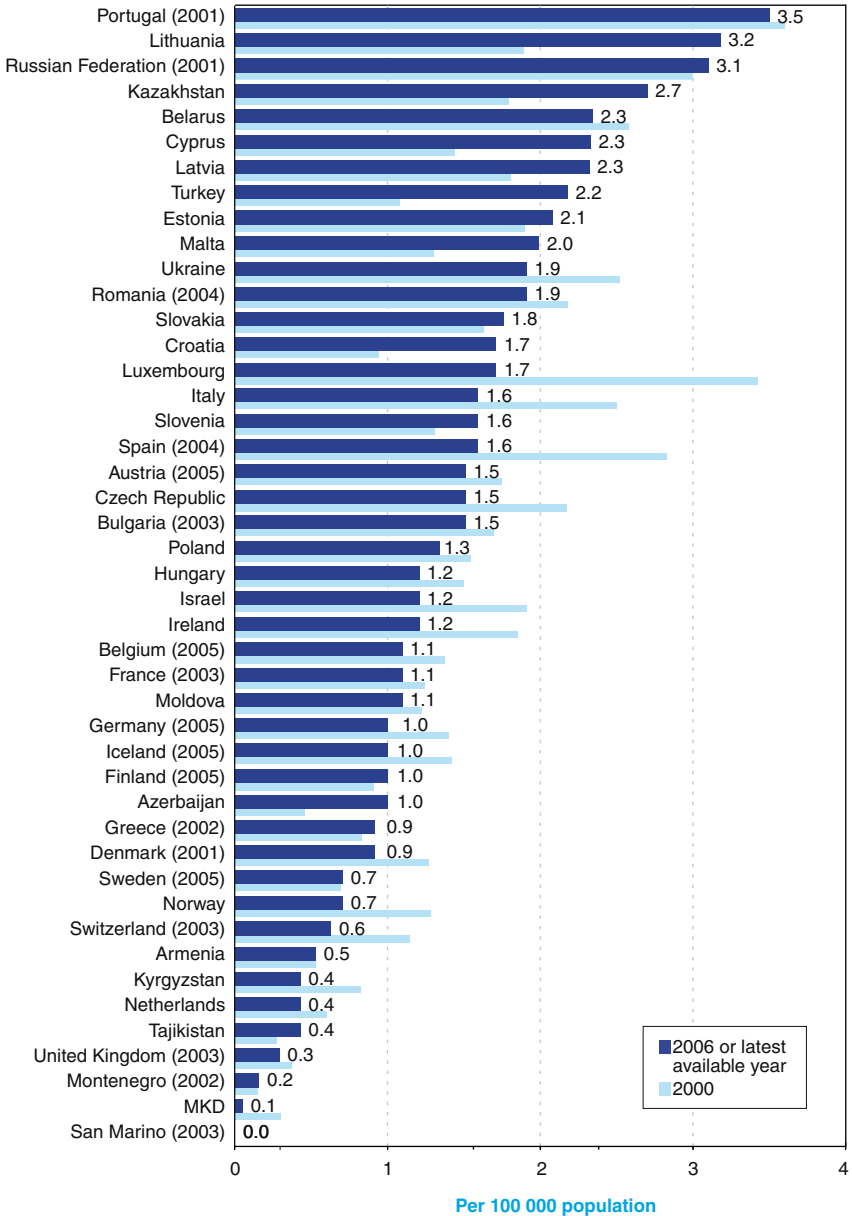


### Deaths from work-related accidents

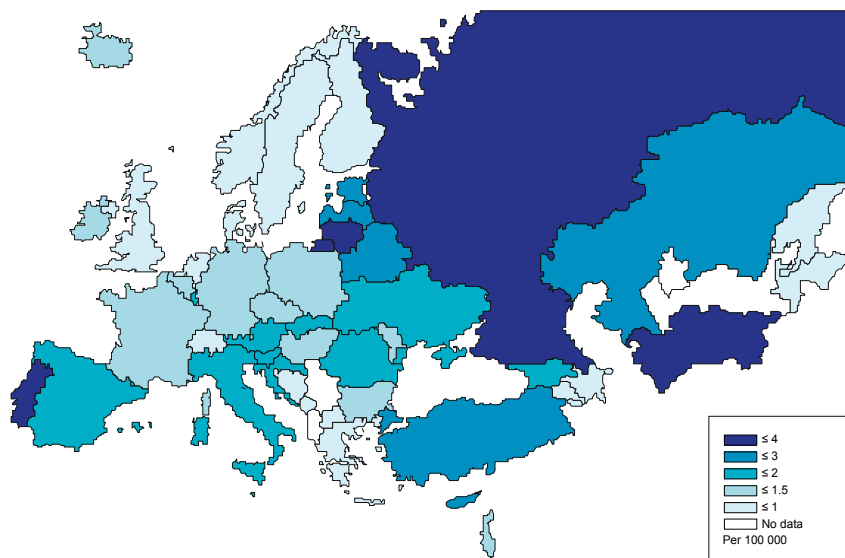




## Deaths from work-related accidents



## Deaths from work-related accidents



## 5. Health care

### Notes

#### **Physicians (pp. 107–108)**

The data show the number of practising physicians working in public or private health services. Countries do not all report the data strictly according to the recommended definitions, and they differ in the way they compile national statistics on employment in the health sector.

The number of physicians per head of population in Eur-A countries in the Region steadily rose until recently. The previously high and increasing rates in Eur-B+C countries declined in the first half of the 1990s and then stabilized.

#### **Dentists (pp. 108–109)**

The data include dentists who have completed university-level studies in dentistry and are actually working in dental care. The gap between average rates for the Eur-A and Eur-B+C groups of countries has steadily grown.

#### **Nurses (pp. 110–111)**

The data show nurses who have completed a programme of nursing education (either basic or university level) and are qualified and authorized in their countries to practise nursing in all settings for health promotion, illness prevention, the care of the sick and rehabilitation.

The international comparability of statistics on nurses is particularly limited, owing to the variations in national definitions and practices. Nevertheless, the average rates for Eur-A and Eur-B+C countries show opposite trends. The rate in Eur-A grew sharply; Eur-B+C showed a much higher rate before 1990, which sharply declined from the early 1990s into the 2000s and then became stable. Thus, the gap between average rates for the two groups of countries has steadily grown since the mid-1990s.

#### **Hospital beds (pp. 111–116)**

The number of available beds includes beds in all hospitals, regardless

of specialty. The main limitation of intercountry comparability is that some countries count nursing homes and similar institutions as hospitals, while others do not.

Most countries show a steady reduction in psychiatric beds. The number of hospital beds per 100 000 population and the average length of stay are clearly declining throughout the Region, but levels in Eur-B+C remain higher than those in Eur-A.

### **Inpatient hospital admissions (pp. 116–117)**

Average inpatient hospital admissions rates show opposite trends in Eur-A and Eur-B+C. The previously high rates in Eur-B+C dropped during the 1990s, but increased again since 1998; the rates for Eur-A rose until 1998 and then declined. Nevertheless, admission rates vary significantly between countries.

### **Childhood vaccination (p. 118)**

The bar chart shows the percentage of infants reaching their first birthday in the given calendar year who have been fully vaccinated (with 3 doses) against diphtheria and the percentage of children reaching their second birthday who have been vaccinated against measles.

### **Caesarean sections (pp. 119–120)**

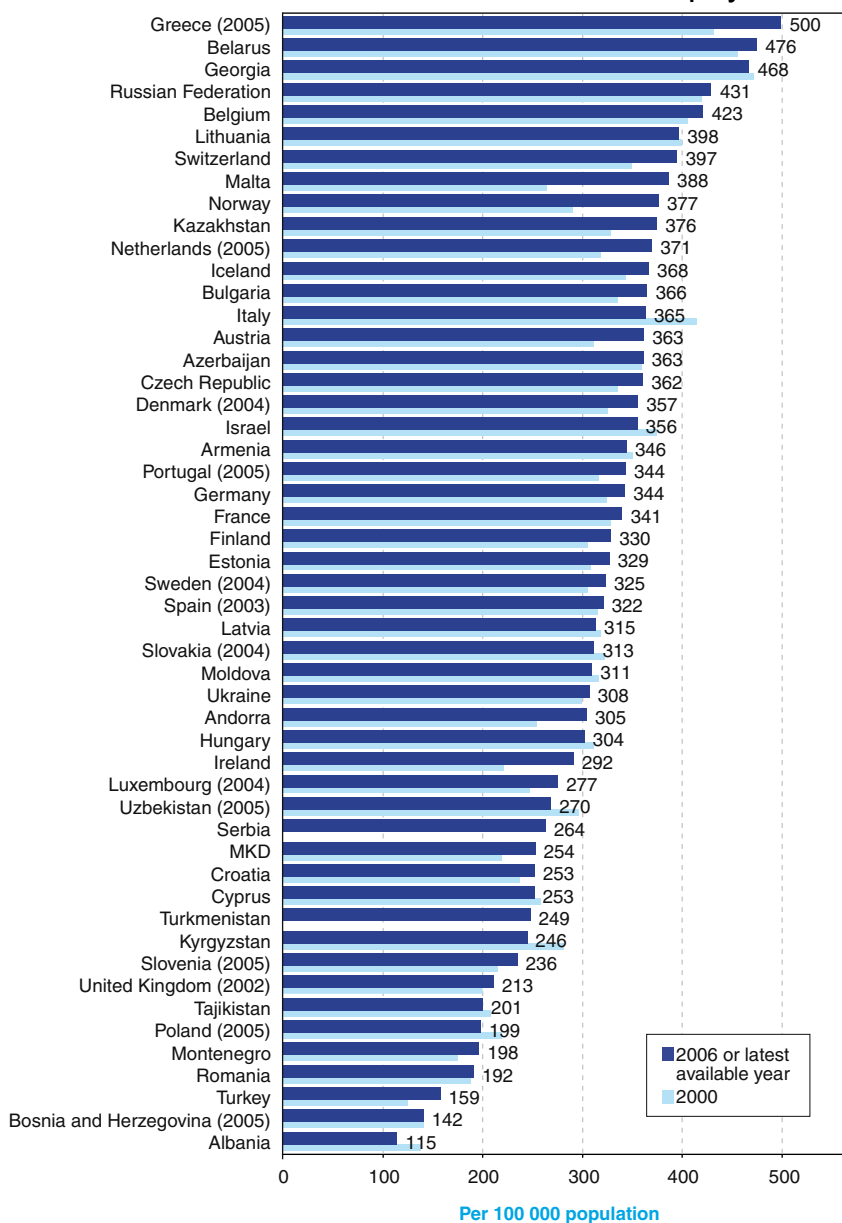
The number of Caesarean sections performed is rising throughout the Region. The rates are highest in the western and central countries, and lowest in the eastern ones.

### **Health expenditure (pp. 120–123)**

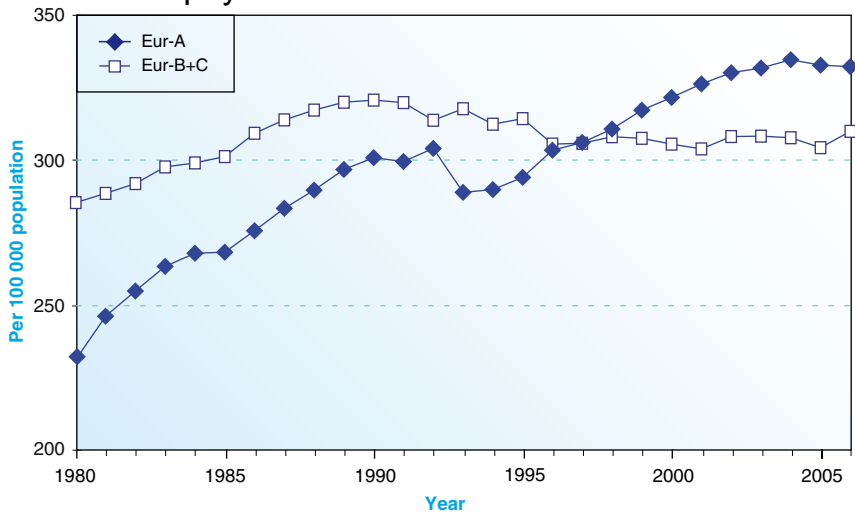
Estimates for this indicator were produced by WHO. These estimates are, to the extent possible, based on the national health accounts classification (see *The world health report 2006 (4)* for details). The sources include both nationally reported data and estimates from international organizations – such as the International Monetary Fund, the World Bank, the United Nations and OECD – so they may differ somewhat from official national statistics reported by countries.

Health expenditure, both as a percentage of gross domestic product (GDP) and in international dollars (purchasing power parities expressed in US\$: US\$ PPP) per person, varies significantly between countries. Expenditure is increasing faster in Eur-A than in Eur-B+C, thus further increasing the east–west gap.

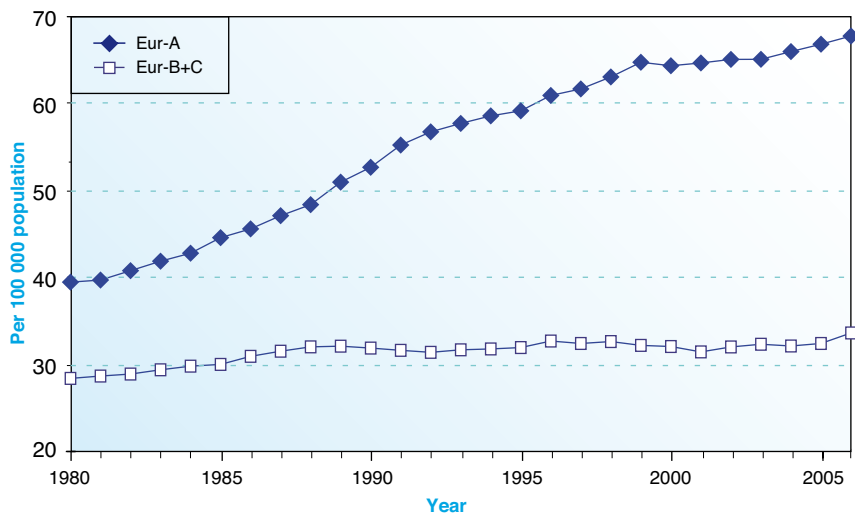
## Number of physicians



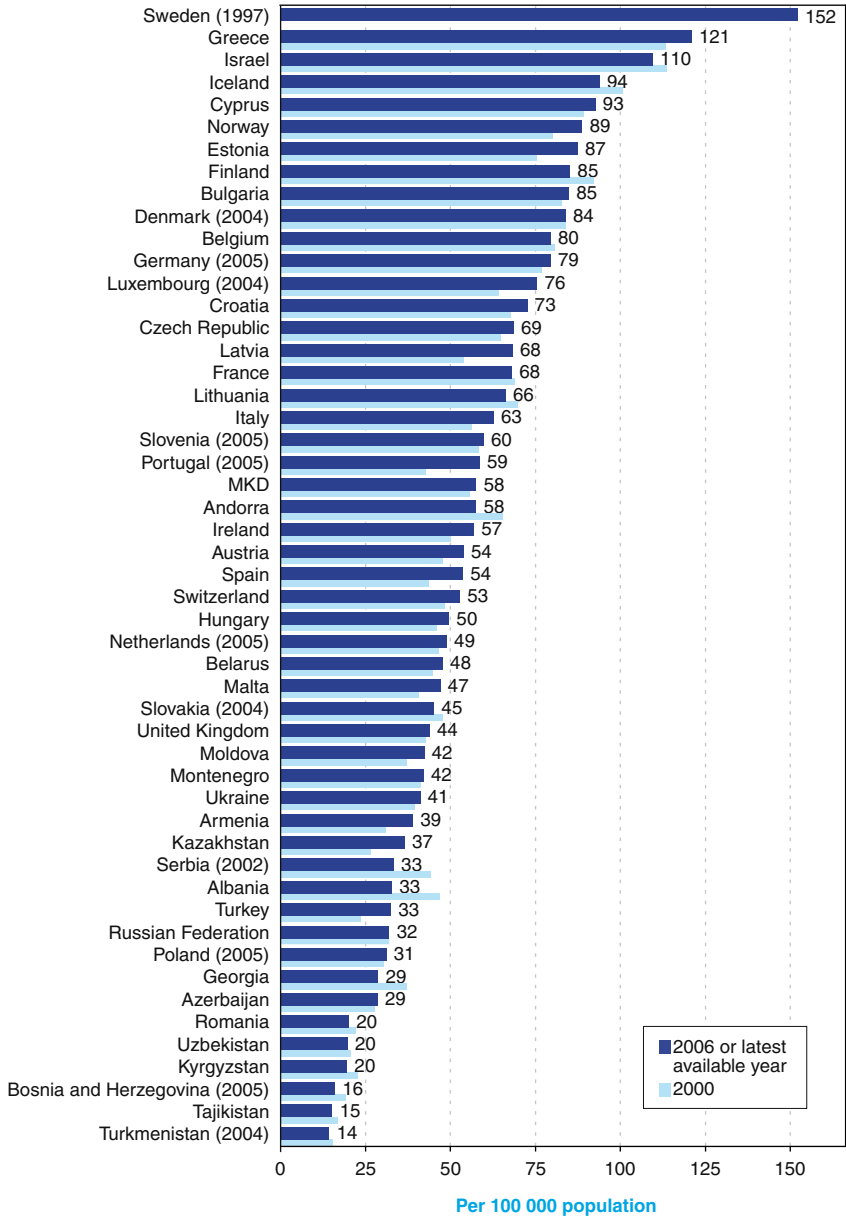
### Number of physicians



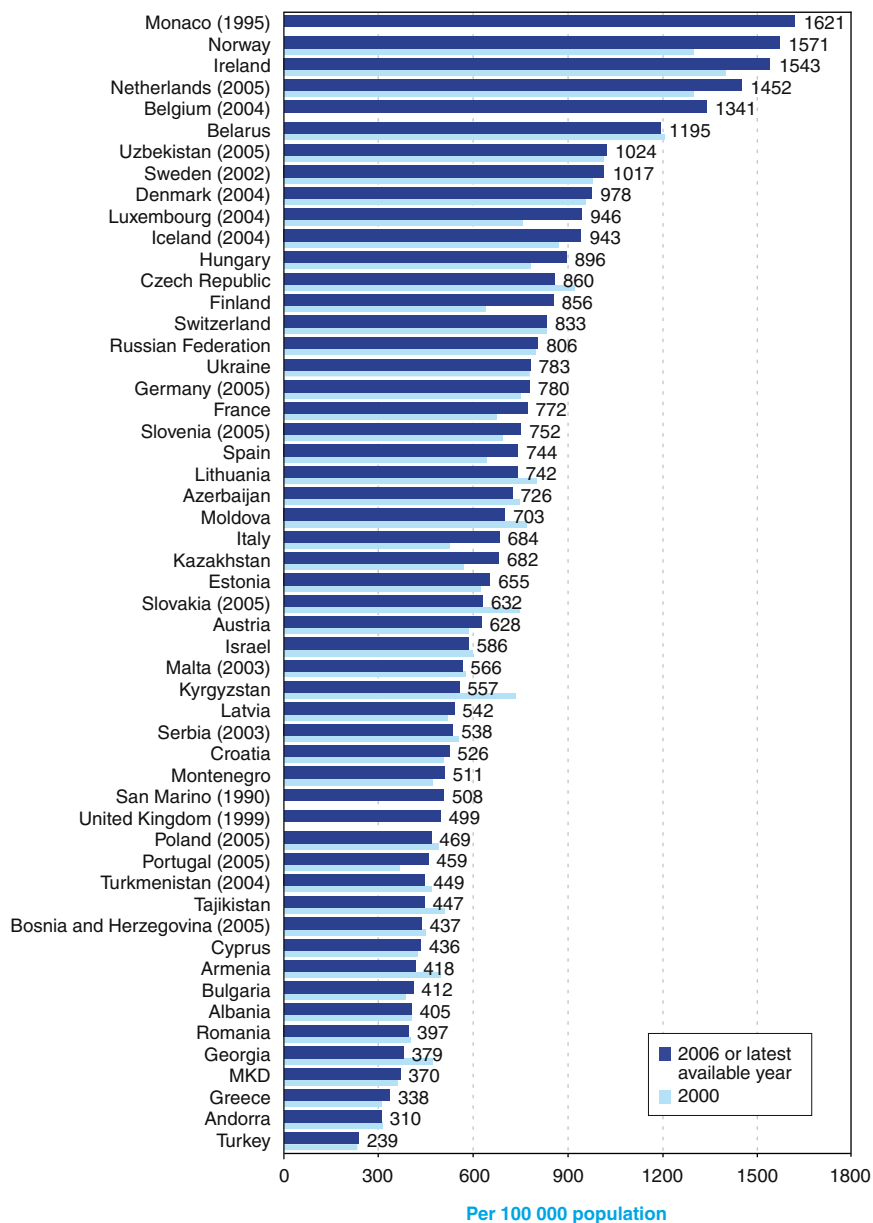
### Number of dentists



### Number of dentists

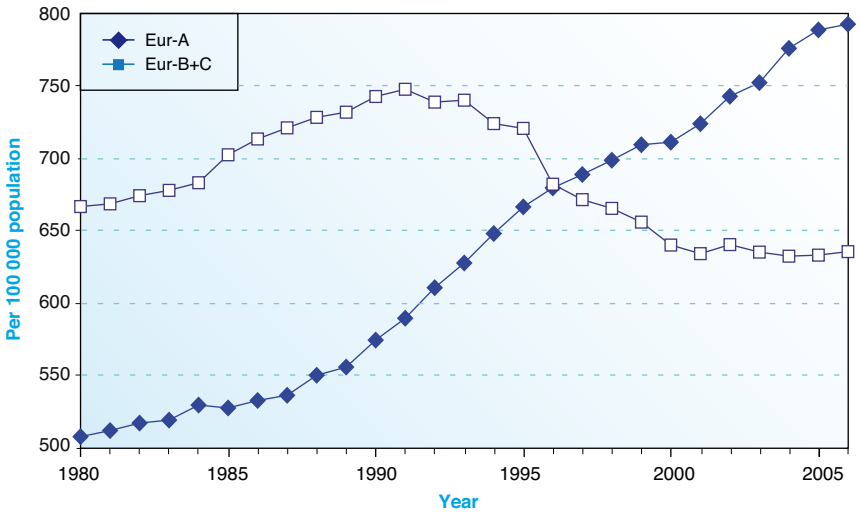


## Number of nurses

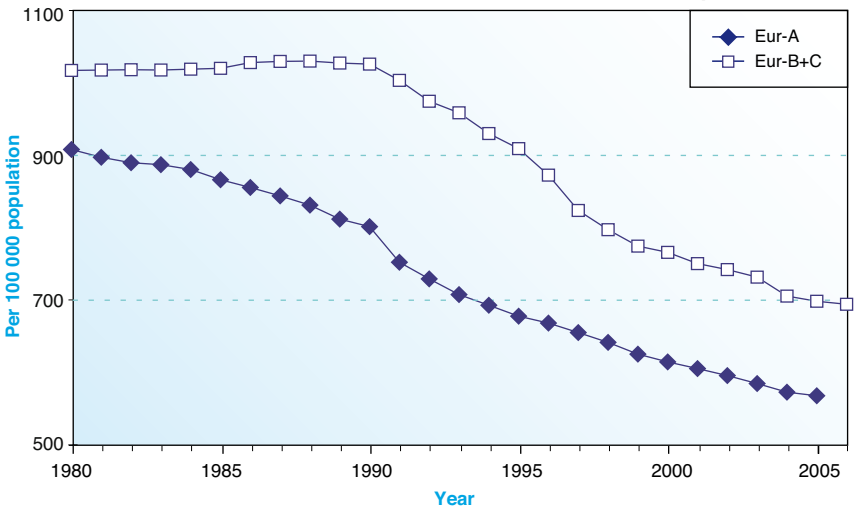




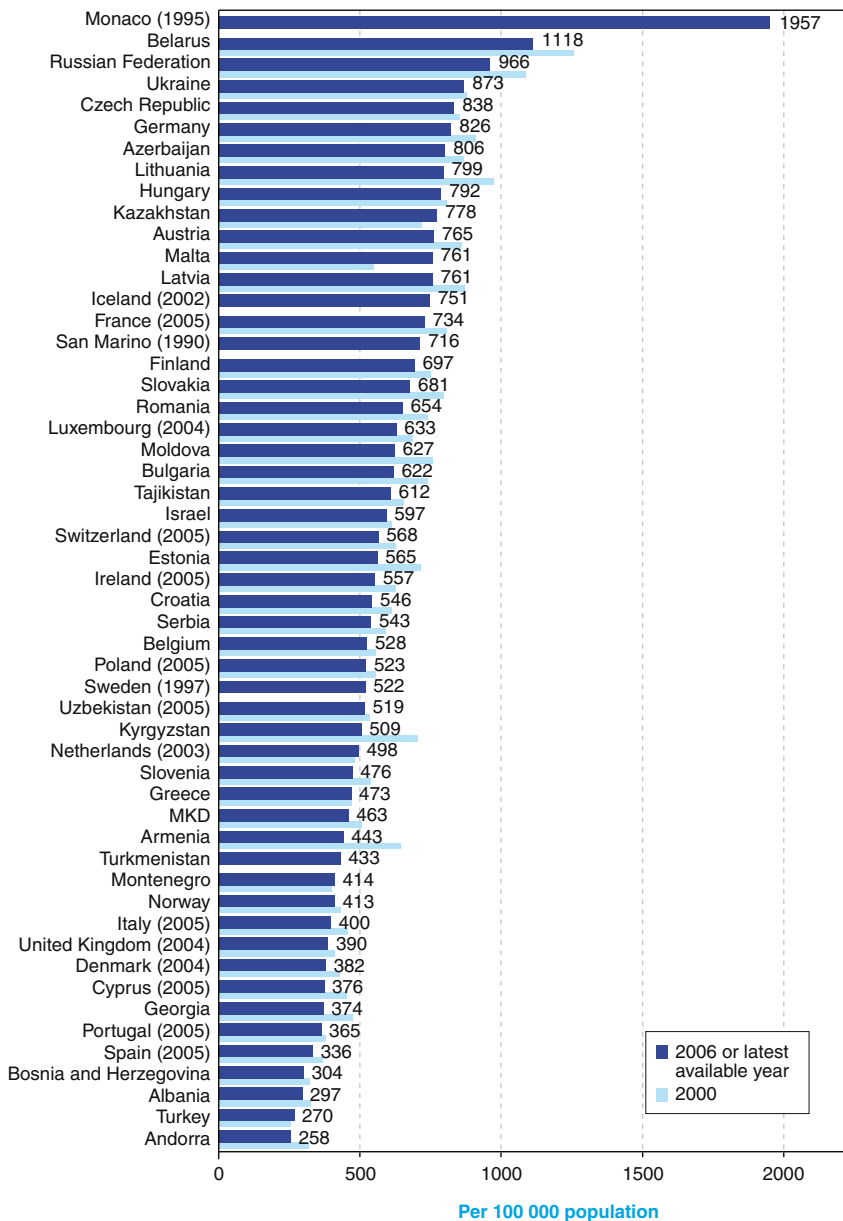
### Number of nurses



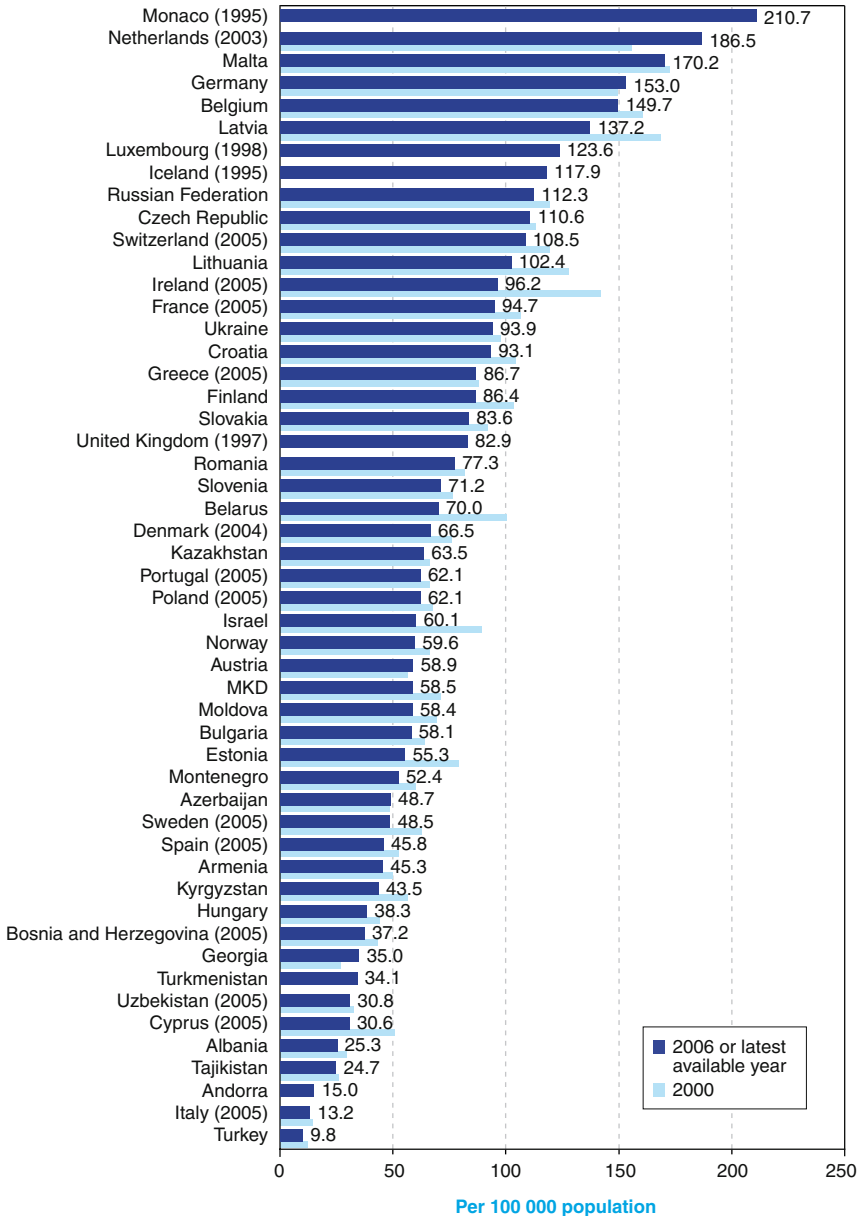
### Hospital beds



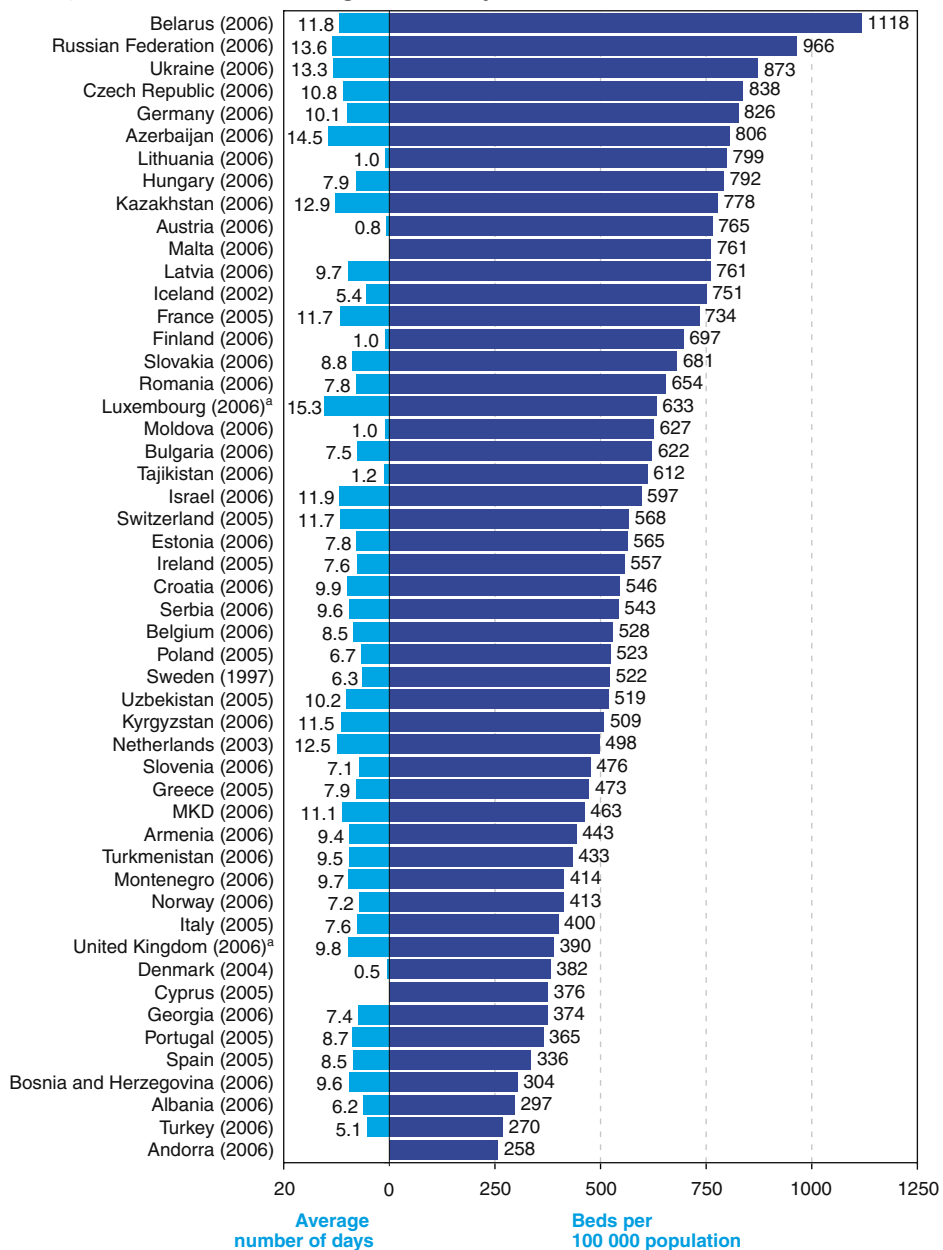
## Hospital beds



### Psychiatric hospital beds

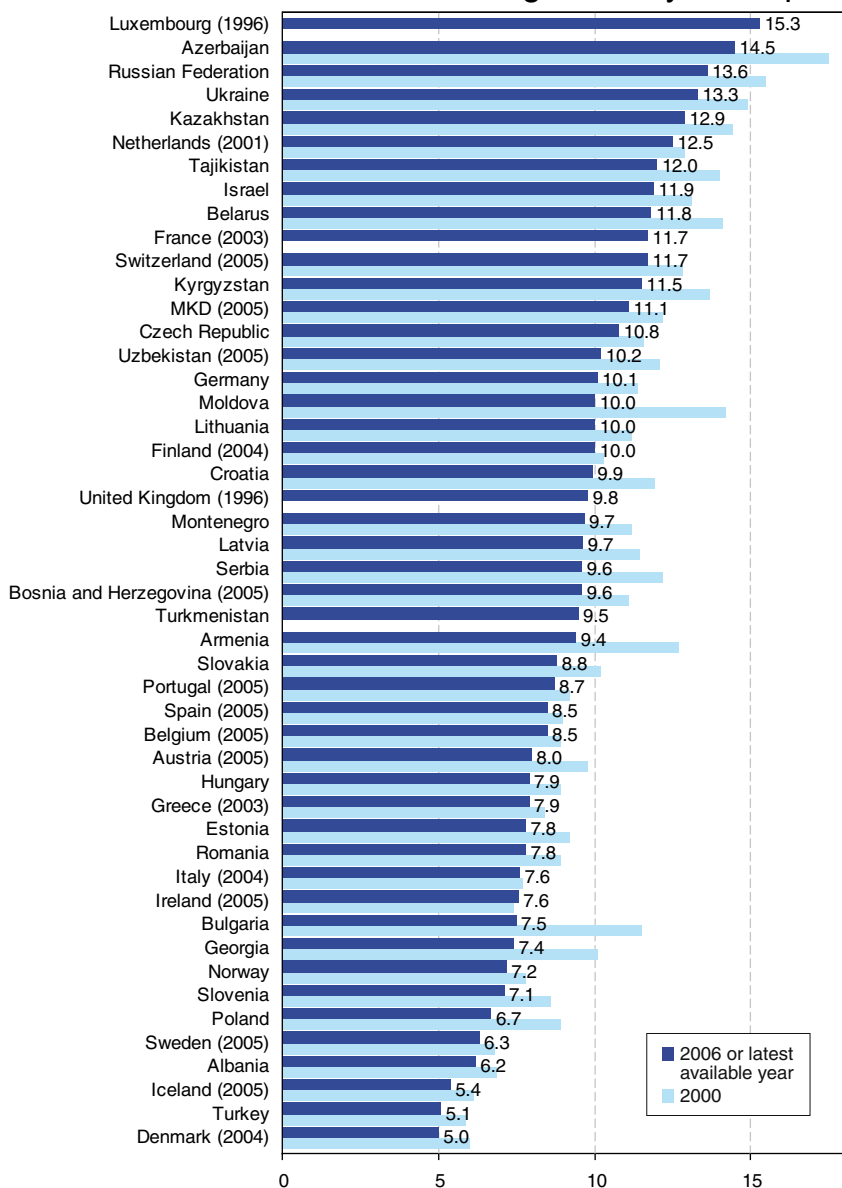


## Hospital beds and length of stay

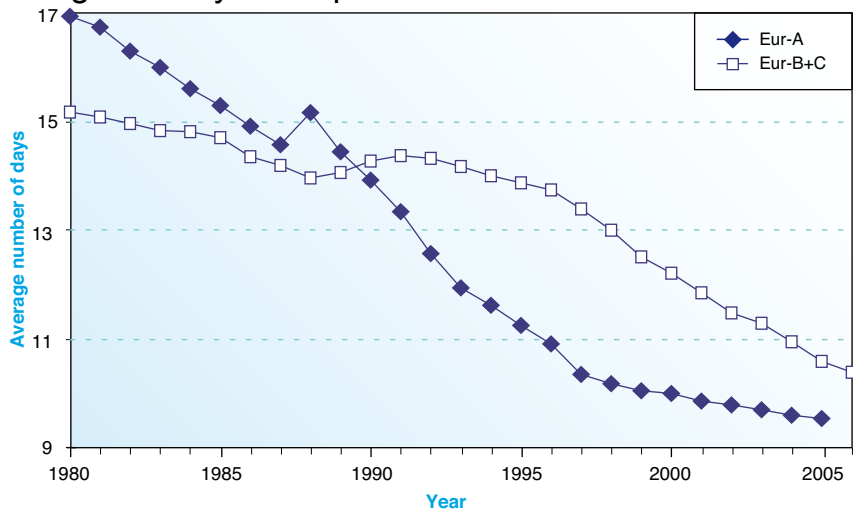


<sup>a</sup> For Luxembourg and United Kingdom, the data for length of stay come from 1996.

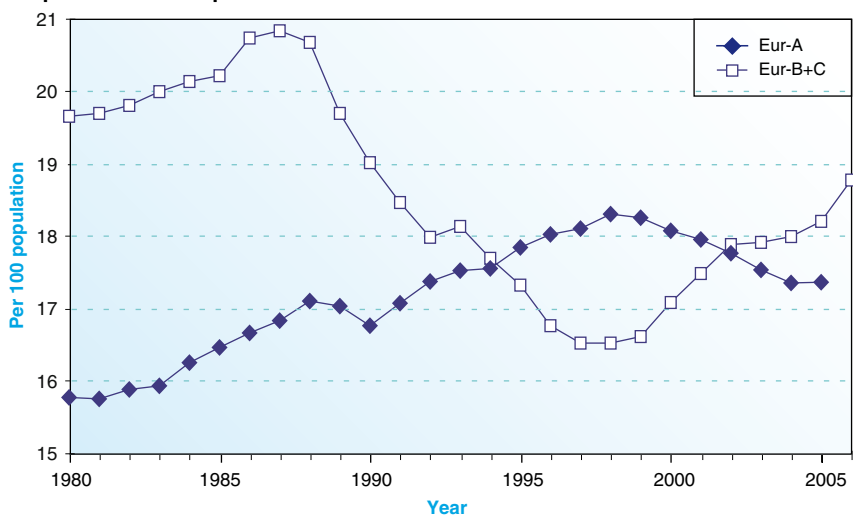
## Length of stay in hospital



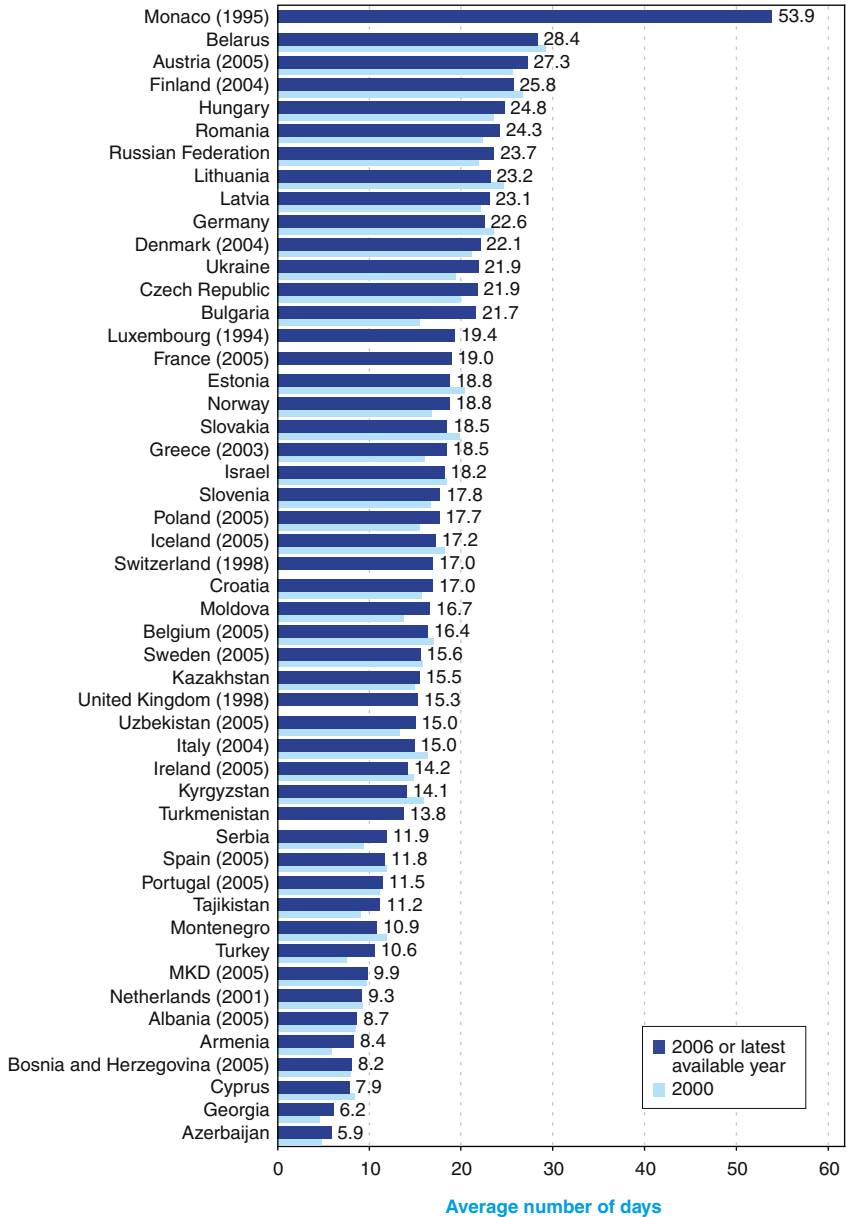
### Length of stay in hospital



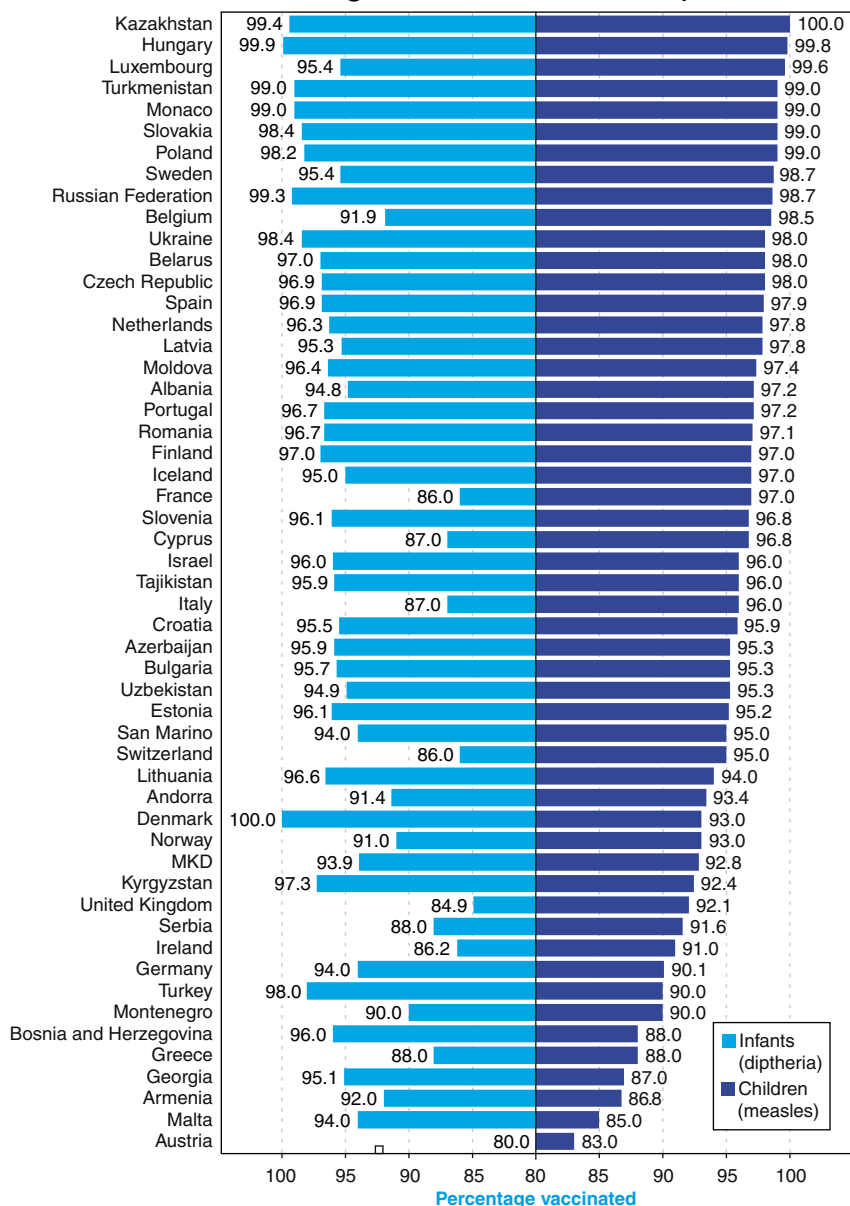
### Inpatient hospital admissions



### Inpatient hospital admissions

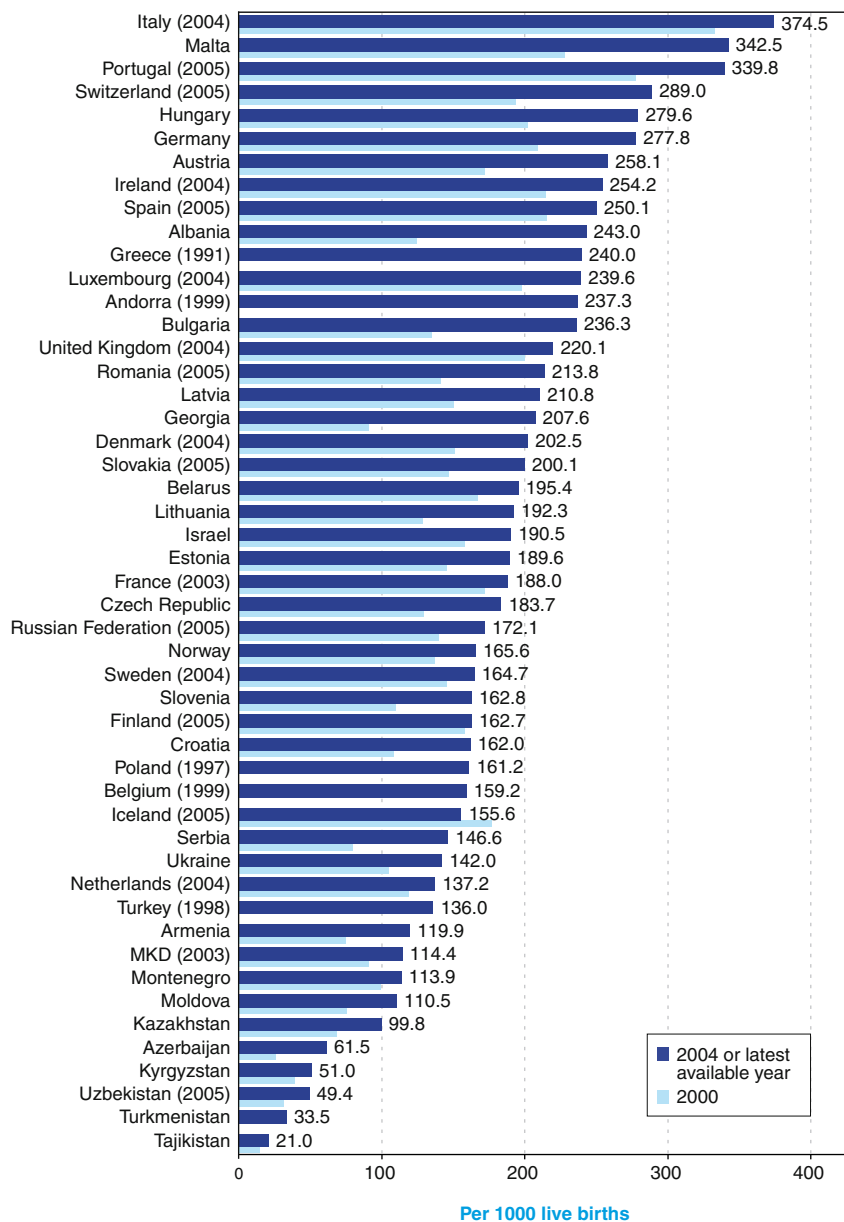


## Children vaccinated against measles and diphtheria

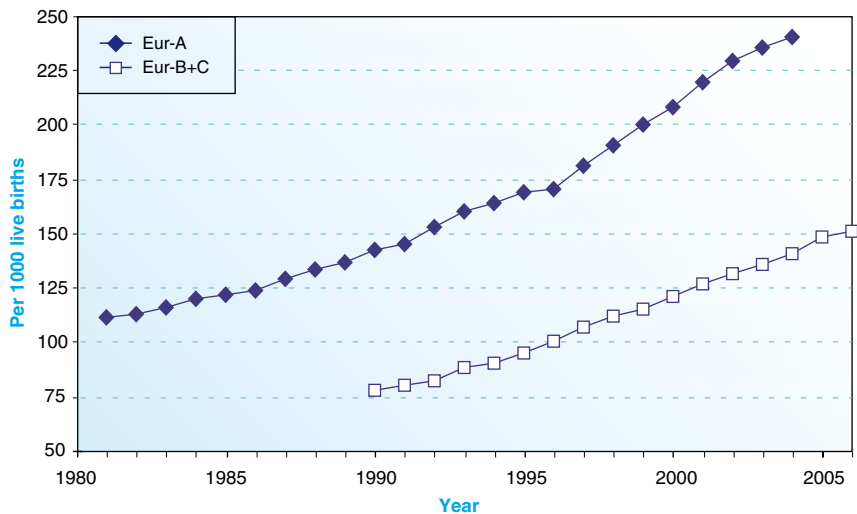




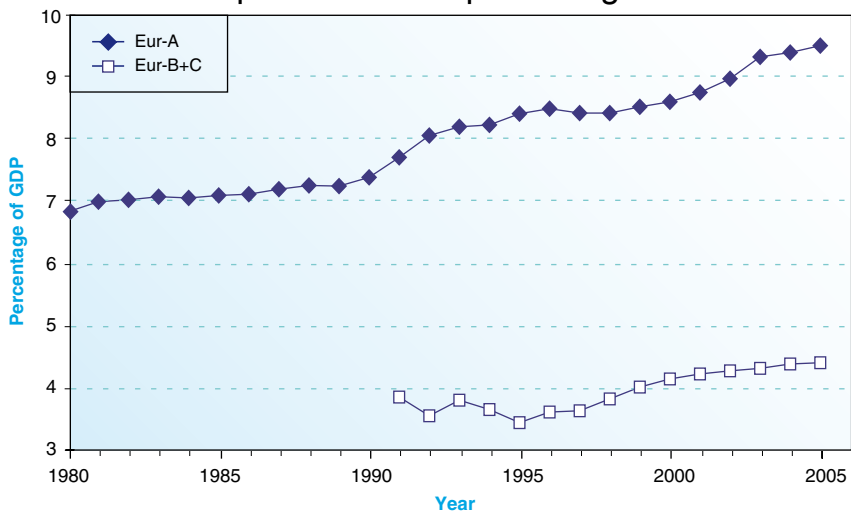
## Caesarean sections



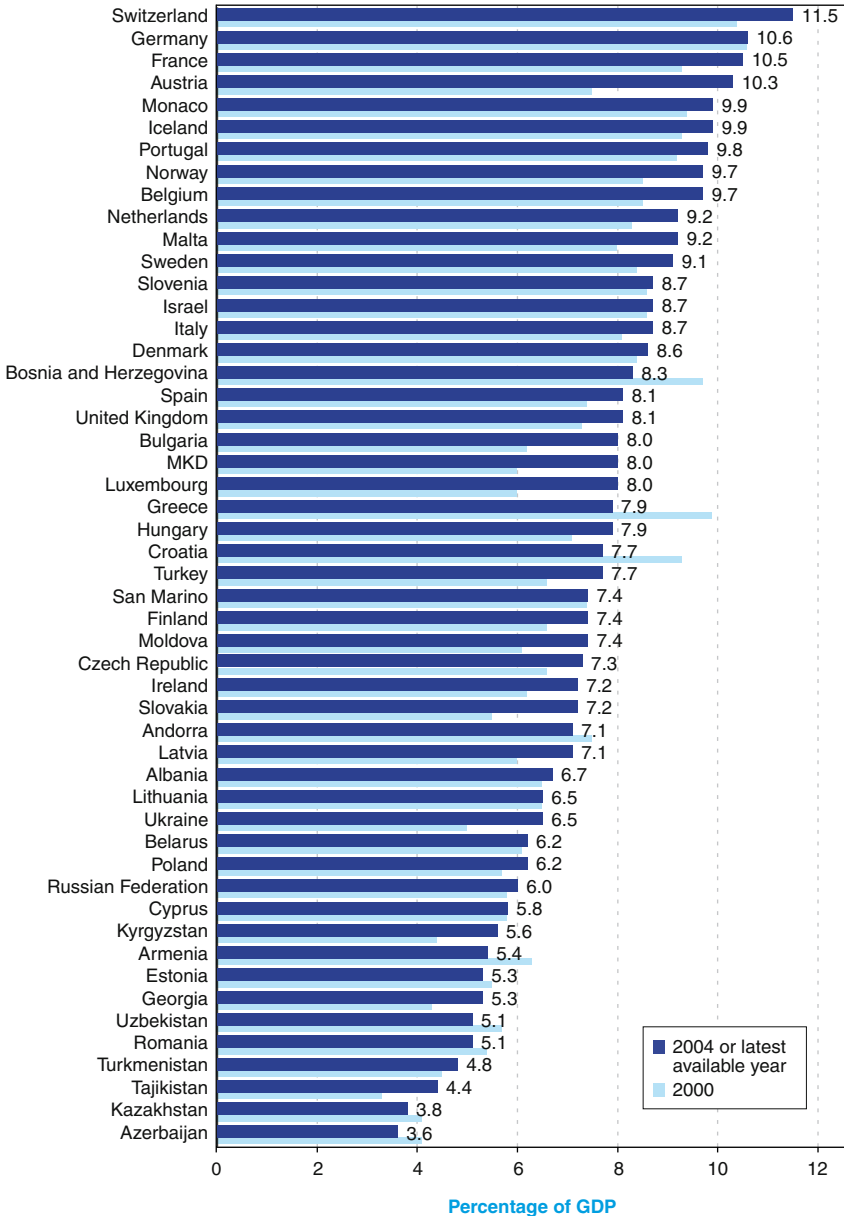
## Caesarean sections



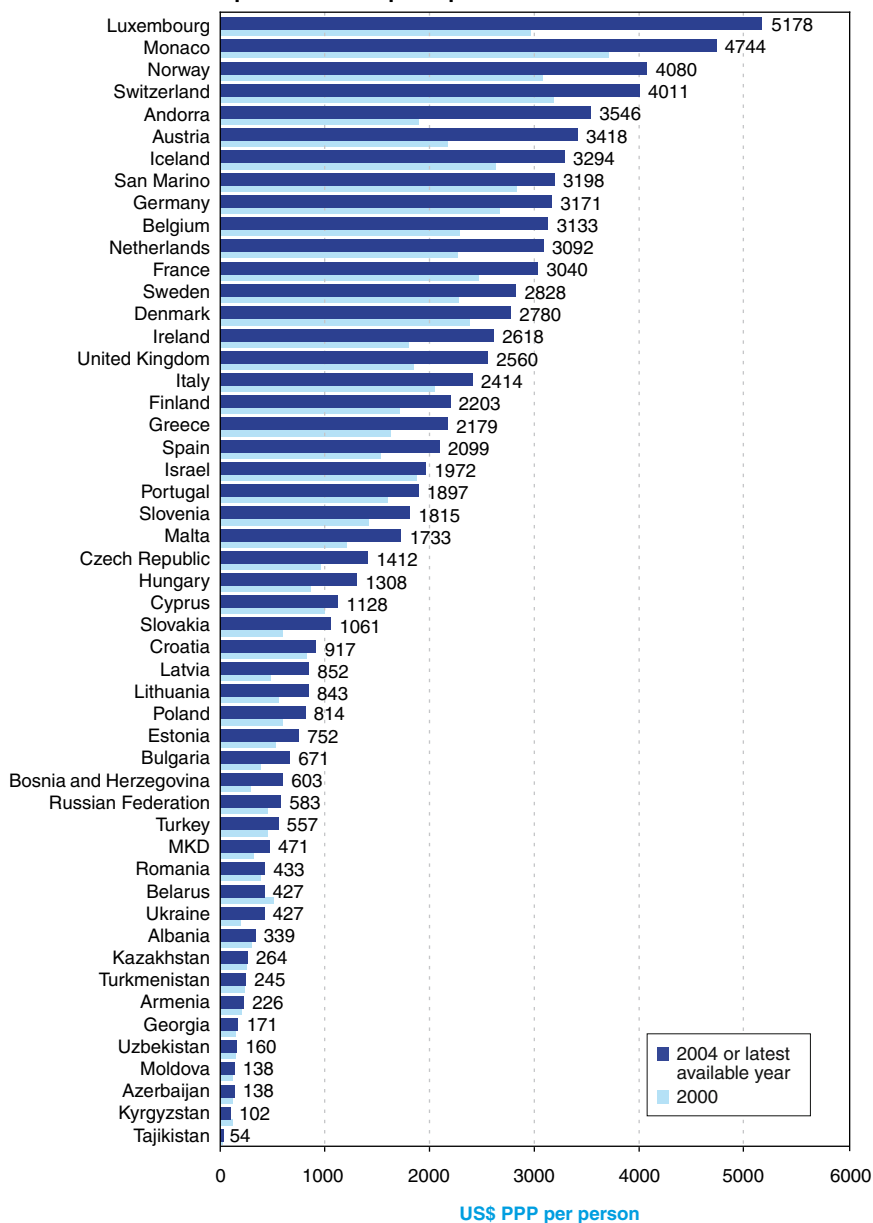
## Total health expenditure as a percentage of GDP



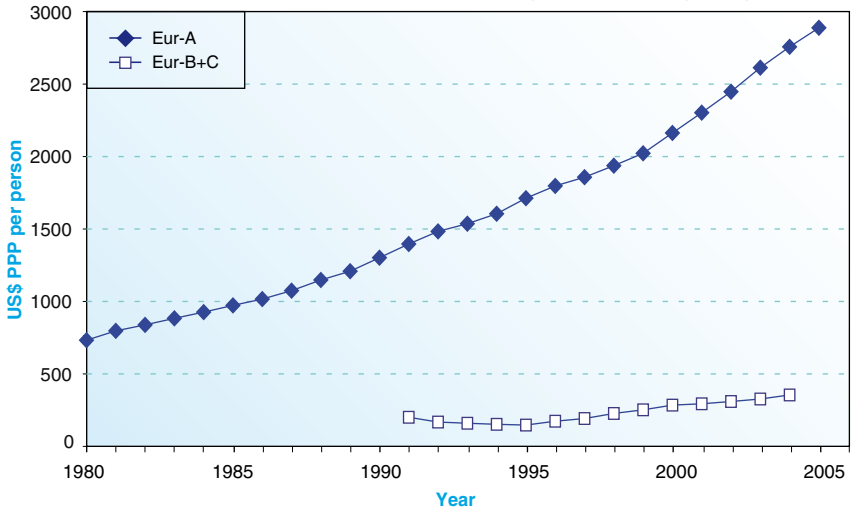
## Total health expenditure as a percentage of GDP



## Total health expenditure per person



### Total health expenditure per person





## References

1. European Health for All database (HFA-DB) [online database]. Copenhagen, WHO Regional Office for Europe, 2008 (<http://www.euro.who.int/hfadb>, accessed 23 April 2008).
2. WHOSIS (WHO Statistical Information System) [web site]. Geneva, World Health Organization, 2008 (<http://www.who.int/whosis/en/>, accessed 23 April 2008).
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4. *The world health report 2006. Working together for health.* Geneva, World Health Organization, 2006 (<http://www.who.int/entify/whr/2006/en/index.html>, accessed 23 April 2008).
5. *The world health report 2004. Changing history.* Geneva, World Health Organization, 2004 (<http://www.who.int/whr/2004/en/index.html>, accessed 23 April 2008).
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8. European Centre for the Epidemiological Monitoring of AIDS. EuroHIV. HIV/AIDS surveillance in Europe [web site]. Stockholm, European Centre for Disease Prevention and Control, 2008 (<http://www.eurohiv.org>, accessed 16 May 2008).
9. *Prevalence of diabetes in the WHO European Region.* Geneva, World Health Organization, 2008 ([http://www.who.int/diabetes/facts/world\\_figures/en/index4.html](http://www.who.int/diabetes/facts/world_figures/en/index4.html), accessed 16 May 2008).
10. WHO Oral Health Country/Area Profile Programme [web site]. Geneva, World Health Organization, 2008 (<http://www.whocollab.od.mah.se>, accessed 16 May 2008).

11. HBSC. Health Behaviour in School-aged Children. A World Health Organization cross-national study [web site]. Edinburgh, HBSC International Coordinating Centre, 2008 (<http://www.hbsc.org/index.html>, accessed 16 May 2008).
12. *Statistics of road traffic accidents in Europe and North America*. Geneva, United Nations Economic Commission for Europe, 2008 (<http://www.unece.org/trans/main/wp6/transstatpub.html>, accessed 16 May 2008).





The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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 Austria  
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## ATLAS OF HEALTH IN EUROPE

This statistical atlas presents key health figures for the WHO European Region. They cover basic data on populations, births, deaths, life expectancy and diseases, lifestyle and environmental indicators such as drinking, smoking and traffic accidents, and types and levels of health care.

Each indicator is presented as a map to show overall regional variations, a bar chart to indicate country rankings and a time chart to show trends over time in three main country groupings. Using the WHO Regional Office for Europe's unique Health for All database, combined with the best alternative sources of data around the Region, this atlas offers the most comprehensive overview of health in Europe. In a handy size, this atlas is designed to be an easily accessible resource at all times, in the office or on the road.

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