



EUROPE

Highlights on health in Latvia 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 Latvia in 2002 can expect to live 70.3 years on average: 76.0 years if female and 65.7 years if male. Life expectancy (LE) in Latvia is 10 years lower than the Eur-A average for males, and almost five years lower for females. Latvian males can expect 1.5 more years of life than the Eur-B+C average and females, 2.5 more years. Latvians spend on average 7.5 years (10.6% of LE) with illness. Latvia, along with other Baltic countries, has a large gender differential in expected healthy years because overall LE among females is so much higher than among males.

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

Both infant and neonatal mortality in Latvia halved between the mid-1990s and 2003, and the most recent rates remain below the Eur-B+C average, but above the Eur-A average.

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)

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

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

Main causes of death

In 2003, selected main non-communicable diseases accounted for about 78% of all deaths in Latvia (53% of all deaths were caused by diseases of the circulatory system and 17% by cancer). External causes were attributed to about 12% of all deaths and communicable diseases to less than 1%. Average mortality rates across age groups in were lower for both males and females (–14% and –16%, respectively) than the Eur-B+C averages. The most recent mortality rate for males was 88% higher than the Euro-A average, and the rate for females was 61% higher. Excess mortality can be seen in all age groups. Mortality from cardiovascular diseases is below the Eur-B+C average, the rate for cancer above it, and the rate for external causes and poisoning in the same range; all of them are clearly above the Eur-A averages.

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)

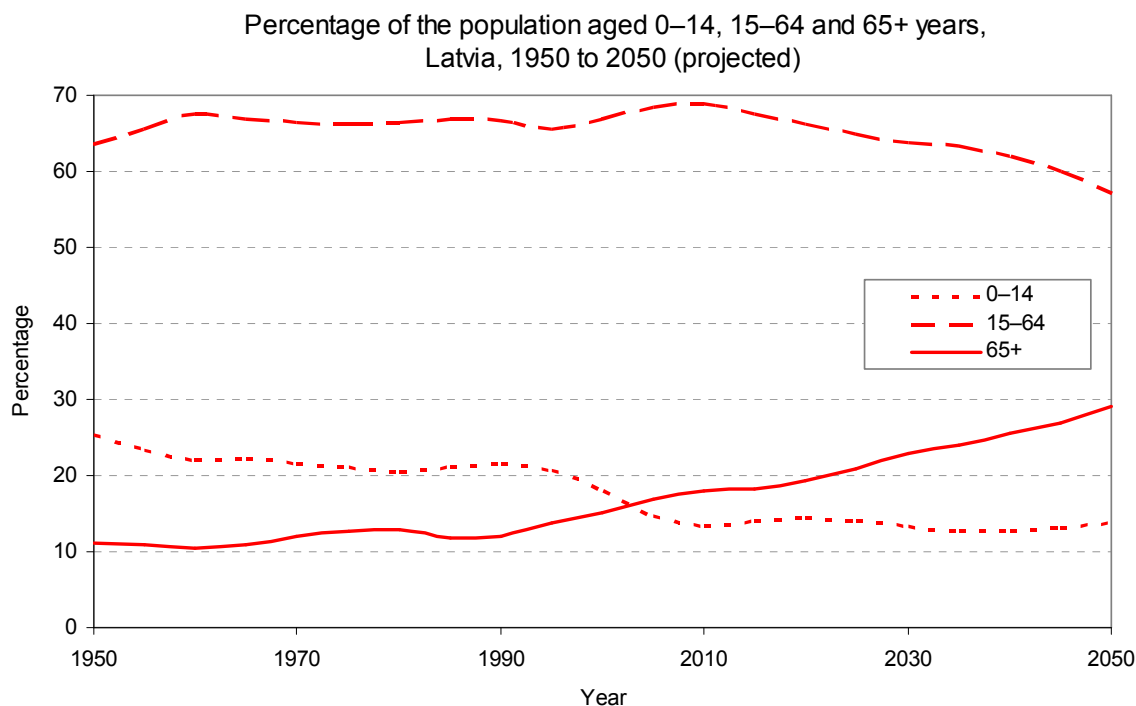
Towards a European strategy on noncommunicable diseases (WHO Regional Office for Europe, 2004b)

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)

Selected demographic and socioeconomic information

Population profile

In mid 2003, Latvia had approximately 2.3 million people, almost 66% in urban areas, slightly higher than the average for Eur-B+C countries. The proportion of the population 0 to 14 years old was relatively steady during the 1980s but fell from about 22% in 1990 to 16% by 2003, below the Eur-B+C average. Conversely, the percentage of the population 65 and older is above the Eur-B+C average (Council of Europe, 2005). By 2030, an estimated 23% of Latvia's population will be over 65. (Annex. Age pyramid).



Source: United Nations (2005).

The birth rate in Latvia was below the Eur-B+C average in 2003. The country's natural population increase and net migration for are both negative and below the Eur-B+C averages.

Selected demographic indicators in Latvia and Eur-B+C 2003 or latest available year

Indicators	Latvia	Eur-B+C		
	Value	Average	Minimum	Maximum
Population (in 1000s)	2325.3	–	–	–
0–14 years (%)	15.7	–	–	–
15–64 years (%)	68.3	–	–	–
65+ years (%)	16.0	–	–	–
Urban population (%) ^a	66.3	63.7	25.0	73.3
Live births (per 1000)	9.0	12.8	8.6	27.1
Natural population growth (per 1000)	–4.9	0.8	–7.5	23.0
Net migration (per 1000)	–0.4	1.8	–6.6	2.1

^a 2002

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.

Income: absolute poverty, relative poverty and income distribution

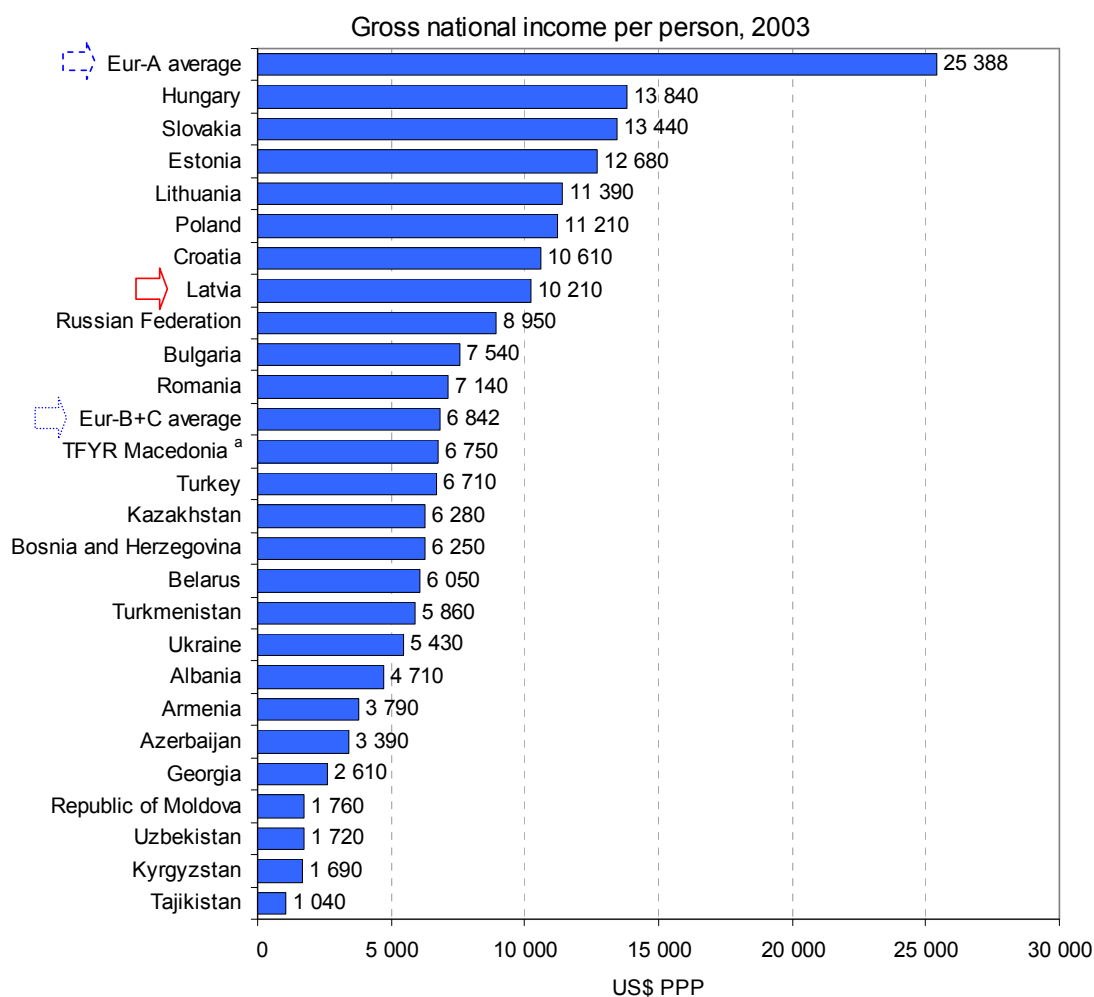
There is an income gradient affecting health: the poor generally suffer worse health and die younger than people with higher incomes. For instance, the latter are better able to afford the goods and services that contribute to health, for example, better food and living conditions.

People are considered to be in absolute poverty if their incomes are not sufficient to purchase very minimal goods and services. The World Bank currently uses an absolute poverty line of US\$ 2.15 and US\$ 4.30 income per capita per day to measure poverty in low- and middle-income countries of the WHO European Region (using 1993 international prices adjusted for purchasing power parity). While there is no certainty that the poverty lines measure the same degree of need across countries, the World Bank uses them as a constant to permit comparison. Many countries in the Region calculate their national poverty lines on the basis of a minimum consumption basket selected and priced according to the specific circumstances of the country.

Relative poverty is an indicator of income level below a given proportion (typically 50%) of the average national income. In high-income countries, there are far more pockets of relative poverty than of absolute poverty.

Another measure of relative poverty in terms of income is the Gini index. This presents the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

In 2003, Latvians had a per capita gross national income of US \$10 210, above the Eur-B+C average.



^a The former Yugoslav Republic of Macedonia
 Source: World Bank (2005).

Household surveys in Latvia conducted from 1988 to 1998, found that, despite a 1988 absolute poverty rate of 0.4%, using the US \$4.30 or less per person per day benchmark, the rates have ranged between 35.7% (1995) and 48.2% (1993) of the population. The 1998 rate, the latest available, was 45.3%. That same year, 8.3% of the population lived on US \$2.15 or less per day (World Bank, 2005).

Eurostat reports that in 2002, 16% of Latvia's population lived in relative poverty, that is, below the risk-of-poverty threshold set at 60% of the national median equivalized disposable income (after social transfers). Latvia's rate was equal to the average for nine Eur-B+C countries with data for that year. By contrast, in 2001, across the 17 Eur-A countries with comparable data, an average of 14% of people lived in relative poverty (Eurostat, 2005).

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.

Net secondary school enrolment in Latvia was 88.6%, compared to the 2000 Eur-B+C average of 81.2%. The average secondary school net enrolment in Eur-A in 2000 was 88.5% (UNESCO, 2005).

Employment

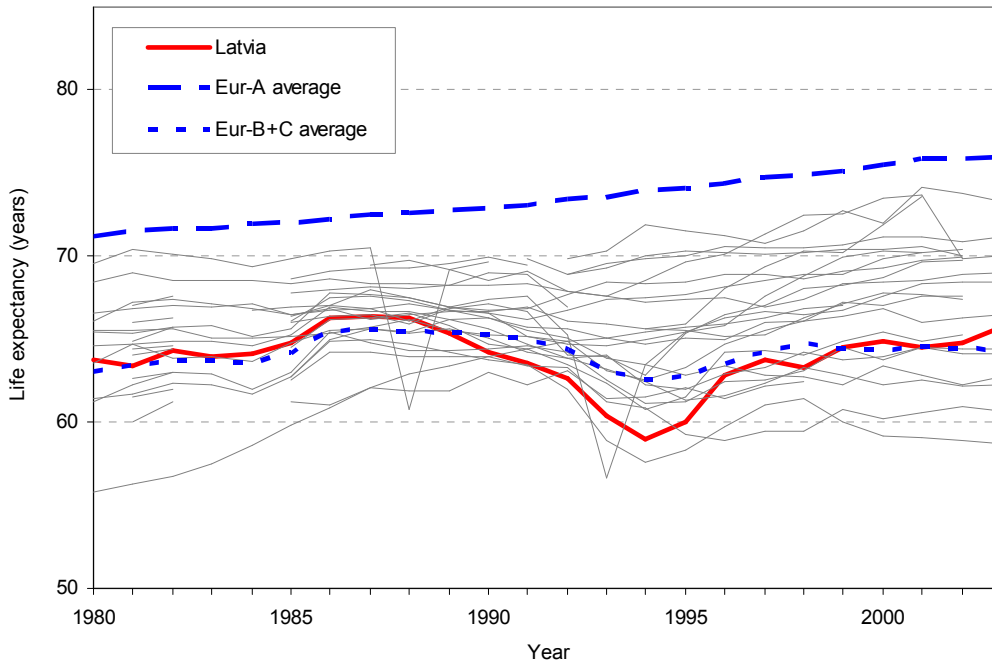
Being employed tends to be better for health than being unemployed, except in circumstances where employment exposes the individual to physical injury or psychological stress. National unemployment rates and rates for particular sub-populations are monitored to assess the extent to which people have 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.

The total unemployment rate in Latvia in 2001 was 7.7%, almost equal to the Eur-B+C average of 12.9% (HFA data 9.57% in 2001) for that year, 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. The proportion of Latvians 15 to 24 years old without work but available for and seeking employment was 20.7% in 2001, lower than the Eur-B+C average youth unemployment rate of 25.2% (ILO, 2005).

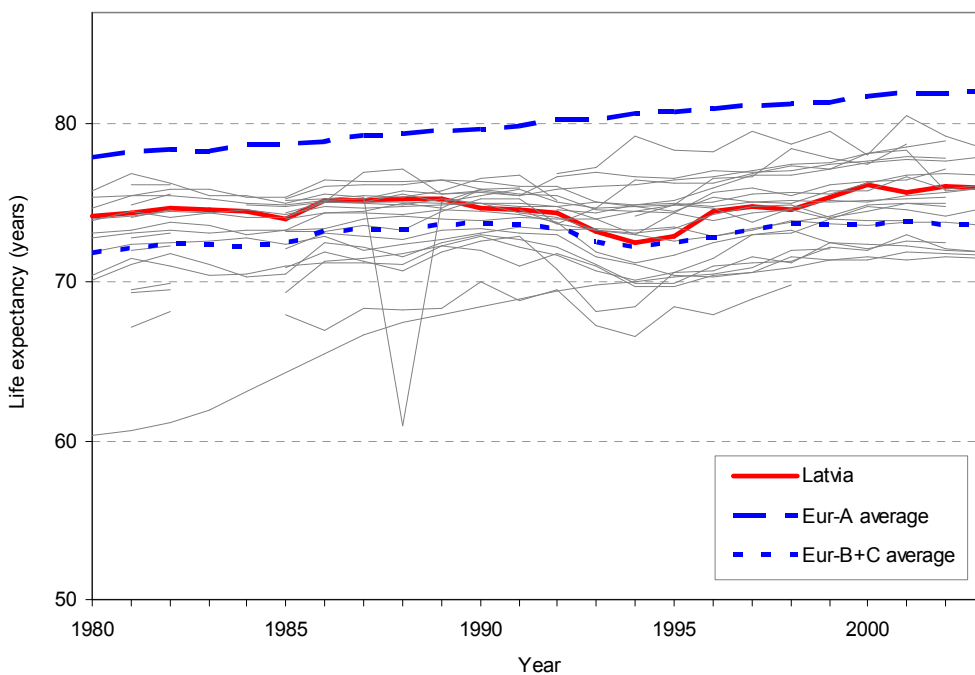
Life expectancy (LE) and healthy life expectancy (HALE)

According to WHO (2003c) estimates, a person born in Latvia in 2002 can expect to live 70.3 years on average: 76.0 years for women and 65.7 years for men, respectively ten years and nearly five lower than the Eur-A averages. The Latvian LE remains higher the Eur-B+C average by 1.5 years for males and 2.5 years for females.

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



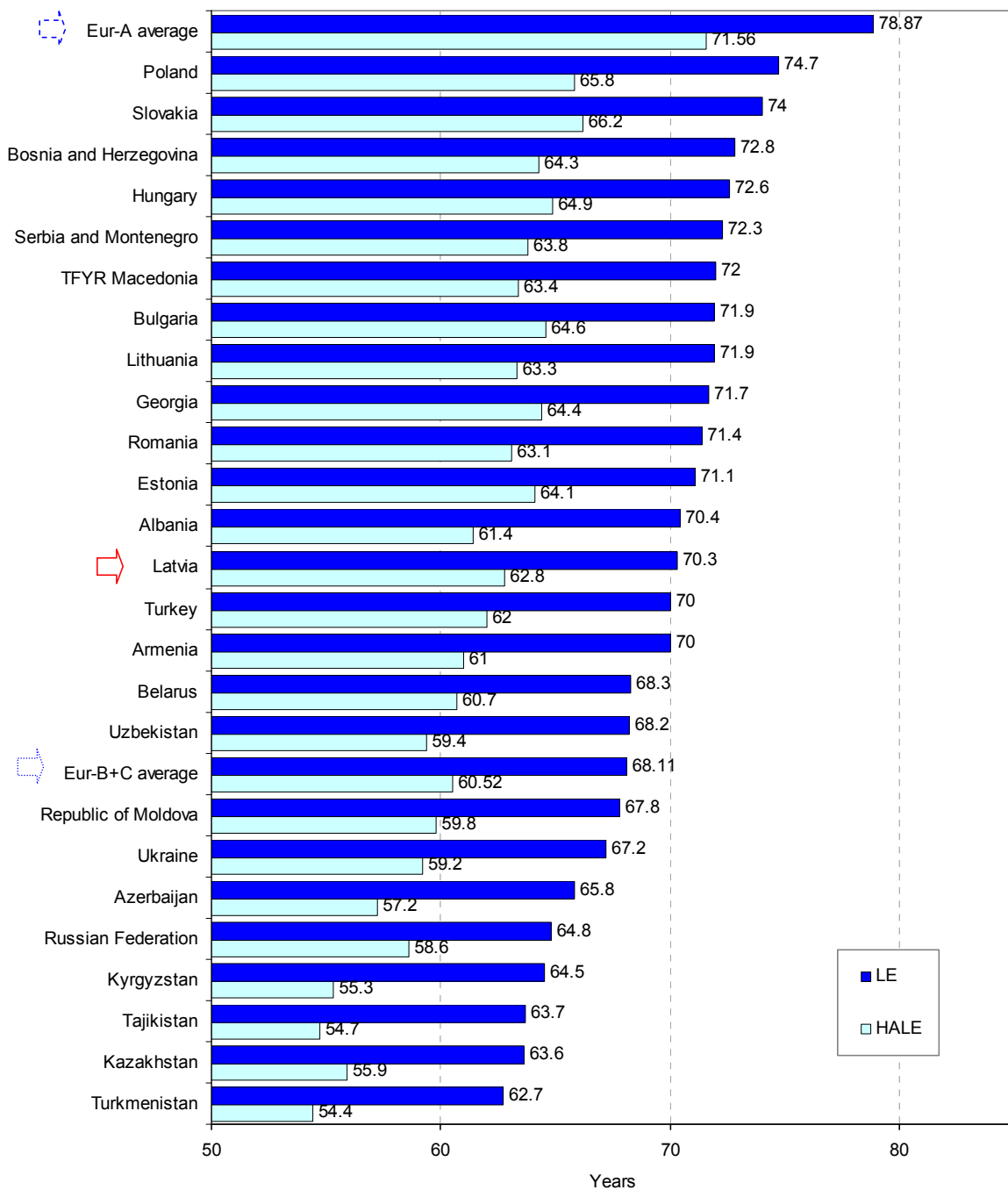
Life expectancy at birth for females, Latvia, Eur-A and Eur-B+C averages, 1980 to latest available year



Since 1980, Latvians have gained about two years LE, nearly the same for women (1.8 years) and men (2.0 years). The Latvian gains are significantly less than those in the Eur-A countries (4–5 years) but, compared to the Eur-B+C average (1–2 years), progress has been greater for men and similar for women.

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 Latvia, WHO (2003c) estimates that people can expect to be healthy for about 89% of their lives. They lose an average of 7.5 years to illness – the difference between LE and HALE. This loss is quite similar to the Eur-A average (7.3 years) and the Eur-B+C average (7.6 years).

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



Source: WHO (2003c).

Since women live longer and since the possibility of deteriorating health increases with age, women lose more healthy years of life (8.3 years) than men (6.6 years). Nevertheless, the longer LE for women in Latvia gives them 9.2 more years of healthy life. This is among the largest gender difference observed in the WHO European Region after the Russian Federation (11.5 years) and Estonia (9.8 years). Among people 60 years old, females also have more healthy years (15.7) remaining than males (11.3 years), even though this gender difference is much smaller, according to the WHO estimates (2003c).

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 disease burden is affected by population lifestyle, work environment and habits, which are typically the most important factors. The Latvian population's insufficient physical activity, unhealthy diet, smoking and alcohol abuse are causes of high morbidity, disability and mortality rates from cardiovascular diseases. Preventive measures are unsatisfactory at the primary health care level as well (Karashkevica, 2003).

The table below has the top 10 conditions, in descending order, that account for approximately 90% of the disease burden among males and females in Latvia; cardiovascular diseases account for the most DALYs among both. Unintentional injuries account for the second highest disease burden among males. Neuropsychiatric disorders rank third among males and second among 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 causes of disease burden measured in DALYs in Latvia (2002)

Rank	Males		Females	
	Disability groups	Total DALYs (%)	Disability groups	Total DALYs (%)
1	Cardiovascular diseases	26.4	Cardiovascular diseases	28.2
2	Unintentional injuries	17.3	Neuropsychiatric conditions	19.6
3	Neuropsychiatric conditions	15.8	Malignant neoplasms	11.9
4	Malignant neoplasms	11.0	Unintentional injuries	6.9
5	Intentional injuries	7.0	Sense organ diseases	6.4
6	Digestive diseases	4.6	Musculoskeletal diseases	6.0
7	Sense organ diseases	3.5	Digestive diseases	4.7
8	Infectious and parasitic diseases	3.1	Intentional injuries	2.4
9	Musculoskeletal diseases	2.5	Infectious and parasitic diseases	2.2
10	Respiratory diseases	1.9	Respiratory diseases	2.0

Source: Background data from WHO (2003).

Main risk factors

In general the lifestyle of Latvian population is unhealthy. Statistics confirm that Latvians prefer strong alcohol – vodka and hard liquor comprise 40% of total alcohol consumption – resulting in many deaths from external causes and a high number of traffic accidents. Obesity and overweight affect 40% of males and 42% of females, and 51.1% of males and 19.2% of females 18 years old or older are daily smokers. The Ministry of Health, the State Narcology Centre and World Health Organization have elaborated a programme for alcohol consumption and alcoholism reduction for 2004–2008 in order to improve the quality of life and safety. Its aim is to decrease alcohol consumption per capita and to limit the harmful influence of alcohol on individuals as well as the society as a whole. The programme has three main goals: restriction of supply (advertisements, legal and illegal points of purchase), reduction of demand

(prevention, alternative possibilities for recreation, treatment, medical and social rehabilitation) and reduction of risky and harmful alcohol abuse (road traffic accidents, accidents at work places) (Karashkevica, 2003).

The table below has the top 10 risk factors with their relative contributions, in descending order, to burden of disease in the male and female populations of Latvia. According to DALYs, alcohol and tobacco use places the greatest burden of disease on the Latvian male population and high blood pressure and high cholesterol on females.

Ten leading risk factors as causes of disease burden measured in DALYs in Latvia (2002)

Rank	Males		Females	
	Risk factors	Total DALYs (%)	Risk factors	Total DALYs (%)
1	Alcohol	21.9	High blood pressure	15.3
2	Tobacco	19.3	High cholesterol	11.5
3	High blood pressure	12.9	High BMI	9.6
4	High cholesterol	10.6	Alcohol	6.7
5	Low fruit and vegetable intake	6.6	Low fruit and vegetable intake	6.1
6	High BMI	6.4	Physical inactivity	4.7
7	Physical inactivity	4.1	Tobacco	2.5
8	Illicit drugs	2.5	Unsafe sex	2.3
9	Occupational risk factors for injuries	1.1	Illicit drugs	1.2
10	Lead	1.0	Childhood sexual abuse	0.9

Source: Background data from WHO (2003).

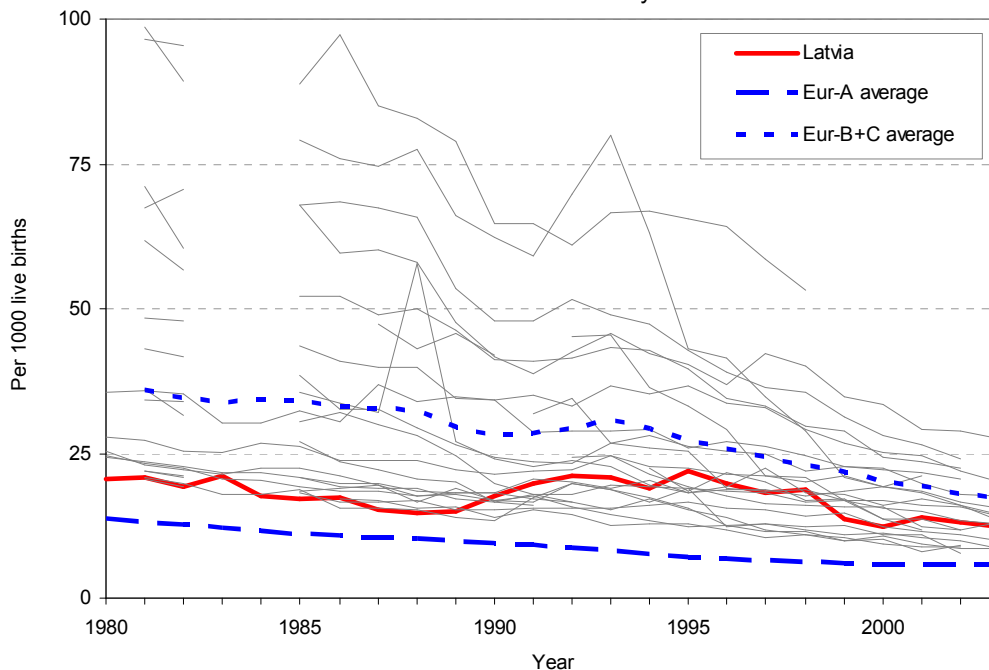
Mortality

Infant, neonatal and child mortality

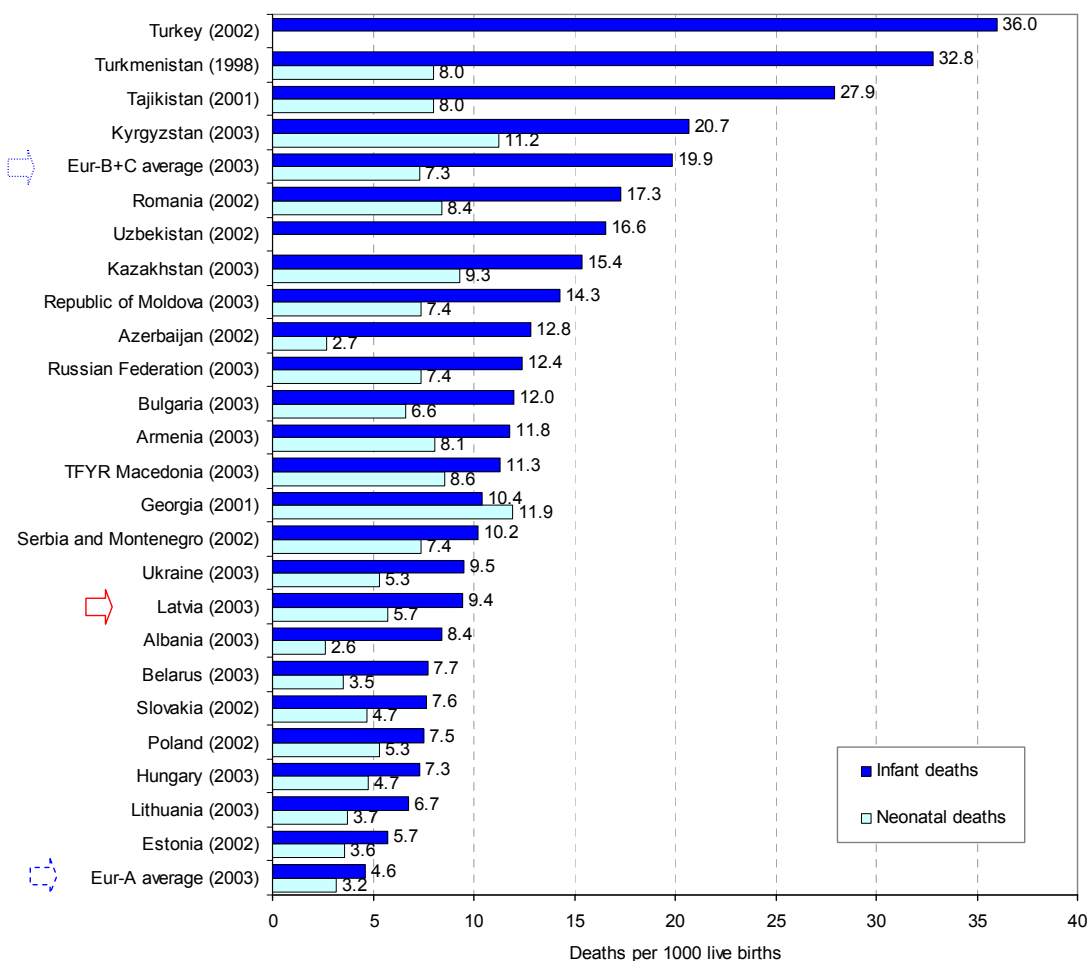
Both infant and neonatal mortality in Latvia halved between the mid-1990s and 2003, and the most recent rates remain below the Eur-B+C average, but above the Eur-A average. The probability of dying from prematurity or other perinatal causes has especially decreased in Latvia. The WHO/UNICEF estimate for infant mortality in Latvia (12 per 1000 live births) confirms the improved situation, even though it is somewhat higher than the national figure of 9.44 per 1000 in 2003 (WHO, 2004).

National data and WHO estimates for 2003 show that out of every 1000 live births in Latvia, there is a probability that between 12 and 14 children will die before age five. The lowest WHO estimates for the Eur-B+C countries are for Estonia and Slovakia, each at 8 deaths per 1000 live births.

Probability of dying before age 5 years, Latvia, Eur-A and Eur-B+C averages, 1980 to latest available year



Infant deaths and neonatal deaths per 1000 live births, Latvia, Eur-A and Eur-B+C averages, latest available year

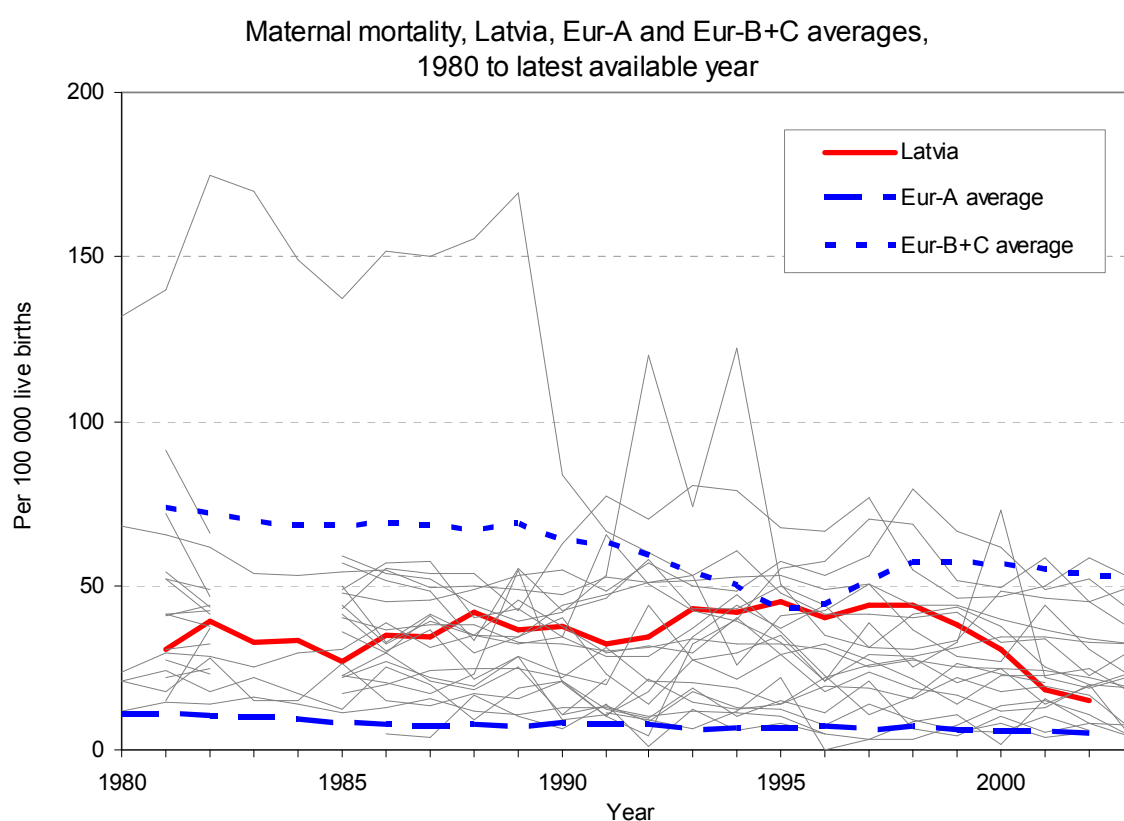


Maternal mortality

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.

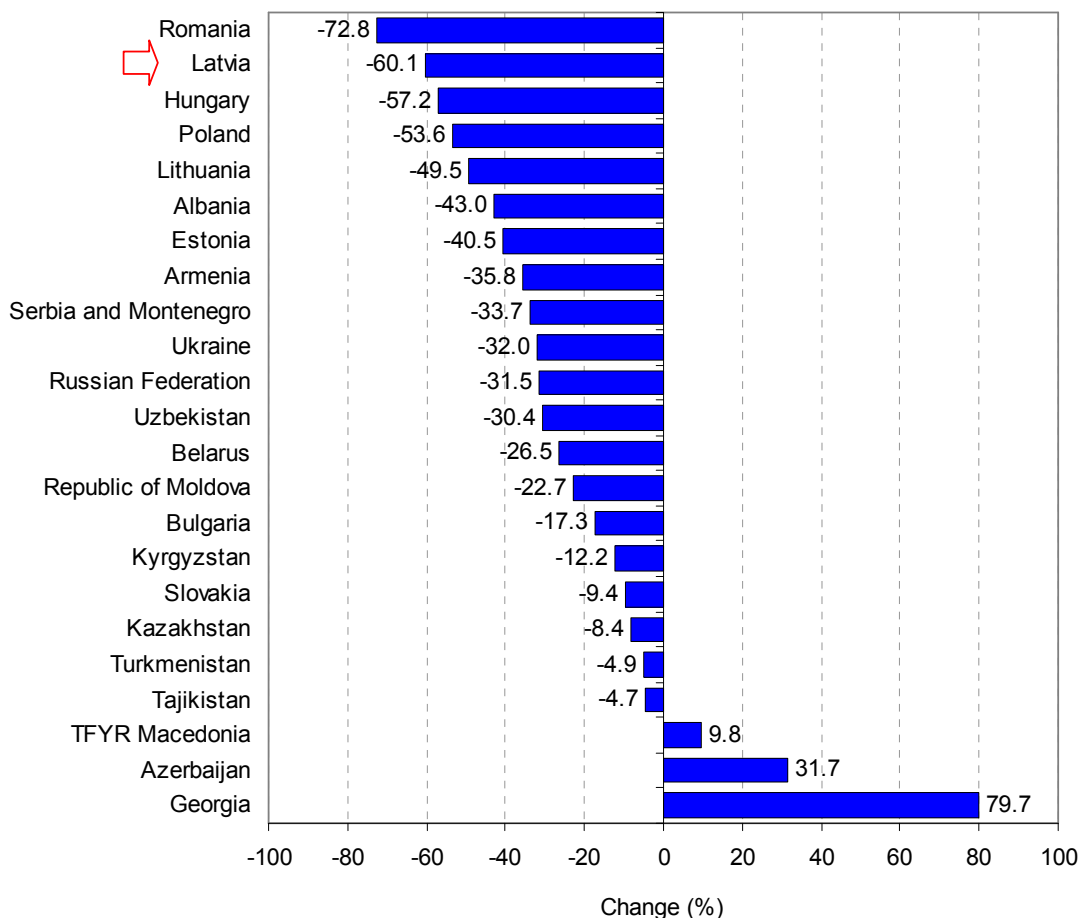


Note: Data for Estonia and Latvia 3-year moving averages.

The maternal mortality rate (MMR) increased in the 1980s and 1990s, and reached the much higher Eur-B+C average in the mid-1990s. Thereafter, it started to decrease rapidly, but it is still some three times the Eur-A average, but still well below the Eur-B+C average. Between 1990 and 2002, it fell by 60%, despite an increase between 1990 and 1995 (to a peak of 45 maternal deaths per 100 000). For Latvia to reach its MDG target, the MMR would have to fall another 37% from the 2002 level.

From 1999 to 2003, five out of 22 maternal deaths (22.7%) were due to induced or spontaneous abortion (including ectopic pregnancies), among the highest rates in the WHO European Region. Improved practices in abortion procedure and better follow-up may prevent this kind of maternal deaths.

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

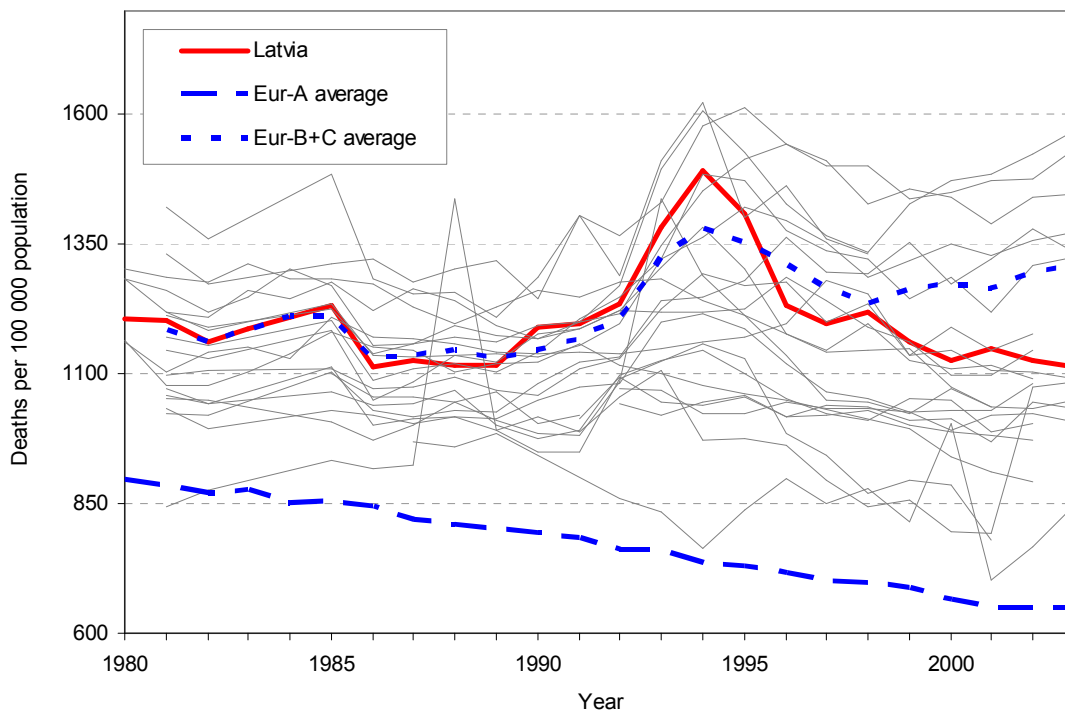


Excess mortality

The mortality pattern in all three Baltic countries follows a specific pattern related to alcohol policy.

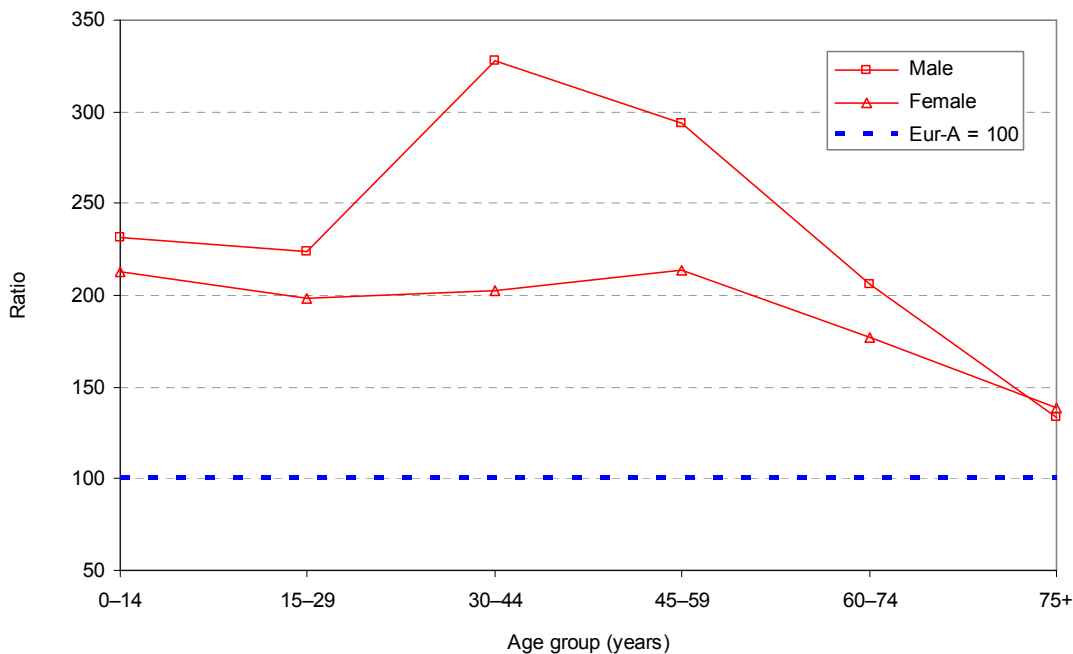
In 1986, Latvia shared with the other Baltic countries a fall in the death rate from all causes, reflecting a reduction in deaths from cardiovascular disease and external causes. This followed the introduction in June 1985 of a vigorous campaign to restrict alcohol consumption (the so-called Gorbachov anti-alcohol campaign). Mortality rates reached a low point in 1989. Following economic liberalization in 1991, alcohol became more widely available and cheaper than before 1985, presumably contributing to the 20% increase in mortality between 1992 and 1994, especially among men. These trends, and the evidence supporting the causal role of alcohol, are covered in more detail in *Health in Europe, 1997* (WHO Regional Office for Europe, 1998). Since mid-1990s, the total death rate in Latvia has decreased by one-fourth and is now substantially below the Eur-B+C average.

Standardized death rate (SDR) for all causes in people of all ages, Latvia, Eur-A and Eur-B+C averages, 1980 to latest available year

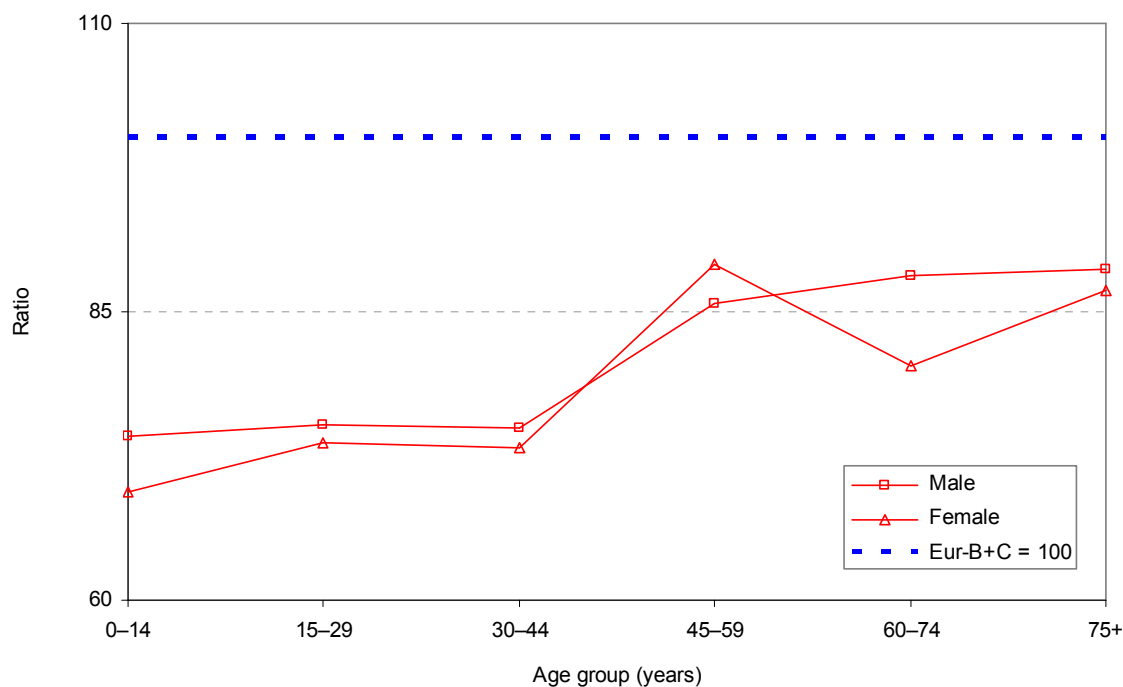


According to the latest figures, the mortality rate for males in Latvia is 88% higher and the rate for females 61% higher than the Eur-A average. Excess mortality can be seen in all age groups, and in Latvia these rates are more than double the Eur-A rate for male under 75 years old and females under 60. Despite this excess mortality, the Latvian rates are lower than the Eur-B+C average (-14% and -16%, respectively), also by age groups.

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



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



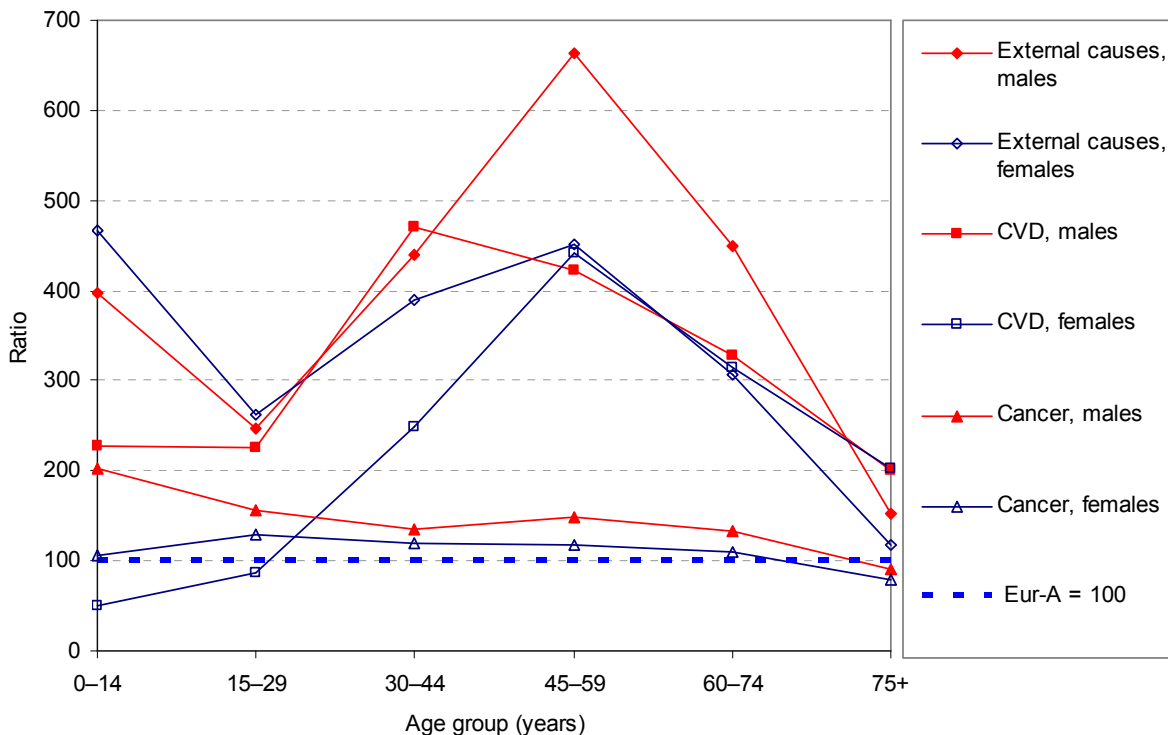
Main causes of death

In 2003, selected main non-communicable diseases accounted for about 78% of all deaths in Latvia, external causes for about 12% and communicable diseases for less than 1%. In total 53% of all deaths were caused by diseases of the circulatory system and 17% by cancer. (Annex. Selected mortality. Annex. Mortality data).

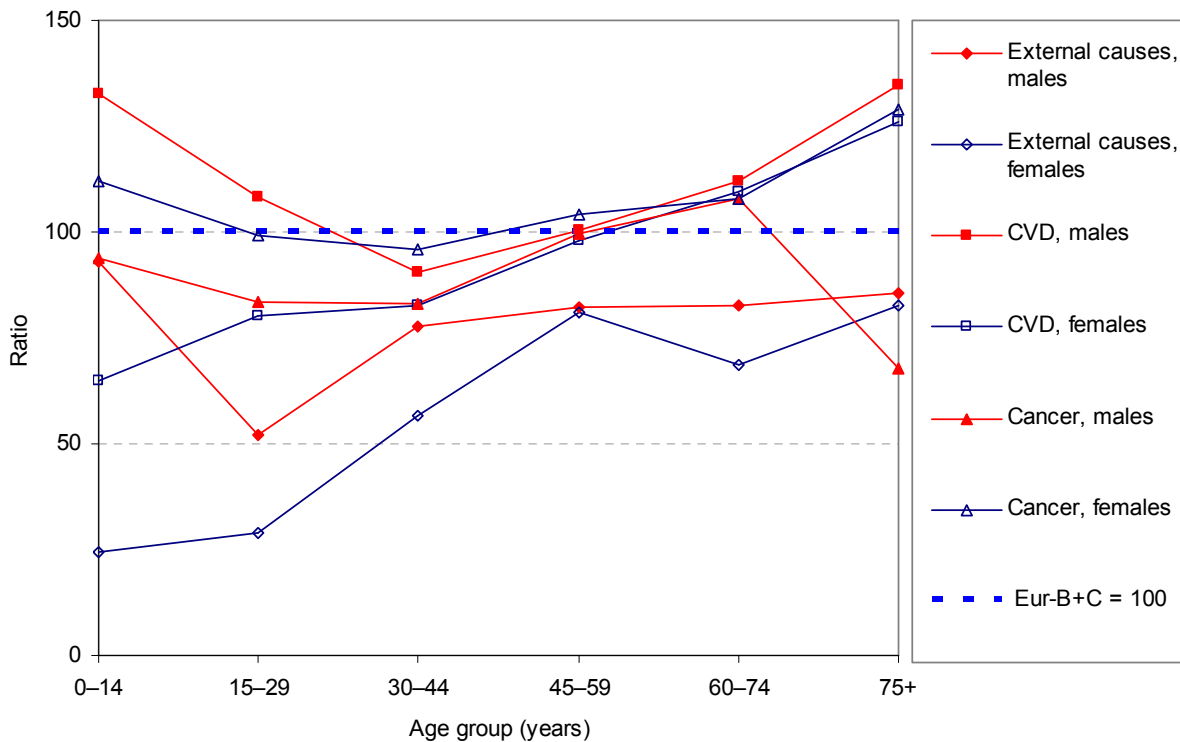
Latvians risk for dying from CVDs is higher than the Eur-A average, excluding women under 30 years old. In other age groups, this excess risk is at least double the Eur-A average, and it is at its highest – at least four-fold – for men 30–59 years old and women 45–59. The risk of cancer death is higher for all males and females under 75 years old, but proportionally the excess risks are lower than for CVDs. The risk for death from external causes and poisoning is higher than the Eur-A average (at least four times higher, and up to nearly seven times for certain age groups) for both sexes in all age groups.

The Latvian death rates by sex and age group are lower than or comparable to the Eur-B+C averages. The most significant exception is for cancer, where Latvians 75 and over have an approximately 30% greater risk. The oldest Latvian women have a higher risk (around 27%) for death from external causes and poisonings.

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



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



CVD

More than half of all deaths in Latvia are caused by cardiovascular diseases. CVD mortality has decreased almost by one-fourth since the mid-1990s. This improvement has been most substantial for Latvians aged 15 years or more. The most current Latvian rates are somewhat below the Eur-B+C average for men and substantially below this average for women in the 15–44 and 60–74 age groups.

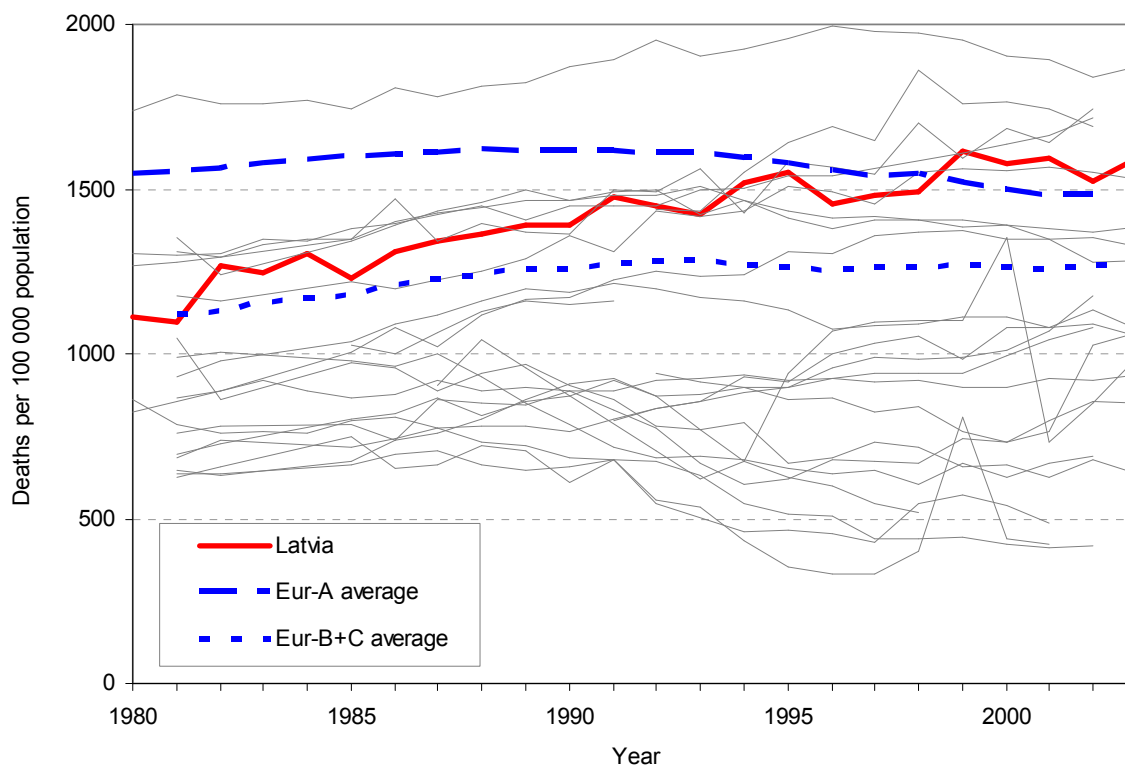
Ischemic heart disease is the single biggest killer in Latvia, having caused almost 26% of all deaths in 2003. For men and women over 30 years old, the rate has declined substantially, and the younger age groups approach the Eur-A average. The Latvian rate is currently below Eur-B+C average in all age groups, even though the difference is small for men over 75. The declining trend is similar for deaths from cerebrovascular diseases for both sexes in all age groups. The exceptions are males 30–44 years old and over 75, whose death rate started to increase in the late 1990s.

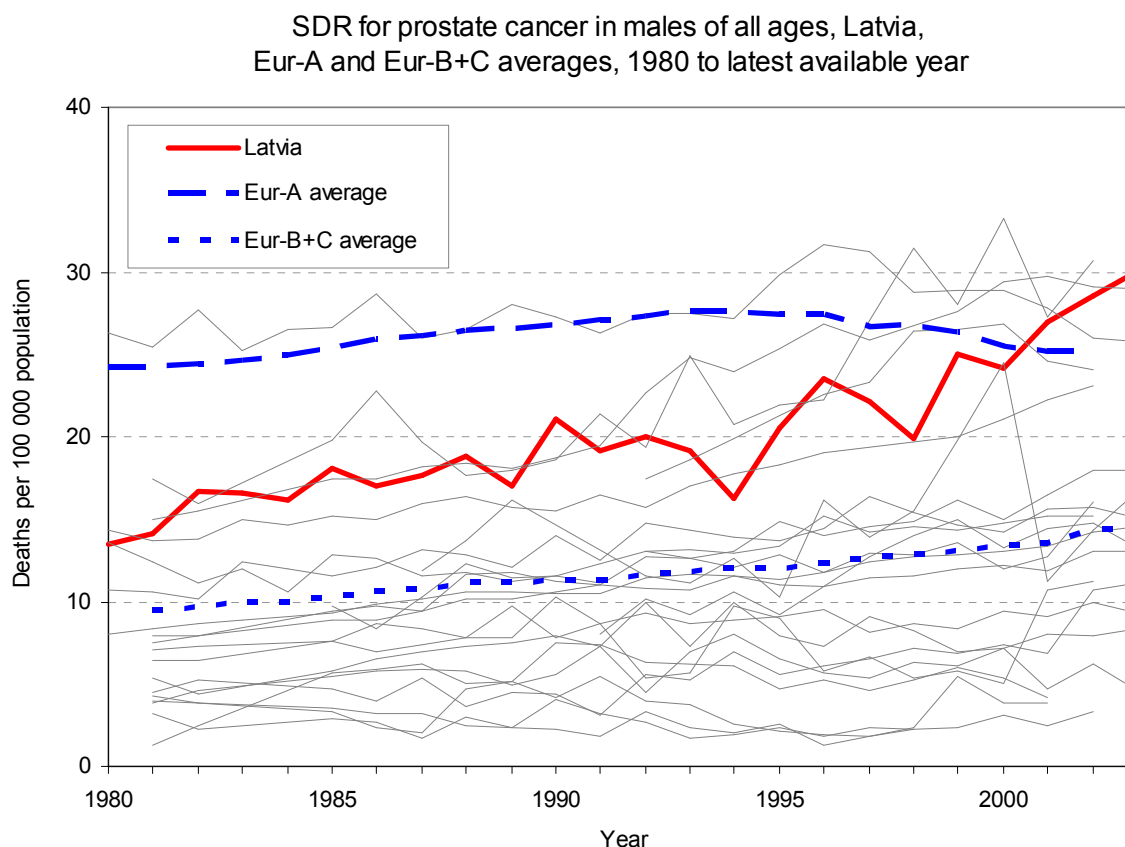
Cancer

Cancer causes more than every sixth death in Latvia, and is decreasing in all age groups under 75. Among Latvians over 75, both men and women, cancer death rates have constantly increased since the 1980s, and are higher than the Eur-A average for men. The rates remain higher than the Eur-B+C average for males and females 60 and older.

The risk of dying from oesophageal or liver cancer is below the Eur-A and Eur-B+C averages, but is increasing. The mortality rates are also increasing for lip, oral cavity, pharyngeal, colorectal, lymphoid and hematopoietic, prostate, ovarian and cervical cancers, and the most recent rates are above the Eur-A and Eur-B+C averages for all but cervical cancer. Mortality from stomach, pancreatic, laryngeal, tracheal, bronchial, lung, skin, lymphoid and hematopoietic, uterine and breast cancers is decreasing, but the Latvian rates are similar to the Eur-B+C average for stomach cancer and breast cancer and above it for the others.

SDR for cancer in males aged 65+ years, Latvia,
Eur-A and Eur-B+C averages, 1980 to latest available year



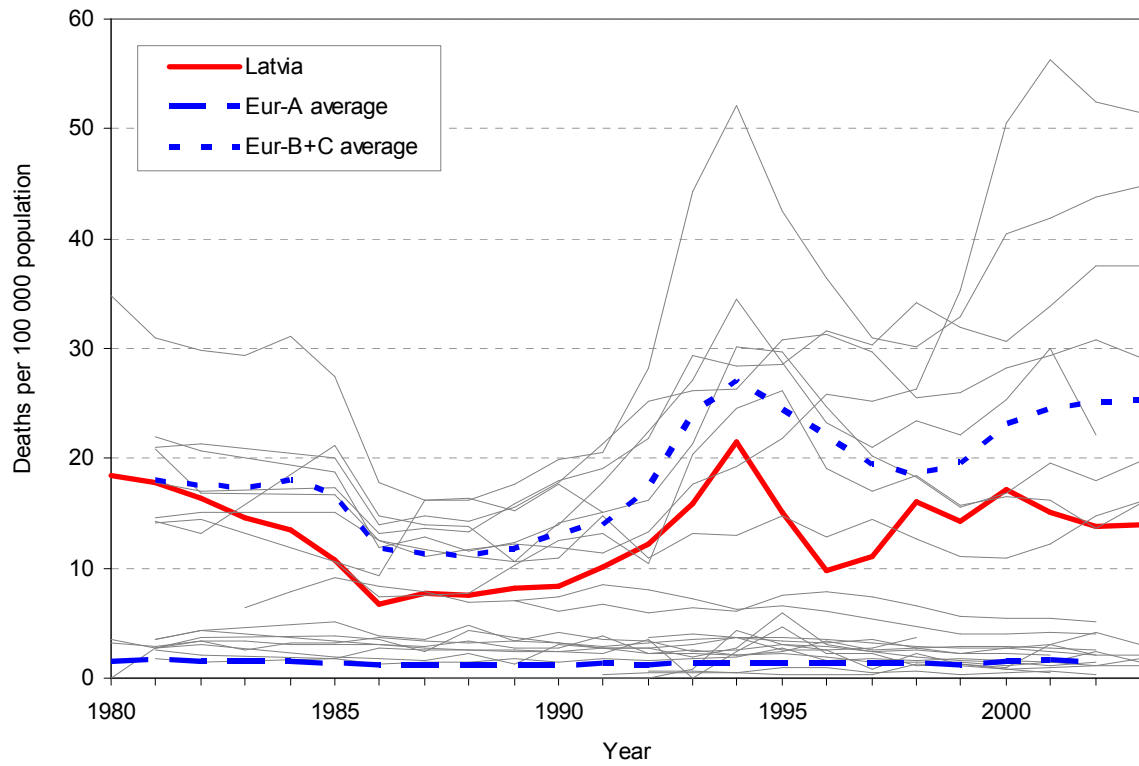


Other causes of death (diseases and medical conditions)

Mortality for external causes more than doubled between the late 1980s and 1994, but has decreased by over 40% since then. Even though the decline has been slow in the recent years, the Latvian mortality rate has intersected the rising Eur-B+C average. Despite falling mortality, the Latvian death rates are high for all external causes, especially accidents, traffic accidents, accidental falls, accidental drowning and exposure to smoke, fire and flames, for which Latvia has the second highest rate in the WHO European Region after Estonia, especially among men over 30. Accidental poisoning, two-thirds of which is caused by alcohol, is an exception among the declining death rates. The Latvian figures, however, are still well below the Eur-B+C average.

Suicides and homicides have become less frequent in Latvia, and the death rates have decreased since the mid-1990s by more than 40% and almost 60%, respectively. The trends are similar for both sexes and all age groups. The suicide rate in the 15–29 age group have decreased to below the Eur-B+C average, as have those for men in the 30–44 and 60–74 groups.

SDR for accidental poisoning in people of all ages,
Latvia, Eur-A and Eur-B+C averages, 1980 to latest available year



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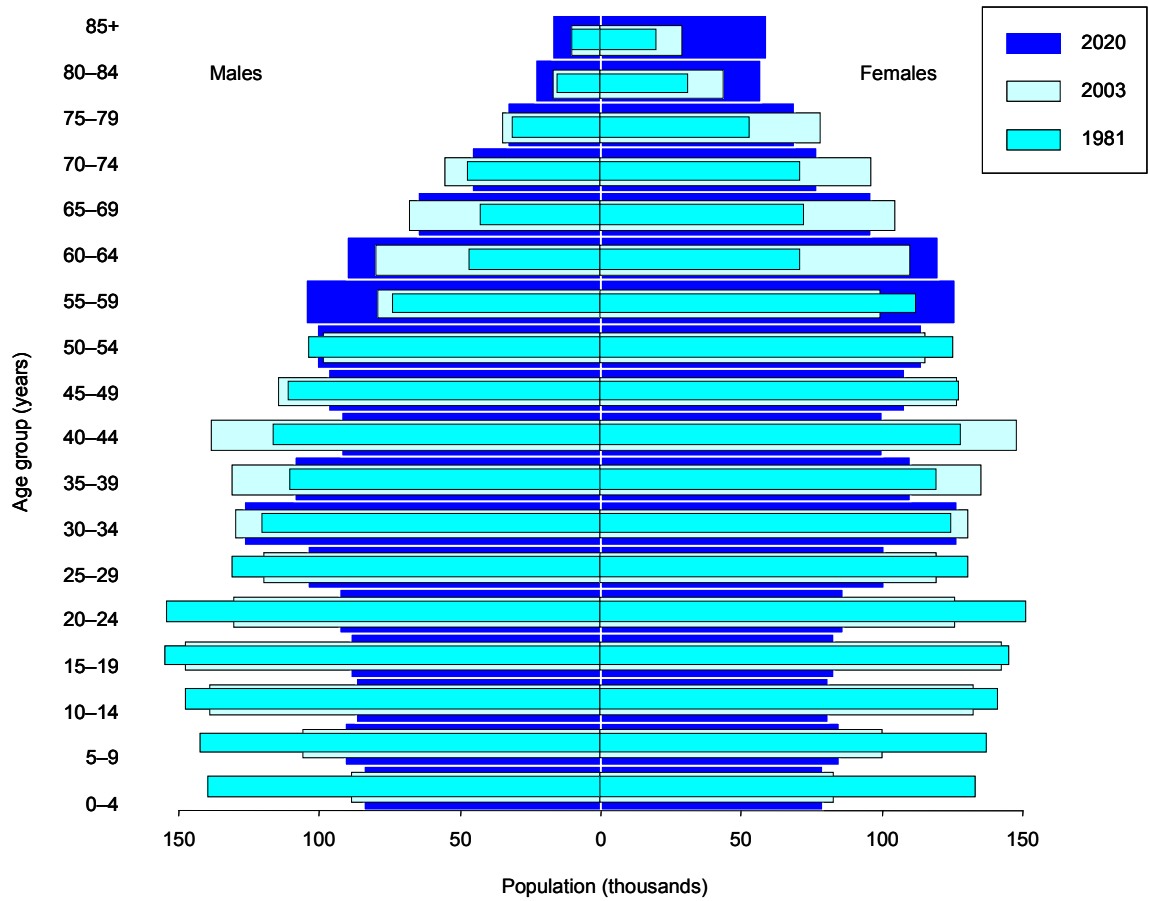
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Annexes

Annex. Age pyramid

Age pyramid for Latvia



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

Annex. Selected mortality

Selected mortality in Latvia compared with Eur-B+C averages

Condition	SDR per 100 000		Excess mortality in Latvia (%)	Total deaths in Latvia (%)	Total deaths in Eur-B+C (%)	Eur-A average	Excess Latvia to Eur-A (%)	Total deaths in Eur-A (%)
	Latvia (2003)	Eur-B+C average (2003)						
Selected non-communicable conditions	872.1	1044.9	-16.5	78.3	79.6	533.8	63.4	82.4
<i>Cardiovascular diseases</i>	593.0	741.8	-20.1	53.3	56.5	243.4	143.6	37.6
Ischaemic heart disease	291.6	362.7	-19.6	26.2	27.6	95.9	204.1	14.8
Cerebrovascular diseases	206.2	221.7	-7.0	18.5	16.9	61.1	237.5	9.4
Diseases of pulmonary circulation and other heart disease	38.6	68.9	-44.0	3.5	5.3	56.6	-31.8	8.7
<i>Malignant neoplasms</i>	193.9	172.0	12.7	17.4	13.1	181.5	6.8	28.0
Trachea/bronchus/lung cancer	36.4	33.9	7.4	3.3	2.6	37.1	-1.9	5.7
Female breast cancer	23.8	22.1	7.7	2.1	1.7	27.0	-11.9	4.2
Colon/rectal/anal cancer	21.7	19.0	14.2	1.9	1.4	20.7	4.8	3.2
Prostate	30.1	14.3	110.5	2.7	1.1	25.1	19.9	3.9
<i>Respiratory diseases</i>	29.3	63.1	-53.6	2.6	4.8	47.8	-38.7	7.4
Chronic lower respiratory diseases	11.0	31.2	-64.7	1.0	2.4	20.2	-45.5	3.1
Pneumonia	16.2	23.6	-31.4	1.5	1.8	16.2	0.0	2.5
<i>Digestive diseases</i>	38.1	52.3	-27.2	3.4	4.0	30.8	23.7	4.8
Chronic liver disease and cirrhosis	14.0	32.0	-56.3	1.3	2.4	12.6	11.1	1.9
<i>Neuropsychiatric disorders</i>	17.9	15.7	14.0	1.6	1.2	30.3	-40.9	4.7
Communicable conditions	13.3	20.8	-36.1	1.2	1.6	8.4	58.3	1.3
AIDS/HIV	0.5	0.8	-37.5	0.0	0.1	1.1	-54.5	0.2
External causes	136.3	139.6	-2.4	12.2	10.6	40.3	238.2	6.2
<i>Unintentional</i>	101.9	102.2	-0.3	9.2	7.8	28.7	255.1	4.4
Road traffic injuries	20.6	14.7	40.1	1.8	1.1	9.9	108.1	1.5
Falls	12.3	7.5	64.0	1.1	0.6	6.1	101.6	0.9
<i>Intentional</i>	34.4	37.4	-8.0	3.1	2.9	11.6	196.6	1.8
Self-inflicted (suicide)	24.1	23.2	3.9	2.2	1.8	10.6	127.4	1.6
Violence (homicide)	10.3	14.2	-27.5	0.9	1.1	1.0	930.0	0.2
Ill-defined conditions	49.5	64.0	-22.7	4.4	4.9	20.9	136.8	3.2
All causes	1113.6	1312.2	-15.1	100.0	100.0	647.8	71.9	100.0

Annex. Mortality data

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

Causes of death	Sex	Latvia (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	109.4	-5.1	49.4	-2.4	151.7	-3.8
	M	126.4	-4.9	55.3	-2.5	170.5	-3.9
	F	91.5	-5.4	43.3	-2.4	131.9	-3.8
<i>Infectious and parasitic diseases</i>	M	4.2	-7.7	1.4	-1.1	10.9	-7.0
	F	6.3	-4.7	1.1	-3.0	9.5	-6.6
Intestinal infectious diseases	M	0.0	-12.5	0.2	-0.7	5.1	-8.2
	F	0.7	-5.6	0.1	-7.3	4.7	-7.9
<i>Malignant neoplasms</i>	M	6.8	-1.9	3.3	-1.8	5.1	-1.9
	F	2.7	-8.7	2.6	-1.8	4.2	-1.9
<i>Cardiovascular diseases</i>	M	3.1	43.6	1.4	-3.1	3.3	1.1
	F	0.6		1.3	-2.5	2.6	0.1
<i>Respiratory diseases</i>	M	2.7	-8.2	1.4	-4.3	35.9	-5.0
	F	1.5	-10.8	1.0	-4.2	30.7	-5.0
Pneumonia	M	1.4	-9.6	0.5	-6.0	20.9	-4.9
	F	1.5	-10.6	0.4	-5.1	17.9	-4.7
<i>Certain conditions originating in perinatal period</i>	M	493.2	-6.9	255.3	-2.1	607.6	-2.7
	F	291.0	-7.5	202.3	-1.6	427.5	-2.7
Congenital malformations & chromosomal abnormalities	M	26.4	-4.6	11.6	-2.9	24.2	-2.8
	F	21.7	-5.3	10.0	-3.3	21.0	-2.6
<i>Ill-defined causes</i>	M	12.5	15.9	5.0	-3.9	5.6	-0.6
	F	9.3	13.4	3.4	-4.2	4.6	-1.0
<i>External causes of injury & poisoning</i>	M	27.2	-5.0	7.0	-4.0	29.0	-3.4
	F	20.3	-4.4	4.6	-3.2	18.1	-3.1
Road traffic injuries	M	4.1	-6.0	2.5	-4.5	4.7	-2.6
	F	4.6	-3.1	1.7	-4.8	3.0	-1.6

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

Causes of death	Sex	Latvia (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	120.9	-4.7	56.0	-2.3	161.0	-0.9
	M	181.9	-5.2	82.0	-2.3	241.7	-1.0
	F	58.2	-2.6	29.3	-2.2	79.0	-0.6
<i>Infectious and parasitic diseases</i>	M	3.3	-2.8	1.2	1.5	12.3	3.0
	F	2.5	-1.4	0.8	1.9	5.1	2.5
<i>Malignant neoplasms</i>	M	9.5	-1.8	6.2	-1.0	8.8	-1.9
	F	6.2	-3.0	4.7	-1.4	7.7	-1.9
<i>Cardiovascular diseases</i>	M	9.2	-6.9	4.1	-2.4	17.6	0.0
	F	2.1	-7.1	2.3	-2.0	7.3	-0.9
<i>Respiratory diseases</i>	M	2.7	-3.6	1.4	-3.6	6.9	0.2
	F	2.0	-8.1	0.9	-2.7	3.8	-1.1
<i>Digestive diseases</i>	M	4.9	7.4	0.9	-3.5	8.0	3.0
	F	2.1	0.5	0.5	-3.8	3.7	3.1
<i>Ill-defined causes</i>	M	5.7	173.4	4.0	-3.1	11.6	7.1
	F	1.2		1.4	-1.3	3.3	5.8
<i>External causes</i>	M	135.9	-5.8	58.3	-1.4	162.4	-1.6
	F	36.6	-1.2	14.4	-1.6	36.9	-0.2
Road traffic injuries	M	46.2	-4.7	28.5	-1.3	27.8	-1.5
	F	14.4	-0.5	7.3	-1.4	8.0	0.3
Accidental drowning	M	8.2	-9.2	1.3	-2.2	10.8	-3.9
	F	1.9	2.0	0.2	-2.1	1.9	-2.2
Accidental poisoning	M	8.4	-1.1	2.8	0.0	19.1	3.3
	F	2.8	0.0	0.7	0.8	4.4	2.5
Self-inflicted (suicide)	M	33.7	-4.7	12.7	-1.8	36.8	0.0
	F	5.6	-2.4	3.1	-2.2	5.8	-1.3

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

Causes of death	Sex	Latvia (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	337.1	-5.2	120.3	-2.5	453.8	-0.7
	M	524.4	-5.5	161.6	-2.6	700.0	-0.8
	F	158.0	-4.6	78.5	-2.1	215.6	-0.2
<i>Malignant neoplasms</i>	M	36.3	-0.1	27.6	-2.3	40.2	-2.8
	F	36.3	-2.8	31.3	-2.0	43.8	-1.4
Trachea/bronchus/lung cancer	M	5.9	0.3	5.0	-3.4	7.3	-4.2
	F	1.9	2.9	2.8	-0.6	2.2	-1.0
Female breast cancer							
	F	8.2	-1.3	10.0	-2.6	10.0	-2.3
<i>Cardiovascular diseases</i>	M	123.5	-6.2	26.1	-2.5	158.6	-0.4
	F	25.7	-7.1	10.4	-2.1	45.3	0.0
Ischaemic heart disease	M	44.2	-7.5	11.8	-3.1	73.7	-2.2
	F	2.6	-10.6	2.4	-2.7	14.4	-1.3
Cerebrovascular diseases	M	20.1	-1.7	4.4	-3.2	24.6	-0.4
	F	3.9	-8.0	3.6	-2.5	10.6	-1.3
<i>Respiratory diseases</i>	M	19.0	-7.5	3.9	-3.5	34.3	0.9
	F	5.8	-6.9	2.2	-2.0	9.8	0.8
<i>Digestive diseases</i>	M	31.9	-1.6	12.6	-2.4	50.2	1.4
	F	10.6	-1.0	5.4	-1.7	19.4	4.1
<i>External causes</i>	M	248.2	-5.7	58.8	-1.2	299.5	-1.9
	F	56.6	-4.0	15.1	-1.8	58.9	-1.0
Road traffic injuries	M	39.4	-5.7	16.0	-0.5	31.4	-1.7
	F	7.0	-5.0	3.9	-2.0	7.1	-0.5
Self-inflicted (suicide)	M	52.3	-5.8	21.2	-1.5	54.9	-2.4
	F	9.1	-5.7	5.8	-2.2	7.9	-2.5

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

Causes of death	Sex	Latvia (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	1109.5	-3.7	435.6	-1.3	1294.9	-0.6
	M	1698.0	-3.9	580.1	-1.4	1981.7	-0.6
	F	623.2	-3.1	293.3	-1.0	698.9	-0.5
<i>Malignant neoplasms</i>	M	324.5	-0.8	218.2	-1.2	323.2	-1.9
	F	182.7	-1.4	155.0	-1.0	186.1	-0.5
Trachea/bronchus/lung cancer	M	104.8	-0.8	65.9	-1.5	101.4	-2.9
	F	12.8	6.8	21.8	3.4	15.4	1.0
Female breast cancer							
	F	42.0	-3.0	44.0	-2.2	45.3	0.1
<i>Cardiovascular diseases</i>	M	651.2	-4.8	156.4	-2.6	793.1	-0.1
	F	219.7	-4.4	50.9	-2.5	271.7	-0.6
Ischaemic heart disease	M	355.4	-5.6	86.2	-3.3	435.3	-0.7
	F	86.9	-5.3	17.8	-3.4	111.1	-0.6
Cerebrovascular diseases	M	121.1	-4.1	23.7	-2.6	168.6	-0.9
	F	62.1	-4.1	14.5	-2.1	88.4	-1.4
<i>Respiratory diseases</i>	M	77.4	-5.0	20.3	-1.7	108.7	-1.4
	F	20.0	-1.3	10.2	-1.3	24.5	-0.7
<i>Digestive diseases</i>	M	83.1	-1.2	49.6	-0.8	129.7	0.7
	F	36.4	-1.9	20.3	-0.7	57.3	1.9
<i>External causes</i>	M	407.0	-4.2	62.8	-1.0	409.2	-0.9
	F	92.8	-3.7	20.9	-0.9	89.1	-1.1
Road traffic injuries	M	44.3	-2.1	13.0	-1.3	28.5	-1.8
	F	11.9	1.8	4.1	-2.1	7.5	-1.4
Self-inflicted (suicide)	M	73.4	-5.3	23.1	-1.1	68.1	-2.4
	F	12.8	-5.7	8.5	-1.2	10.2	-3.4

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

Causes of death	Sex	Latvia (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	2853.0	-1.9	1570.9	-1.9	3411.7	-0.1
	M	4401.1	-2.3	2156.9	-2.1	4996.4	0.1
	F	1877.3	-1.9	1069.2	-1.9	2339.0	-0.6
<i>Malignant neoplasms</i>	M	1121.4	-0.8	851.3	-1.4	1002.5	-0.8
	F	480.7	0.1	439.8	-1.1	438.9	-0.7
Trachea/bronchus/lung cancer	M	355.9	-1.5	261.8	-1.9	321.7	-1.5
Female breast cancer	F	32.5	-2.6	59.0	0.2	37.1	-1.4
<i>Cardiovascular diseases</i>	F	79.0	2.1	79.7	-1.6	68.7	1.3
	M	2396.3	-2.6	744.9	-3.6	2903.0	0.6
Ischaemic heart disease	F	1031.6	-2.9	335.7	-3.9	1507.8	-0.3
	M	1354.5	-3.3	381.3	-4.2	1582.2	1.2
<i>Cerebrovascular diseases</i>	F	482.1	-3.3	133.5	-4.6	731.4	0.5
	M	707.7	-2.6	143.3	-3.7	833.7	0.2
<i>Respiratory diseases</i>	F	410.9	-3.3	86.7	-4.1	528.9	-0.8
	M	154.3	-5.2	144.0	-3.5	303.0	-2.4
<i>Digestive diseases</i>	F	36.9	-4.0	62.5	-2.4	68.6	-3.6
	M	152.6	-1.2	111.6	-1.6	193.0	0.1
<i>External causes</i>	F	67.4	-2.0	54.1	-1.7	94.2	0.2
	M	344.8	-3.8	79.3	-1.4	320.0	1.0
Road traffic injuries	F	95.5	-2.6	32.1	-2.1	88.7	-0.5
	M	28.6	-4.6	14.8	-3.0	24.3	-1.5
Self-inflicted (suicide)	F	14.9	-0.6	5.9	-3.4	9.5	-1.0
	M	59.3	-5.2	24.5	-1.6	60.5	-0.8
	F	13.6	-3.8	8.7	-2.6	12.7	-3.1

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

Causes of death	Sex	Latvia (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	10727.6	-1.5	8059.6	-1.0	12338.8	0.0
	M	13163.5	-1.8	9832.0	-1.1	14838.0	0.1
	F	9918.9	-1.3	7112.5	-0.9	11421.7	0.0
<i>Malignant neoplasms</i>	M	2008.5	1.5	2231.1	-0.4	1489.3	1.2
	F	908.6	2.3	1136.2	-0.4	721.7	0.8
Trachea/bronchus/lung cancer	M	372.2	-0.9	457.1	-0.7	323.5	1.0
Female breast cancer	F	71.6	4.9	102.7	1.5	55.6	0.5
<i>Cardiovascular diseases</i>	F	103.6	4.3	159.6	-0.4	92.0	3.1
	M	8729.7	-2.0	4356.2	-2.1	10221.2	0.4
Ischaemic heart disease	F	7285.8	-1.5	3577.9	-1.9	8805.6	0.4
	M	4397.7	-3.0	1708.0	-2.2	4925.6	1.4
<i>Cerebrovascular diseases</i>	F	3417.5	-2.8	1150.0	-2.2	4028.6	1.2
	M	3310.9	-1.5	1119.8	-2.5	3004.4	0.7
<i>Respiratory diseases</i>	F	2990.5	-1.1	1026.9	-2.4	2967.6	0.5
	M	365.0	-3.4	1156.5	-2.4	824.1	-2.1
<i>Digestive diseases</i>	F	103.6	-4.4	591.9	-2.1	302.3	-3.2
	M	282.8	1.6	340.3	-1.1	270.4	0.3
<i>External causes</i>	F	218.1	3.7	279.8	-0.4	175.0	1.1
	M	408.4	-0.9	275.0	-0.6	604.2	0.1
Road traffic injuries	F	222.2	-0.7	187.8	-1.2	172.4	-1.2
	M	30.5	-5.6	28.1	-2.2	34.6	-3.1
Self-inflicted (suicide)	F	8.9	-7.2	10.0	-3.1	14.7	-1.7
	M	94.6	-1.8	49.5	-1.6	86.6	-1.1
	F	21.6	-5.8	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*¹.

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

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

¹ 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).

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 groups¹ 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, 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.

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

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. ¹
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.

¹WHO 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).