WORLD HEALTH ORGANIZATION
EUROPE

Highlights on health in Switzerland

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 27 countries with very low child mortality and very low adult mortality, designated Eur-A by WHO, as the reference group. Eur-A comprises Andorra, Austria, Belgium, Croatia, Cyprus, the Czech Republic, Denmark, Germany, Greece, Finland, France, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Monaco, the Netherlands, Norway, Portugal, San Marino, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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

HEALTH STATUS
BURDEN OF DISEASE
COMPARATIVE STUDY
SWITZERLAND

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Summary: findings and policy considerations

Life expectancy

WHO estimates that a person born in Switzerland in 2002 can expect to live 80.6 years on average: 83.3 years if female and 77.7 years if male. Life expectancy (LE) in Switzerland is more than one year higher than the Eur-A average for males and females.

Since 1980, Swiss people have gained about 4.7 years in LE, with a greater gain for men (5.2 years) than women (4.2 years). The gain for women equals the Eur-A average gain while the gain for men is some half a year higher than the average.

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 rates in Switzerland have remained below Eur-A averages, but with the stagnation of Swiss rates since the mid-1990s, the difference has practically disappeared.

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 general, mortality rates in Switzerland are 13% lower than the Eur-A average for both sexes.

In 2001, selected main non-communicable diseases accounted for about 81% of all deaths in Switzerland, external causes for slightly more than 7% and communicable diseases for somewhat over 1%. In total, 36% of all deaths were caused by diseases of the circulatory system and 28% by cancer. The Swiss have lower risks of dying from cardiovascular diseases and from cancer than the Eur-A averages. On the other hand, men 45 years old and over, and females in all age groups except 15–29, have a higher risk of death due to external causes and poisoning.

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)

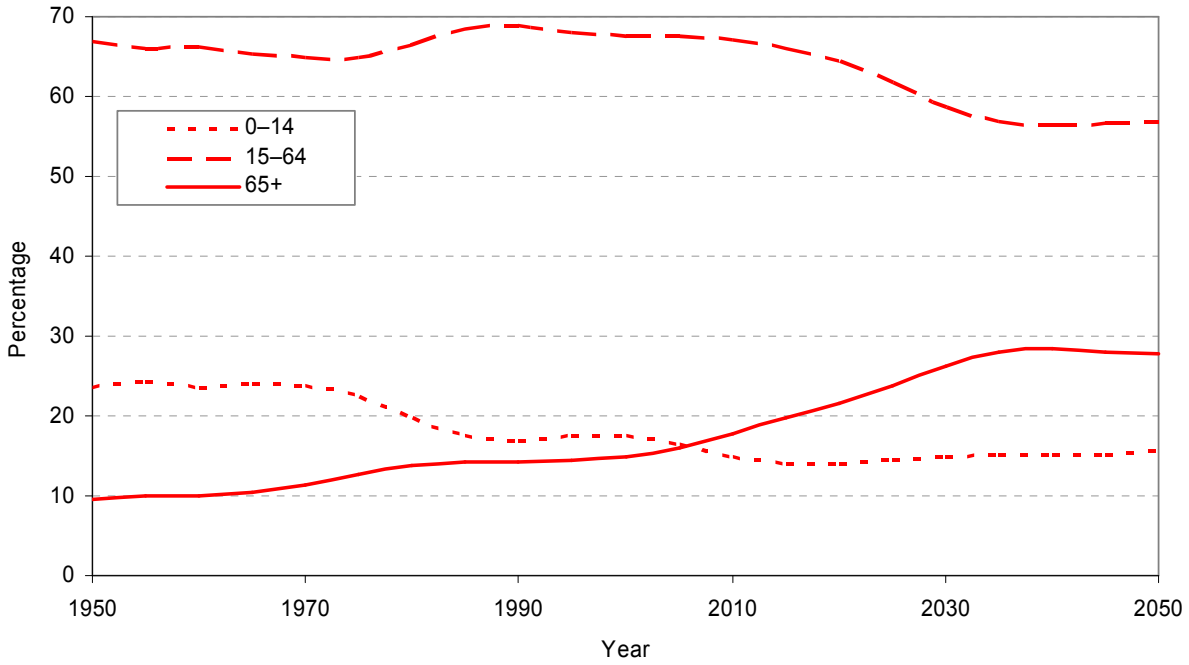
Selected demographic and socioeconomic information

Population profile

About 7.2 million people lived in Switzerland in mid-2003, with the same proportion of people 0 to 14 years of age as the Eur-A average and a slightly lower percentage of people over 65.

The most striking demographic feature observed across most Eur-A countries is the increase in the proportion of elderly people. As the large birth cohorts of the late 1940s approach retirement age, the number of people in Switzerland 65 and over is expected to grow from about 15% of the population in 2003 (Council of Europe, 2005) to 26% in 2030. (Annex. Age pyramid; Figure. Population trends).

Percentage of the population aged 0–14, 15–64 and 65+ years, Switzerland, 1950 to 2050 (projected)



Source: United Nations (2005).

The birth rate in Switzerland is the average for Eur-A in 2003. Natural population increase and net migration in Switzerland are above the Eur-A averages (Table. Selected demographic indicators).

Selected demographic indicators in Switzerland and Eur-A
2001 or latest available year

Indicators	Switzerland	Eur-A		
	Value	Average	Minimum	Maximum
Population (in 1000s)[b]	7169.0	–	–	–
0–14 years (%)	17.2	–	–	–
15–64 years (%)	67.5	–	–	–
65+ years (%)	15.4	–	–	–
Urban population (%)[a]	67.6	78.5	50.8	100.0
Live births (per 1000)	10.1	10.7	8.6	21.7
Natural population growth (per 1000)	1.7	1.1	–2.9	15.9
Net migration (per 1000)	5.9	3.5	–0.5	8.8

[a] 2002; [b] 2003

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

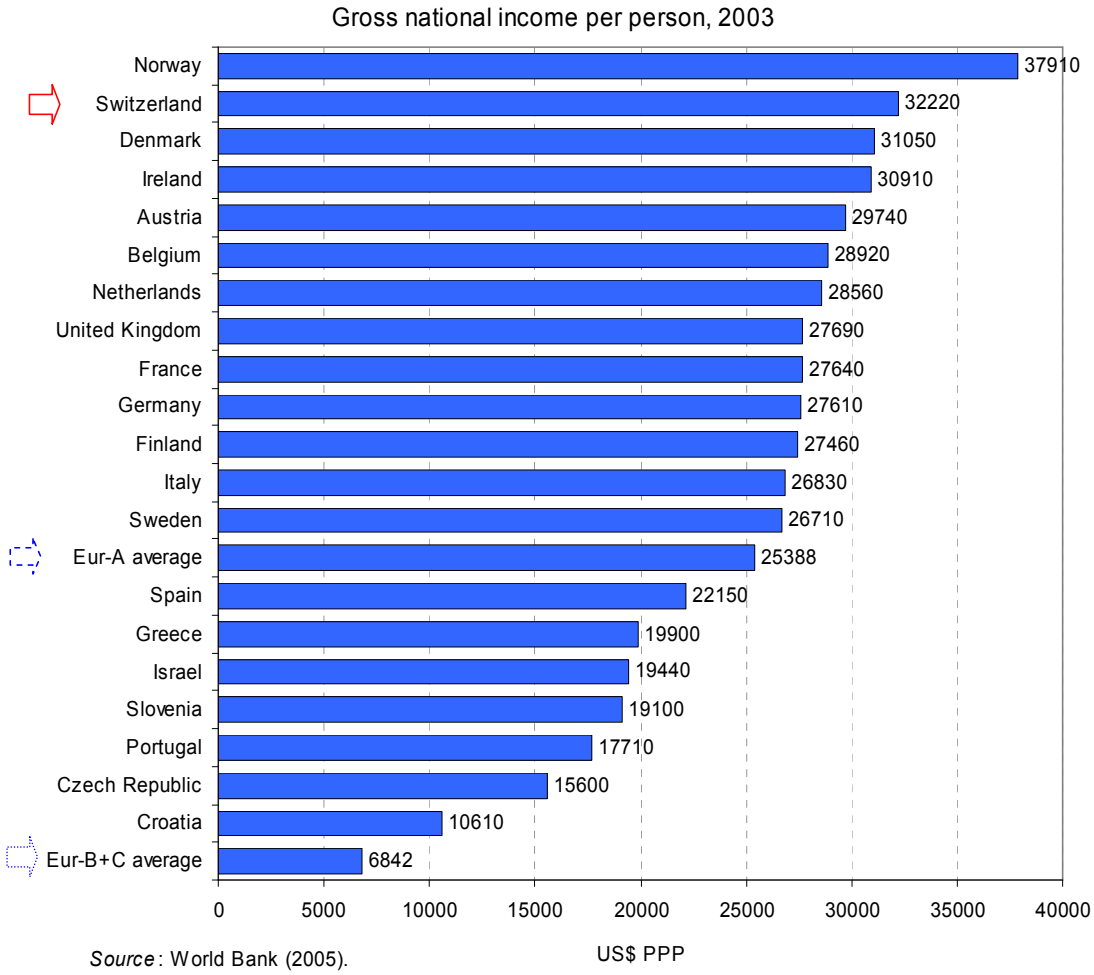
There is an income gradient affecting health: the poor generally suffer worse health and die younger than people with higher incomes. For instance, the latter are better able to afford the goods and services that contribute to health, for example, better food and living conditions.

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 Switzerland, per capita gross national income, adjusted for purchasing power parity, was US$32 220 in 2003, the second highest in the Eur-A group after Norway. The Eur-A average that year was US$25 388 (Figure. Gross national income per person).



Source: World Bank (2005).

In 2001, 6.8% of children in Switzerland lived in relative poverty, meaning they lived in households with income below 50% of the national median income. Among OECD countries with data for 2000 and 2001, Denmark had the lowest percentage of children living in poverty (2.4% in 2000) and the United States had the highest (21.9% in 2000). Norway is the only OECD country where child poverty is very low and continues to fall (UNICEF, 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.

In 2000, the proportion of children enrolled in secondary schools in Switzerland was 87.9%, compared to 88.5% on average in Eur-A countries. Among the Eur-A countries reporting data that year, the lowest enrolment rate was 79.7% in Luxembourg and the highest was 96.0% in Slovenia (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.

Unemployment rates in Switzerland are typically below Eur-A averages. In 2002, 2.9% of the total labour force was unemployed compared to the Eur-A average of 6.7% 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 (ILO, 2005). Over the period 2000 to 2002, 21.3% of those unemployed had been so for a year or longer (World Bank, 2005).

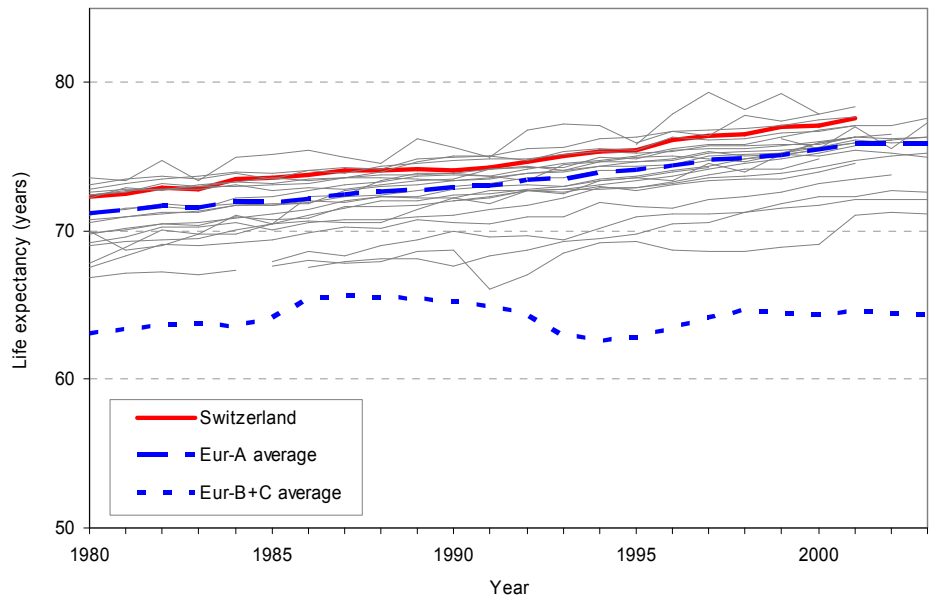
Unemployment rates among 15 – 24 year-olds in Switzerland are predictably higher than the total national unemployment rates but still usually lower than in Eur-A. In 2002, the Swiss rate (5.7%) was less than half the Eur-A rate (14.7%) (ILO, 2005).

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

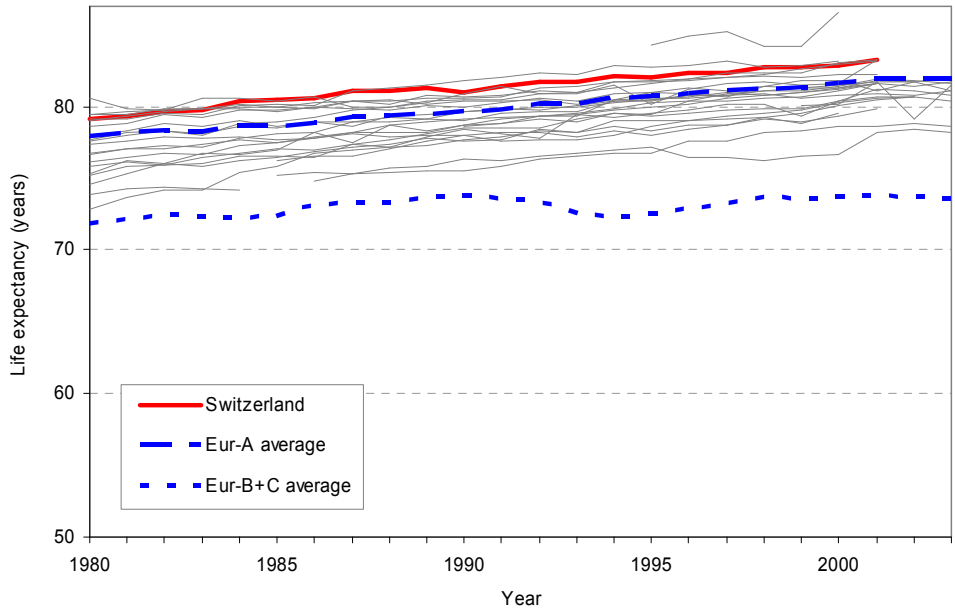
From 1980, life expectancy in Switzerland rose about 4.7 years, to 80.6 in 2002.

Infant and neonatal mortality rates have remained stable below Eur-A averages since the mid-1990s. According to WHO (2003c) estimates, a person born in Switzerland in 2002 could expect to live 80.6 years on average: 83.3 years for women and 77.7 years for men. Life expectancy (LE) in Switzerland is more than a year above the Eur-A average for males and females (Figure. Life expectancy for males; Figure. Life expectancy for females).

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

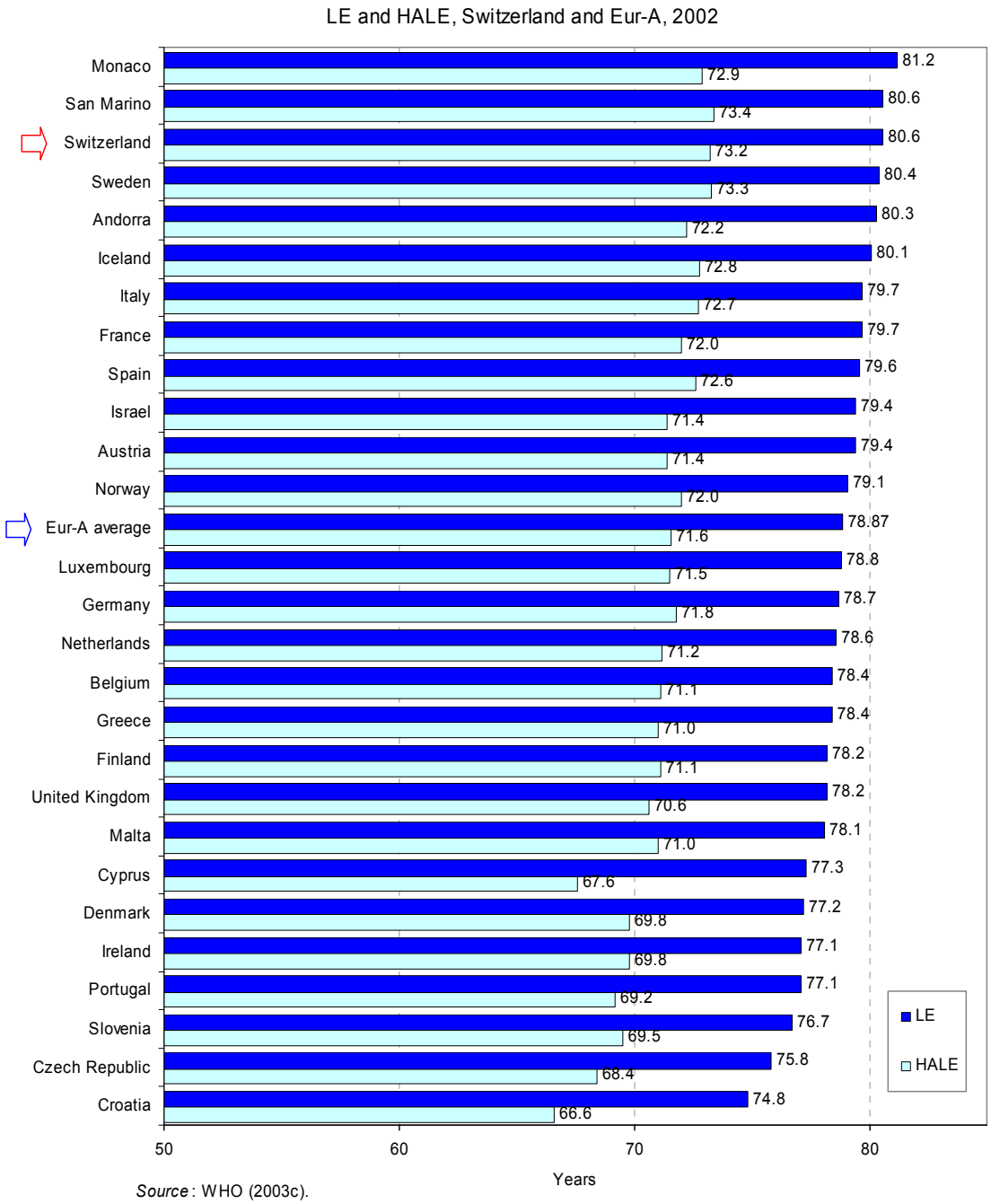


Life expectancy at birth for females, Switzerland, Eur-A and Eur-B+C averages, 1980 to latest available year



Since 1980, the Swiss have gain about 4.7 years LE, with a greater gain for men (5.2 years) than women (4.2 years). The gain for women equals the Eur-A average, but is a half a year higher for men.

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 Switzerland, WHO (2003c) estimates that people can expect to be healthy for about 91% of their lives. They lose an average of 7.4 years to illness – the difference between LE and HALE. This loss is similar to the Eur-A average (7.3 years) and the Eur-B+C average (7.6 years) (Figure. LE and HALE).



Source: WHO (2003c).

Since women live longer and since the possibility of deteriorating health increases with age, women lose more healthy years of life (8.0) than men (6.6). Nevertheless, the longer LE for women gives them a bit more than four extra years of healthy life. Among people 60 years old, females survive more than three years longer (20.4 years) in good health than males (17.1 years) 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 table below has the top 10 conditions, in descending order, that account for approximately 90% of the disease burden by gender in Switzerland. As in most countries in western Europe, neuropsychiatric conditions account for the most DALYs among both males and females. Because mortality from these conditions is minor, disability in daily living comprises the bulk of their burden on the population's health (Table. Ten leading disability groups).

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

Rank	Males		Females	
	Disability groups	Total DALYs (%)	Disability groups	Total DALYs (%)
1	Neuropsychiatric conditions	28.2	Neuropsychiatric conditions	34.4
2	Malignant neoplasms	16.6	Malignant neoplasms	14.8
3	Cardiovascular diseases	15.8	Cardiovascular diseases	13.0
4	Unintentional injuries	6.1	Musculoskeletal diseases	6.2
5	Respiratory diseases	5.7	Sense organ diseases	6.0
6	Sense organ diseases	5.1	Respiratory diseases	4.3
7	Intentional injuries	4.2	Digestive diseases	3.6
8	Musculoskeletal diseases	3.9	Unintentional injuries	3.2
9	Digestive diseases	3.4	Diabetes mellitus	2.2
10	Infectious and parasitic diseases	2.2	Infectious and parasitic diseases	2.1

Source: Background data from WHO (2003).

Main risk factors

The following table has the top 10 risk factors with their relative contributions, in descending order, to disease burden by gender. According to DALYs, tobacco use places the greatest burden on the Swiss population, estimated using current levels of smoking impact (such as lung cancer mortality) and the prevalence of oral tobacco use (Table. Ten leading risk factors).

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

Rank	Males		Females	
	Risk factors	Total DALYs (%)	Risk factors	Total DALYs (%)
1	Tobacco	14.5	Tobacco	6.6
2	Alcohol	11.3	High BMI	6.1
3	High blood pressure	7.2	High blood pressure	5.3
4	High BMI	5.9	High cholesterol	3.8
5	High cholesterol	5.9	Alcohol	2.8
6	Illicit drugs	3.6	Physical inactivity	2.2
7	Physical inactivity	2.6	Illicit drugs	1.7
8	Low fruit and vegetable intake	2.1	Unsafe sex	1.6
9	Occupational airborne particulates	0.8	Low fruit and vegetable intake	1.2
10	Unsafe sex	0.5	Childhood sexual abuse	0.9

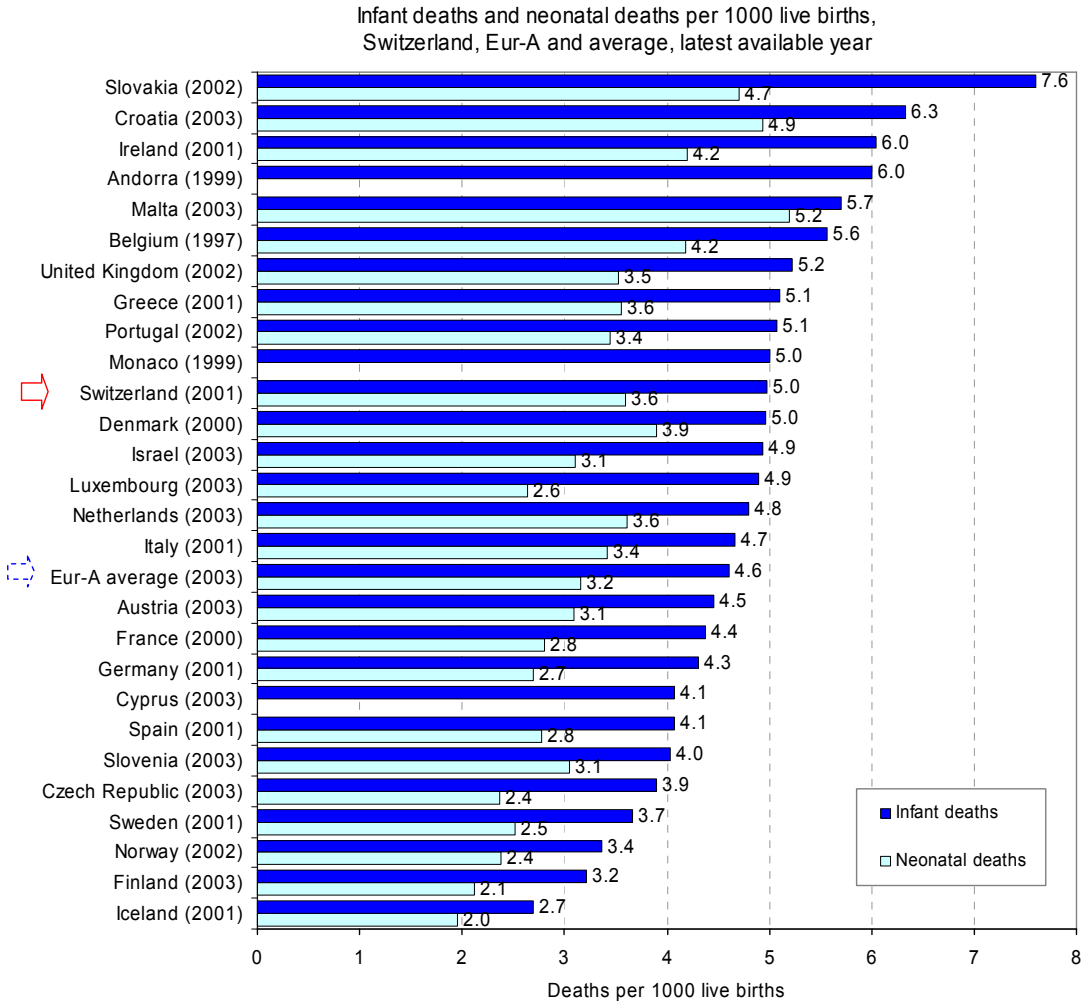
Source: Background data from WHO (2003).

Mortality

Infant, neonatal and child mortality

Both infant and neonatal mortality in Switzerland have remained below the Eur-A average, but after the stagnation of Swiss rates since the mid-1990s, the difference has practically disappeared.

National data and WHO estimates for 2003 agree that for every 1000 live births in Switzerland, there was a probability that between five and six children would die before age five. The Swiss rate was close to the Eur-A average rate for that year (Figure. Infant deaths and neonatal deaths).



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).

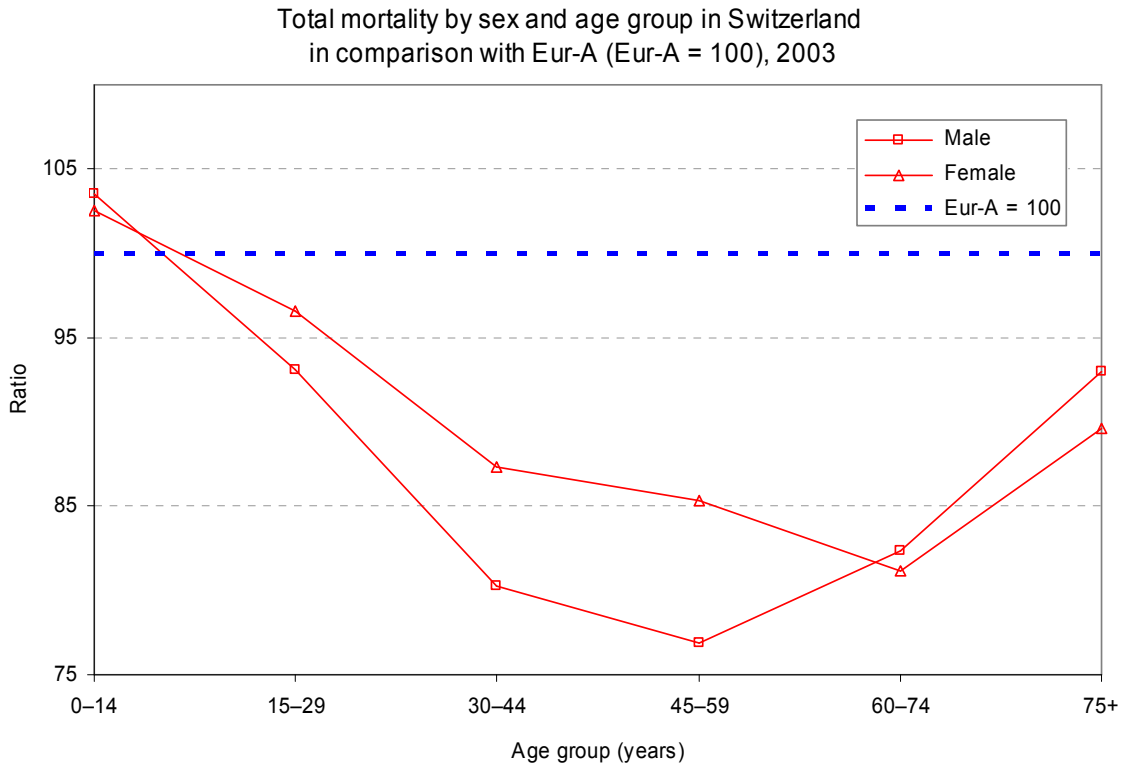
However, in some countries, MMR were higher in 2002 than they had been in 1990. Applying the 75% reduction to the 1990 baseline in these countries creates, in some cases, a 2015 MDG target that requires dramatic reductions in MMR before 2015. In these cases, more important than reaching maternal

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.

The Swiss maternal mortality ratio has also been below the Eur-A average, but the most current rates are within the same range. From 1997 to 2001, 2 out of 18 maternal deaths were due to induced or spontaneous abortion (including ectopic pregnancies).

Excess mortality

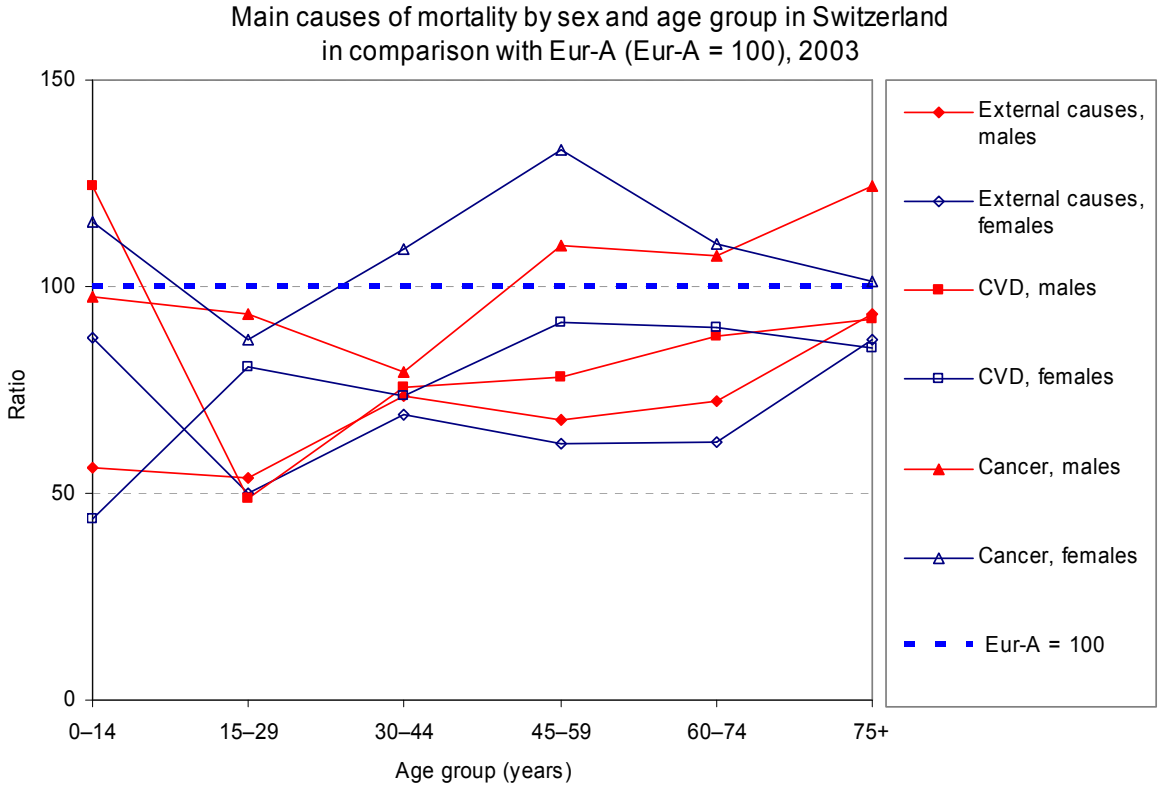
In general, mortality rates in Switzerland are 13% lower than the Eur-A average for both sexes. Only the youngest age group (0–14 years) has a few percent units higher mortality risk than the Eur-A average. All other age groups have a smaller risk, especially people 30–74 years old (Figure. Total mortality by sex and age group).



Main causes of death

In 2001, selected main non-communicable diseases accounted for about 81% of all deaths in Switzerland, external causes for slightly more than 7% and communicable diseases for somewhat over 1%. In total, 36% of all deaths were caused by diseases of the circulatory system and 28% by cancer. (Annex. Selected mortality. Annex. Mortality data)

The Swiss have a lower risk for dying from CVDs than the Eur-A average, especially in age groups 0–74. The risk of cancer death is also lower in Switzerland than in the Eur-A countries on average (excluding males 0–14 years old, but this can be explained by a low number of cancer deaths in childhood and adolescence in general). Compared to the Eur-A average, the death risk for external causes and poisoning is increased among men 45 and older and among women in all age groups except 15–29 (Figure. Main causes of mortality by sex and age group).



CVD

Mortality for CVD has decreased in both Switzerland and Eur-A since 1980. This development has been similar for both sexes in all age groups, and the Swiss rates have remained well below the Eur-A average.

Ischemic heart disease is the single biggest killer in Switzerland, having caused 15% of all deaths in 2001. As for all CVDs, the Swiss rate is declining and remains below the Eur-A average except for people 75 and older. The mortality rate from cerebrovascular diseases is falling in all age groups for both sexes.

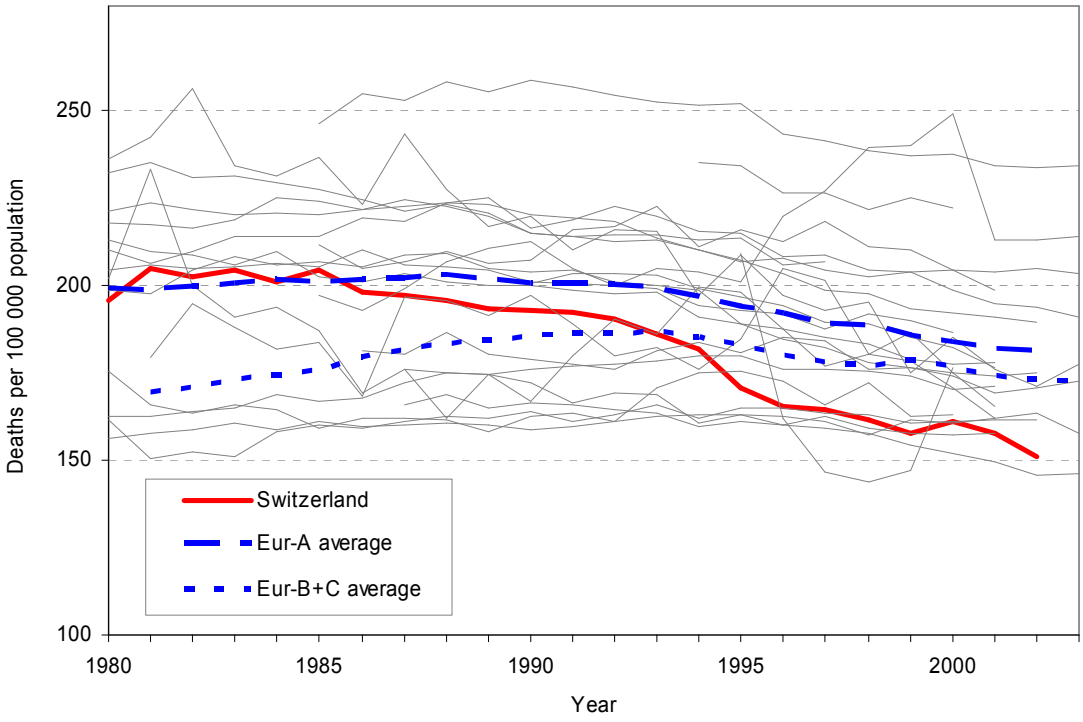
Cancer

Cancer causes every fifth death in Switzerland. Men and women had the same cancer death risk as the Eur-A region in general in the early 1980s. Since then, the decrease in the Swiss death rate started earlier and was faster than in Eur-A countries. The most recent rates are 13% lower than the Eur-A average for both males and females.

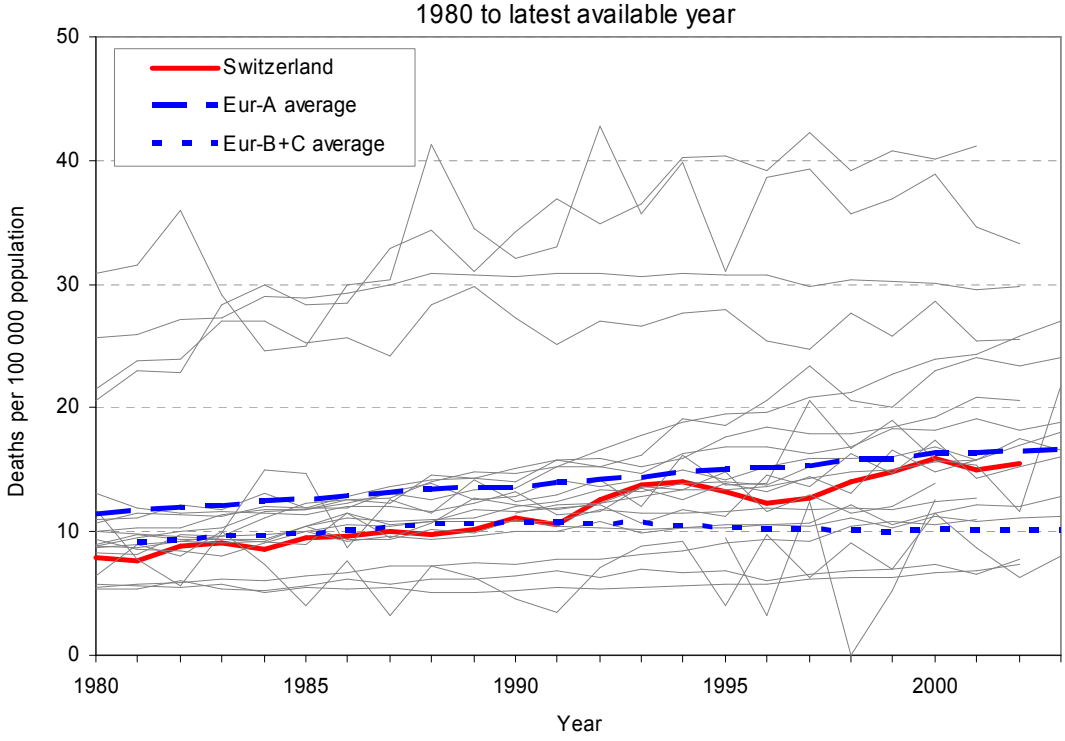
The risks for dying of stomach, colorectal, pancreatic, bladder, lymphoid and haematopoietic, breast, cervical, uterine and ovarian cancers are declining in Switzerland, and the current rates are below the Eur-A averages. The death rates for skin cancer and prostate cancer are also decreasing, but remain 10–20% above the Eur-A average.

The death rates for lip, oesophageal, liver, laryngeal, tracheal, bronchial and lung cancers are increasing, though the Swiss rates are still below the Eur-A average. One significant exception is lung cancer among females, who already have higher mortality rates than the Eur-A average, reflecting smoking patterns of recent decades (Figure. SDR for cancer in people of all ages; Figure. SDR for trachea, bronchus and lung cancer in females of all ages).

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



SDR for trachea, bronchus and lung cancer in females of all ages, Switzerland, Eur-A and Eur-B+C averages, 1980 to latest available year

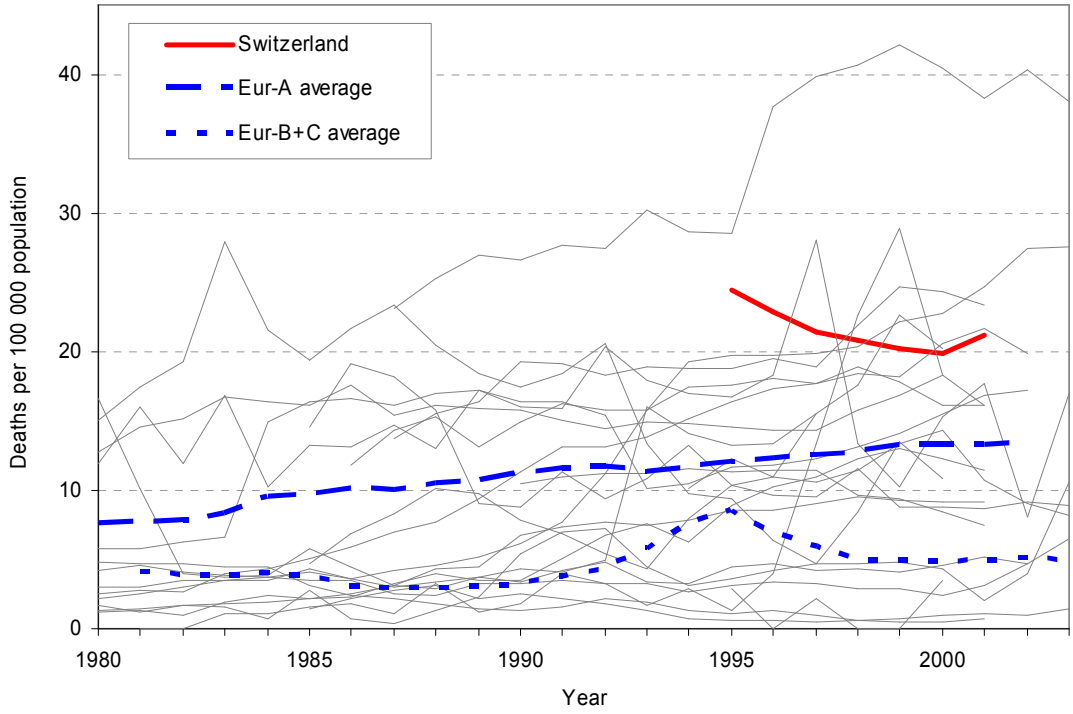


Other causes of death (diseases and medical conditions)

Swiss mortality from mental disorders and diseases of the nervous system are higher than the Eur-A averages. The nervous disease rate has even increased since the mid-1990s, mainly because of

Alzheimer's and other degenerative diseases of nervous system (Figure. SDR for mental disorders and diseases of the nervous system and the sensory organs in people of all ages).

SDR for mental disorders and diseases of the nervous system and the sense organs in people of all ages, Switzerland, Eur-A and Eur-B+C averages, 1980 to latest available year

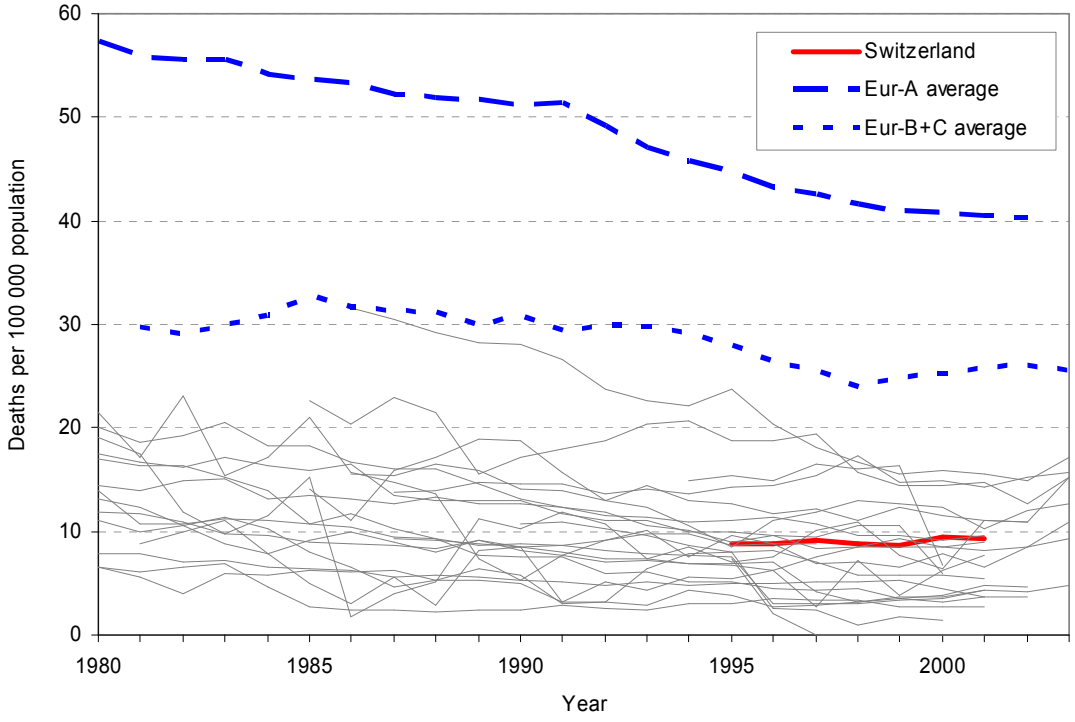


External causes

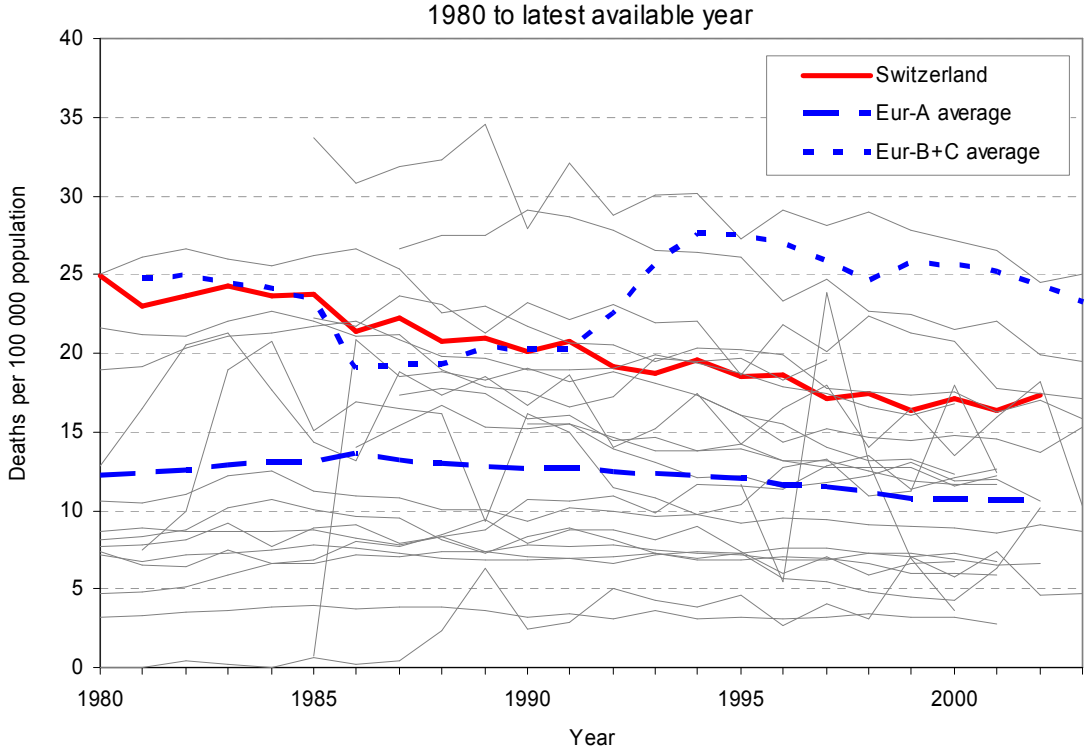
Mortality from external causes has decreased significantly in Switzerland since the mid-1970s, and the current Swiss rate has reached the Eur-A average. The progress has been similar for both sexes, even though males have a much higher rate than females. However, part of this significant decline is caused by the change in the cause-of-death statistics from ICD-8 to ICD-10 classification in 1995.

For most of the components of injury and accident deaths, the Swiss rate remains at the level of Eur-A average or below: all accidents, transport accidents, motor vehicle transport accidents, drowning, exposure to smoke, fire and flames, and accidental poisoning. An exception is accidental falls, for which the Swiss mortality rate is higher than the Eur-A average and increasing. The trend is similar for both sexes in all age groups, but more significant among elderly people. Suicides have become less frequent among both men and women in Switzerland, but the Swiss rates are still high in all groups over age 15. Among the elderly, the suicide rate is increasing, especially for women (Figure. SDR for accidental falls in people of all ages; Figure. SDR for suicide and self-inflicted injury in people of all ages).

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



SDR for suicide and self-inflicted injury in people of all ages, Switzerland, Eur-A and Eur-B+C averages, 1980 to latest available year



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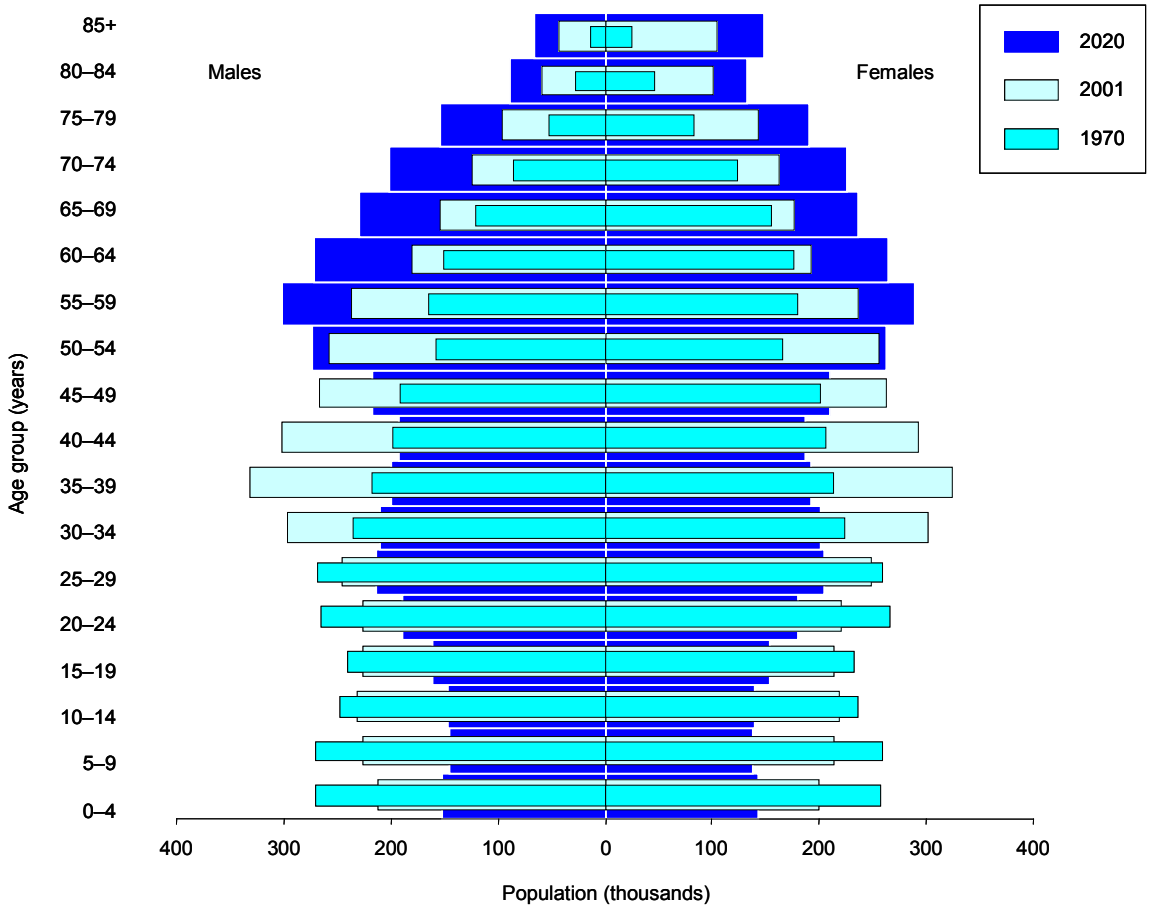
Annexes

Annex. Age pyramid



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

Annex. Selected mortality

Selected mortality in Switzerland compared with Eur-A average

Condition	SDR per 100 000		Excess mortality in Switzerland (%)	Total deaths in Switzerland (%)	Total deaths in Eur-A (%)
	Switzerland (2001)	Eur-A average (2002)			
Selected non-communicable conditions	453.2	533.8	–15.1	80.8	82.4
Cardiovascular diseases	199.1	243.4	–18.2	35.5	37.6
Ischaemic heart disease	85.4	95.9	–10.9	15.2	14.8
Cerebrovascular diseases	35.2	61.1	–42.4	6.3	9.4
Diseases of pulmonary circulation and other heart disease	50.3	56.6	–11.1	9.0	8.7
Malignant neoplasms	157.7	181.5	–13.1	28.1	28.0
Trachea/bronchus/lung cancer	30.6	37.1	–17.5	5.5	5.7
Female breast cancer	25.9	27.0	–4.1	4.6	4.2
Colon/rectal/anal cancer	16.3	20.7	–21.3	2.9	3.2
Prostate	30.3	25.1	20.7	5.4	3.9
Respiratory diseases	31.3	47.8	–34.5	5.6	7.4
Chronic lower respiratory diseases	15.2	20.2	–24.8	2.7	3.1
Pneumonia	10.7	16.2	–34.0	1.9	2.5
Digestive diseases	22.2	30.8	–27.9	4.0	4.8
Chronic liver disease and cirrhosis	7.8	12.6	–38.1	1.4	1.9
Neuropsychiatric disorders	42.9	30.3	41.6	7.6	4.7
Communicable conditions	6.7	8.4	–20.2	1.2	1.3
AIDS/HIV	1.6	1.1	45.5	0.3	0.2
External causes	41.5	40.3	3.0	7.4	6.2
Unintentional	24.0	28.7	–16.4	4.3	4.4
Road traffic injuries	6.0	9.9	–39.4	1.1	1.5
Falls	9.2	6.1	50.8	1.6	0.9
Intentional	17.5	11.6	50.9	3.1	1.8
Self-inflicted (suicide)	16.4	10.6	54.7	2.9	1.6
Violence (homicide)	1.1	1.0	10.0	0.2	0.2
Ill-defined conditions	20.0	20.9	–4.3	3.6	3.2
All causes	561.1	647.8	–13.4	100.0	100.0

Annex. Mortality data

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

Causes of death	Sex	Switzerland (2001)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	51.0	–1.2	49.4	–2.4	151.7	–3.8
	M	57.2	–1.8	55.3	–2.5	170.5	–3.9
	F	44.4	–0.4	43.3	–2.4	131.9	–3.8
Infectious and parasitic diseases	M	2.2	–0.9	1.4	–1.1	10.9	–7.0
	F	1.5	–5.4	1.1	–3.0	9.5	–6.6
Intestinal infectious diseases	M	0.2		0.2	–0.7	5.1	–8.2
	F	0.0	–16.7	0.1	–7.3	4.7	–7.9
Malignant neoplasms	M	4.1	4.7	3.3	–1.8	5.1	–1.9
	F	1.1	–9.6	2.6	–1.8	4.2	–1.9
Cardiovascular diseases	M	0.8	–2.9	1.4	–3.1	3.3	1.1
	F	1.2	–2.5	1.3	–2.5	2.6	0.1
Respiratory diseases	M	1.0	9.6	1.4	–4.3	35.9	–5.0
	F	0.7	18.9	1.0	–4.2	30.7	–5.0
Pneumonia	M	0.4	1.2	0.5	–6.0	20.9	–4.9
	F	0.2		0.4	–5.1	17.9	–4.7
Certain conditions originating in perinatal period	M	253.1	3.4	255.3	–2.1	607.6	–2.7
	F	215.8	1.7	202.3	–1.6	427.5	–2.7
Congenital malformations & chromosomal abnormalities	M	13.2	–3.1	11.6	–2.9	24.2	–2.8
	F	12.0	2.7	10.0	–3.3	21.0	–2.6
Ill-defined causes	M	4.8	–7.8	5.0	–3.9	5.6	–0.6
	F	3.4	–7.1	3.4	–4.2	4.6	–1.0
External causes of injury & poisoning	M	6.9	–6.3	7.0	–4.0	29.0	–3.4
	F	5.3	4.9	4.6	–3.2	18.1	–3.1
Road traffic injuries	M	1.8	–9.1	2.5	–4.5	4.7	–2.6
	F	1.8	–1.5	1.7	–4.8	3.0	–1.6

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

Causes of death	Sex	Switzerland (2001)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	52.6	–5.4	56.0	–2.3	161.0	–0.9
	M	76.3	–5.4	82.0	–2.3	241.7	–1.0
	F	28.3	–5.7	29.3	–2.2	79.0	–0.6
Infectious and parasitic diseases	M	0.7	–14.8	1.2	1.5	12.3	3.0
	F	1.3	–9.6	0.8	1.9	5.1	2.5
Malignant neoplasms	M	3.0	–9.2	6.2	–1.0	8.8	–1.9
	F	3.8	–0.9	4.7	–1.4	7.7	–1.9
Cardiovascular diseases	M	2.2	–4.0	4.1	–2.4	17.6	0.0
	F	1.2	–8.1	2.3	–2.0	7.3	–0.9
Respiratory diseases	M	1.2	1.0	1.4	–3.6	6.9	0.2
	F	0.9	21.6	0.9	–2.7	3.8	–1.1
Digestive diseases	M	0.3	–5.9	0.9	–3.5	8.0	3.0
	F	0.0	–16.7	0.5	–3.8	3.7	3.1
Ill-defined causes	M	2.8	–8.0	4.0	–3.1	11.6	7.1
	F	1.4	–6.6	1.4	–1.3	3.3	5.8
External causes	M	54.5	–2.5	58.3	–1.4	162.4	–1.6
	F	12.5	–5.3	14.4	–1.6	36.9	–0.2
Road traffic injuries	M	16.6	–5.0	28.5	–1.3	27.8	–1.5
	F	2.3	–10.9	7.3	–1.4	8.0	0.3
Accidental drowning	M	1.7	1.5	1.3	–2.2	10.8	–3.9
	F	0.4	0.1	0.2	–2.1	1.9	–2.2
Accidental poisoning	M	0.9	–9.5	2.8	0.0	19.1	3.3
	F	0.2	–5.7	0.7	0.8	4.4	2.5
Self-inflicted (suicide)	M	21.0	–2.4	12.7	–1.8	36.8	0.0
	F	5.6	–3.4	3.1	–2.2	5.8	–1.3

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

Causes of death	Sex	Switzerland (2001)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	99.4	–4.6	120.3	–2.5	453.8	–0.7
	M	129.8	–4.6	161.6	–2.6	700.0	–0.8
	F	68.5	–4.4	78.5	–2.1	215.6	–0.2
Malignant neoplasms	M	20.8	–3.2	27.6	–2.3	40.2	–2.8
	F	23.1	–3.7	31.3	–2.0	43.8	–1.4
Trachea/bronchus/lung cancer	M	4.1	–1.8	5.0	–3.4	7.3	–4.2
	F	3.0	–1.9	2.8	–0.6	2.2	–1.0
Female breast cancer							
	F	7.3	–5.6	10.0	–2.6	10.0	–2.3
Cardiovascular diseases	M	19.2	–1.6	26.1	–2.5	158.6	–0.4
	F	7.2	–2.3	10.4	–2.1	45.3	0.0
Ischaemic heart disease	M	8.1	–4.5	11.8	–3.1	73.7	–2.2
	F	1.1	–4.9	2.4	–2.7	14.4	–1.3
Cerebrovascular diseases	M	2.4	–1.3	4.4	–3.2	24.6	–0.4
	F	1.6	–4.7	3.6	–2.5	10.6	–1.3
Respiratory diseases	M	1.4	–2.3	3.9	–3.5	34.3	0.9
	F	0.9	–2.6	2.2	–2.0	9.8	0.8
Digestive diseases	M	4.5	–6.1	12.6	–2.4	50.2	1.4
	F	2.8	–1.1	5.4	–1.7	19.4	4.1
External causes	M	46.5	–2.0	58.8	–1.2	299.5	–1.9
	F	16.5	–2.9	15.1	–1.8	58.9	–1.0
Road traffic injuries	M	8.1	–4.9	16.0	–0.5	31.4	–1.7
	F	2.4	–5.8	3.9	–2.0	7.1	–0.5
Self-inflicted (suicide)	M	23.7	–2.5	21.2	–1.5	54.9	–2.4
	F	9.3	–0.7	5.8	–2.2	7.9	–2.5

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

Causes of death	Sex	Switzerland (2001)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	348.2	–2.3	435.6	–1.3	1294.9	–0.6
	M	445.7	–2.5	580.1	–1.4	1981.7	–0.6
	F	250.2	–1.8	293.3	–1.0	698.9	–0.5
Malignant neoplasms	M	170.1	–1.7	218.2	–1.2	323.2	–1.9
	F	141.5	–1.4	155.0	–1.0	186.1	–0.5
Trachea/bronchus/lung cancer	M	50.0	–1.5	65.9	–1.5	101.4	–2.9
	F	23.1	3.8	21.8	3.4	15.4	1.0
Female breast cancer							
	F	42.1	–2.5	44.0	–2.2	45.3	0.1
Cardiovascular diseases	M	106.1	–4.2	156.4	–2.6	793.1	–0.1
	F	31.6	–3.1	50.9	–2.5	271.7	–0.6
Ischaemic heart disease	M	56.2	–5.1	86.2	–3.3	435.3	–0.7
	F	9.8	–3.7	17.8	–3.4	111.1	–0.6
Cerebrovascular diseases	M	10.3	–5.4	23.7	–2.6	168.6	–0.9
	F	7.6	–0.2	14.5	–2.1	88.4	–1.4
Respiratory diseases	M	9.2	–2.7	20.3	–1.7	108.7	–1.4
	F	6.4	–1.7	10.2	–1.3	24.5	–0.7
Digestive diseases	M	27.6	–1.9	49.6	–0.8	129.7	0.7
	F	9.9	–6.0	20.3	–0.7	57.3	1.9
External causes	M	68.9	–0.3	62.8	–1.0	409.2	–0.9
	F	27.8	1.6	20.9	–0.9	89.1	–1.1
Road traffic injuries	M	9.5	0.4	13.0	–1.3	28.5	–1.8
	F	2.6	–2.7	4.1	–2.1	7.5	–1.4
Self-inflicted (suicide)	M	36.0	–1.6	23.1	–1.1	68.1	–2.4
	F	14.5	–1.6	8.5	–1.2	10.2	–3.4

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

Causes of death	Sex	Switzerland (2001)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	1282.7	–2.7	1570.9	–1.9	3411.7	–0.1
	M	1777.5	–3.0	2156.9	–2.1	4996.4	0.1
	F	867.7	–2.4	1069.2	–1.9	2339.0	–0.6
Malignant neoplasms	M	748.7	–1.1	851.3	–1.4	1002.5	–0.8
	F	395.5	–1.4	439.8	–1.1	438.9	–0.7
Trachea/bronchus/lung cancer	M	212.7	–1.1	261.8	–1.9	321.7	–1.5
	F	57.4	1.6	59.0	0.2	37.1	–1.4
Female breast cancer							
	F	82.2	–3.5	79.7	–1.6	68.7	1.3
Cardiovascular diseases	M	538.2	–5.2	744.9	–3.6	2903.0	0.6
	F	209.2	–4.8	335.7	–3.9	1507.8	–0.3
Ischaemic heart disease	M	279.9	–6.3	381.3	–4.2	1582.2	1.2
	F	83.5	–6.1	133.5	–4.6	731.4	0.5
Cerebrovascular diseases	M	72.8	–4.1	143.3	–3.7	833.7	0.2
	F	39.5	–6.3	86.7	–4.1	528.9	–0.8
Respiratory diseases	M	96.9	–3.7	144.0	–3.5	303.0	–2.4
	F	42.0	0.8	62.5	–2.4	68.6	–3.6
Digestive diseases	M	76.3	–1.7	111.6	–1.6	193.0	0.1
	F	38.1	1.2	54.1	–1.7	94.2	0.2
External causes	M	85.2	–3.1	79.3	–1.4	320.0	1.0
	F	35.4	–3.0	32.1	–2.1	88.7	–0.5
Road traffic injuries	M	9.4	–5.9	14.8	–3.0	24.3	–1.5
	F	3.1	–8.0	5.9	–3.4	9.5	–1.0
Self-inflicted (suicide)	M	38.4	–2.8	24.5	–1.6	60.5	–0.8
	F	15.9	–4.7	8.7	–2.6	12.7	–3.1

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

Causes of death	Sex	Switzerland (2001)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	7359.4	–1.3	8059.6	–1.0	12338.8	0.0
	M	9140.8	–1.7	9832.0	–1.1	14838.0	0.1
	F	6374.0	–1.1	7112.5	–0.9	11421.7	0.0
Malignant neoplasms	M	2055.3	–0.8	2231.1	–0.4	1489.3	1.2
	F	966.7	–1.4	1136.2	–0.4	721.7	0.8
Trachea/bronchus/lung cancer	M	368.6	0.3	457.1	–0.7	323.5	1.0
	F	68.9	2.2	102.7	1.5	55.6	0.5
Female breast cancer							
	F	151.5	–3.4	159.6	–0.4	92.0	3.1
Cardiovascular diseases	M	4074.6	–2.4	4356.2	–2.1	10221.2	0.4
	F	3125.5	–2.0	3577.9	–1.9	8805.6	0.4
Ischaemic heart disease	M	1811.0	–2.3	1708.0	–2.2	4925.6	1.4
	F	1208.1	–1.4	1150.0	–2.2	4028.6	1.2
Cerebrovascular diseases	M	724.5	–4.1	1119.8	–2.5	3004.4	0.7
	F	622.7	–3.4	1026.9	–2.4	2967.6	0.5
Respiratory diseases	M	806.3	–2.8	1156.5	–2.4	824.1	–2.1
	F	385.5	–0.4	591.9	–2.1	302.3	–3.2
Digestive diseases	M	292.9	0.2	340.3	–1.1	270.4	0.3
	F	258.9	1.4	279.8	–0.4	175.0	1.1
External causes	M	342.2	–1.1	275.0	–0.6	604.2	0.1
	F	190.3	0.1	187.8	–1.2	172.4	–1.2
Road traffic injuries	M	25.1	–6.2	28.1	–2.2	34.6	–3.1
	F	7.4	–6.2	10.0	–3.1	14.7	–1.7
Self-inflicted (suicide)	M	85.0	–0.8	49.5	–1.6	86.6	–1.1
	F	24.0	6.2	11.8	–3.2	22.4	–1.9

Technical notes

Calculation of averages

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

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

Data sources

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

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

Disease coding

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

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

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

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

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

More explanation is provided in the statistical annex and explanatory notes of *The world health report 2003*[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

[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).

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

The country groups[1] used for comparison are called reference groups and comprise:

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

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

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

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

Graphs have usually been used to show time trends from 1980 onwards. These graphs present the trends for all the reference countries as appropriate. Only the country in focus and the group average are highlighted and identified in the legend. This enables the country's trends to be followed in relation to those of all the reference countries, and performance in relation to observable clusters and/or the main trend or average to be recognized more easily.

[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	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.

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