



Highlights on health in Malta 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

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Summary: findings and policy considerations

Life expectancy

WHO estimates that a person born in Malta in 2002 can expect to live 78.1 years on average: 80.3 years if female and 75.9 years if male. Life expectancy (LE) in Malta is around half a year higher than the Eur-A average for males, but more than half a year lower for females. People in Malta spend 7.1 years (9% of LE) with illness.

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 Malta have declined substantially since 1970s, and are currently at the same level as the Eur-A averages.

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

Overall mortality rates for males in Malta are similar to Eur-A averages, but the rates for females are about one tenth higher. In 2003, selected main non-communicable diseases accounted for about 84% of all deaths in Malta (42% were caused by diseases of the circulatory system and 23% by cancer). External causes are attributed to about 5% of all deaths and communicable diseases to less than 1%.

The death rates from cancer and external causes and poisoning are below the Eur-A average, while the death rate from cardiovascular diseases (CVDs) remains slightly above this average.

The death rates for cancer of pancreas, cervix and ovaries have levelled or even increased in Malta and the current rates remain higher than Eur-A averages. Death rates for breast and uterine cancers are also above average. Women are also experiencing increasing mortality due to cancer of the larynx, trachea, bronchus and lung, reflecting the previous trends in smoking.

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)

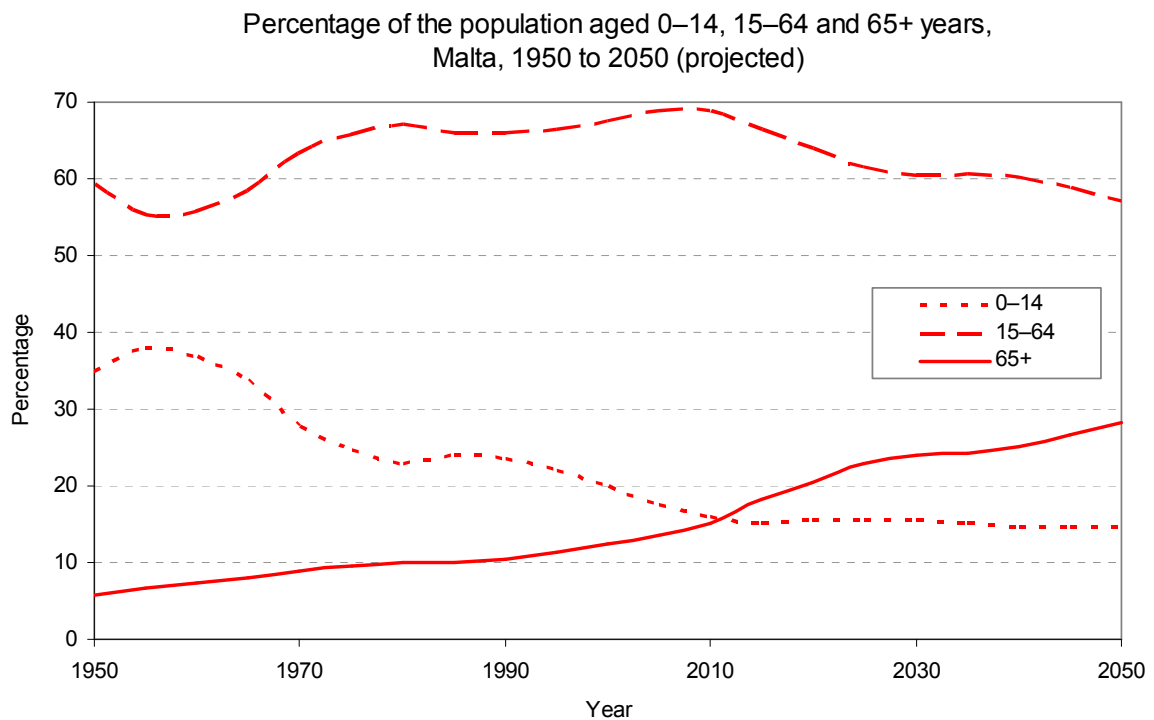
What are the advantages and disadvantages of restructuring a health care system to be more focused on primary health care services? (Health Evidence Network, 2004)

Selected demographic and socioeconomic information

Population profile

In mid 2003, Malta had approximately 400 000 people. Over 90% of the population lives in urban areas, among the highest proportions in Eur-A countries.

The proportion of the population aged 0–14 years old fell from 24% of the population in 1990 to 19% in 2003, although it is still above the Eur-A average. Conversely, the percentage of Malta's population aged 65 years and older is below the Eur-A average. By 2030, an estimated 24% of Malta's population will be 65+ years (Annex: Age pyramid).



Source: United Nations (2005).

The birth rate in Malta was at the Eur-A average in 2003. Natural population increase is positive in Malta and above the Eur-A average, while net migration also is positive but slightly below the average.

Selected demographic indicators in Malta and Eur-A,
2003 or latest available year

Indicators	Malta	Eur-A		
	Value	Average	Minimum	Maximum
Population (in 1000s)	398.6	–	–	–
0–14 years (%)	18.5	–	–	–
15–64 years (%)	68.6	–	–	–
65+ years (%)	12.9	–	–	–
Urban population (%) ^a	91.4	78.5	50.8	100.0
Live births (per 1000)	10.1	10.7	8.6	21.7
Natural population growth (per 1000)	2.2	1.1	–2.9	15.9
Net migration (per 1000)	2.8	3.5	–0.5	8.8

^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.

In 2000, 15% of the Maltese 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). In 2001, for the 17 Eur-A countries for which data are available, the average of people living in relative poverty was 14% (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 school.

In 2000, the proportion of school age children enrolled in secondary schools in Malta was 79.9% compared to the 88.5% Eur-A average. Among the Eur-A countries reporting these data that year, the lowest enrolment rate was Luxembourg's 79.7%, and the highest was Slovenia's 96.0% (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.

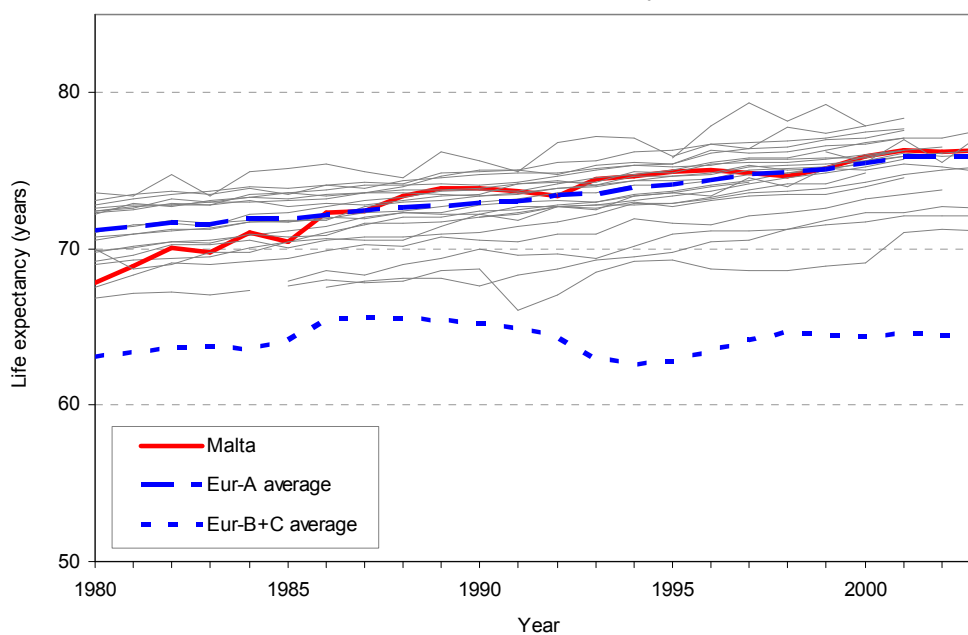
The overall unemployment rate in Malta in 2001 was very close to the Eur-A average (6.5% and 6.2%, respectively), keeping in mind that national rates are based on estimates of people available and seeking employment, and that countries have different definitions of labour force and unemployment (ILO, 2005).

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

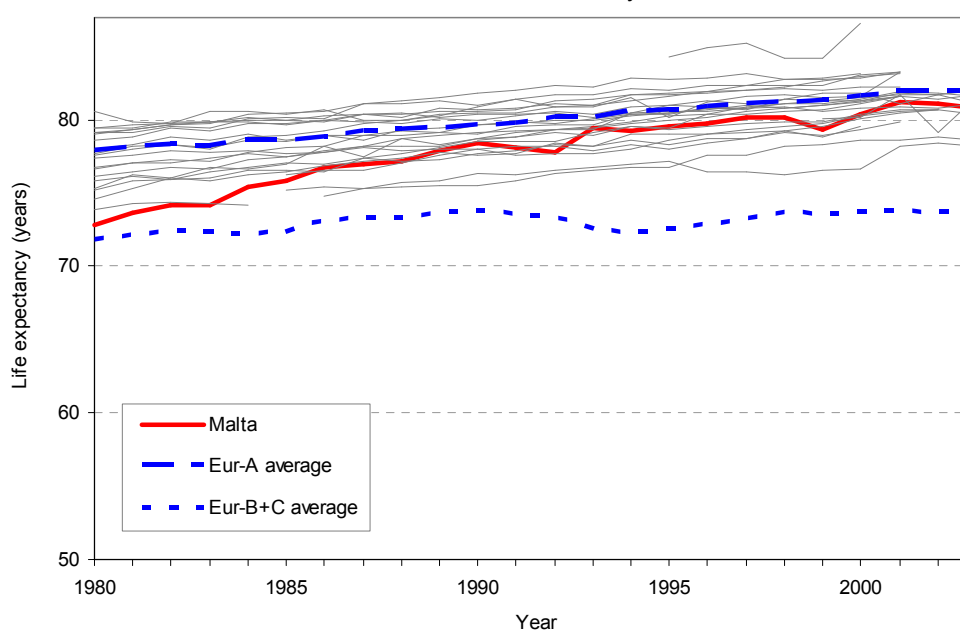
Note: Three-year averages have partly been used for Maltese age and cause-specific mortality rates to diminish random variation.

According to WHO (2003c) estimates, a person born in Malta in 2002 can expect to live 78.1 years on average: 80.3 years if female and 75.9 years if male. LE in Malta is around half a year higher than the Eur-A average for males, but more than half a year lower for females.

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

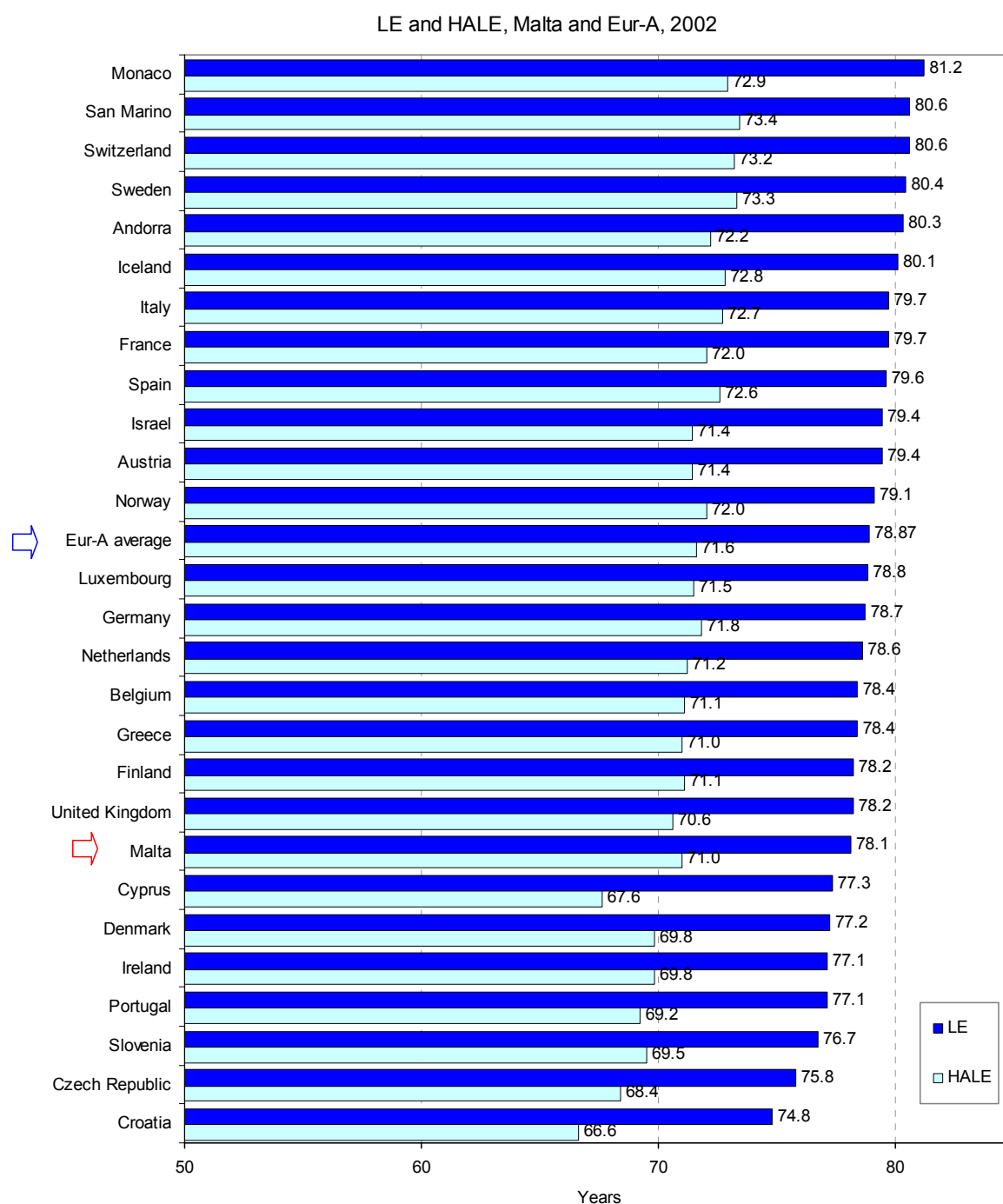


Life expectancy at birth for females, Malta, Eur-A and Eur-B+C averages, 1980 to latest available year



Since 1980, the Maltese have gained about 8.3 years LE, with a greater gain for men (8.5 years) than women (7.9 years). These gains are up to four years higher than those in the Eur-A countries in general.

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 Malta, WHO (2003c) estimates that people can expect to be healthy for about 91% of their lives. They lose an average of 7.1 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).



Since women live longer and since the possibility of deteriorating health increases with age, women lose more healthy years of life (8.0 years) than men (6.2 years). Nevertheless, the longer LE for women in Malta gives them more than two and a half extra years HALE. For people 60 years old, the gender

difference is even higher: females (18.2 years) have almost three years more HALE than males (15.4 years), according to 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 burden of disease among males and females in Malta. 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.

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

Rank	Males		Females	
	Disability groups	Total DALYs (%)	Disability groups	Total DALYs (%)
1	Neuropsychiatric conditions	21.5	Neuropsychiatric conditions	25.8
2	Cardiovascular diseases	21.5	Cardiovascular diseases	17.6
3	Malignant neoplasms	15.7	Malignant neoplasms	14.6
4	Respiratory diseases	7.6	Respiratory diseases	6.9
5	Unintentional injuries	5.5	Musculoskeletal diseases	5.2
6	Sense organ diseases	4.5	Sense organ diseases	5.0
7	Diabetes mellitus	3.8	Diabetes mellitus	4.7
8	Digestive diseases	3.5	Digestive diseases	3.3
9	Musculoskeletal diseases	3.5	Unintentional injuries	3.2
10	Intentional injuries	2.4	Perinatal conditions	2.0

Source: Background data from WHO (2003c).

Main risk factors

The following table has the top 10 risk factors with their relative contributions, in descending order, to burden of disease in the male and female populations of Malta. According to DALYs, tobacco use and high blood pressure cause the greatest burden of disease on the male population while high blood pressure and high BMI do so for females.

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

Rank	Males		Females	
	Risk factors	Total DALYs (%)	Risk factors	Total DALYs (%)
1	Tobacco	16.9	High blood pressure	10.2
2	High blood pressure	11.7	High BMI	10.2
3	High cholesterol	10.3	High cholesterol	8.4
4	High BMI	9.4	Physical inactivity	3.9
5	Alcohol	5.8	Tobacco	2.3
6	Physical inactivity	4.3	Low fruit and vegetable intake	1.9
7	Low fruit and vegetable intake	3.1	Unsafe sex	1.7
8	Illicit drugs	1.1	Iron deficiency	1.0
9	Occupational airbourne particulates	0.9	Illicit drugs	0.7
10	Occupational noise	0.5	Childhood sexual abuse	0.6

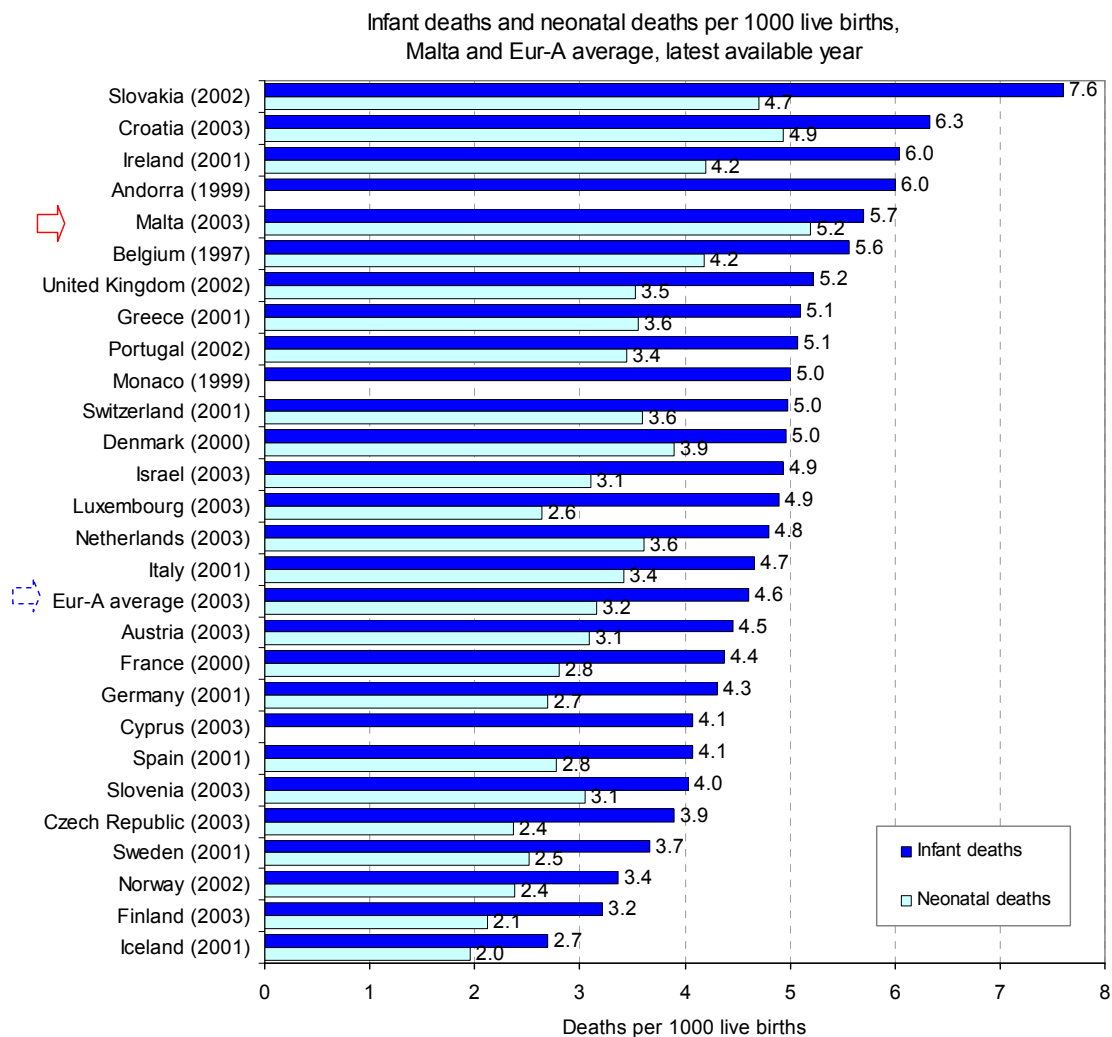
Source: Background data from WHO (2003c).

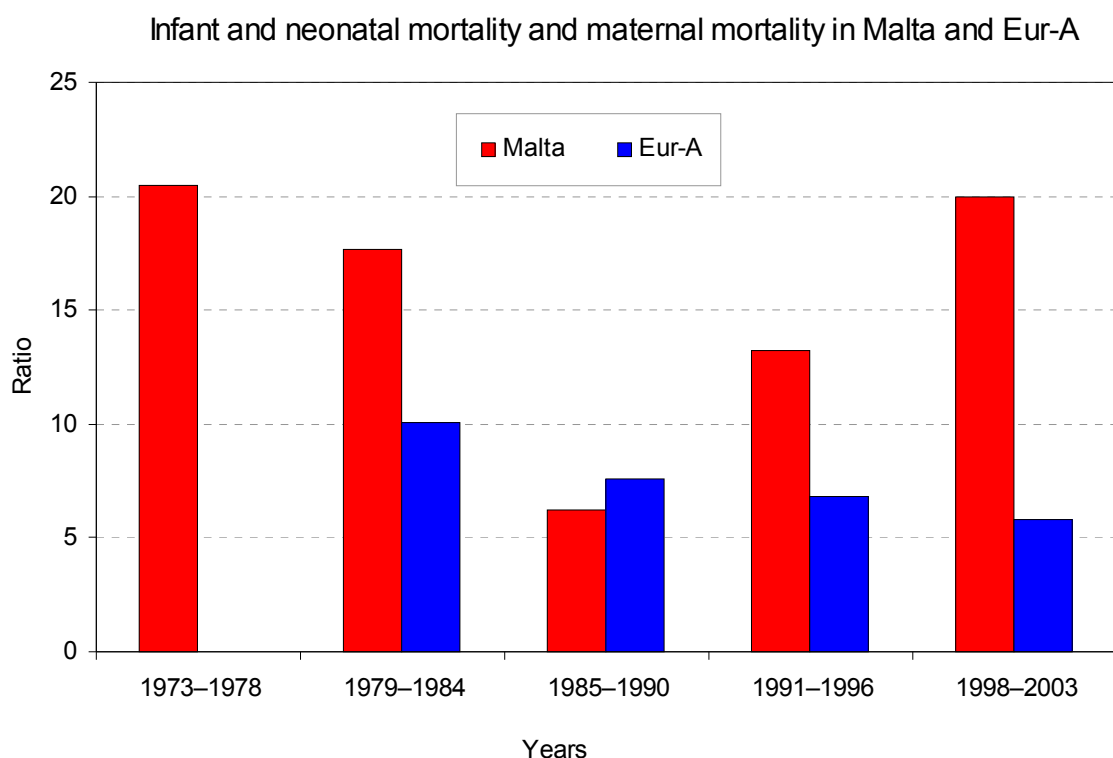
Mortality

Infant, neonatal and child mortality

Both infant and neonatal mortality in Malta have declined substantially since 1970s, and the current rates are at the Eur-A average.

National data and WHO estimates for 2003 show that for every 1000 live births in Malta, there was a probability that between 6 and 7 children would die before reaching age five. The Eur-A average rate for 2002, based on nationally reported data, was between 5 and 6 deaths of under-fives per 1000 live births.





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, 2005).

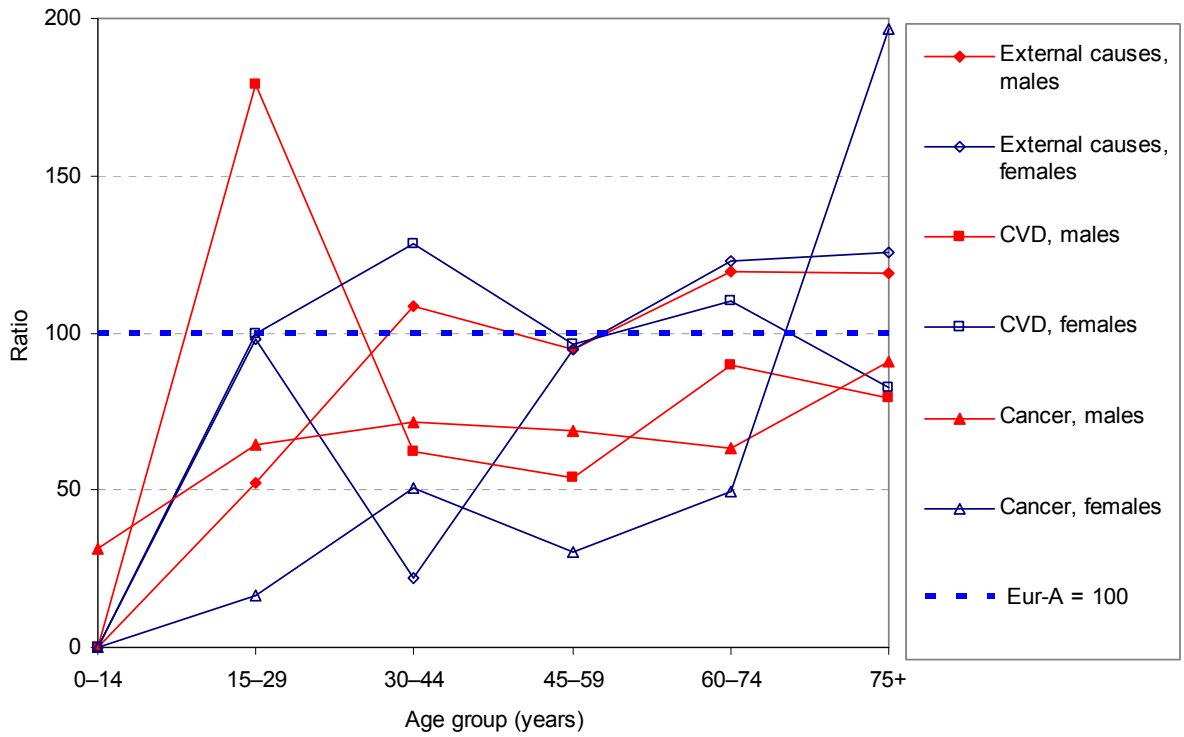
However, in some countries, MMR were higher in 2002 than they had been in 1990. Applying the 75% reduction to the 1990 baseline in these countries creates in some cases a 2015 MDG target that requires dramatic reductions in MMR before 2015. In these cases, more important than reaching MMR targets is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

The maternal mortality rate has increased since the late 1980s, and between 1998 and 2003 the Maltese rate (20 per 100 000 live births) equalled the level of the mid-1970s and was more than three times the Eur-A average (6/100 000). This development was partly caused by the small Maltese population and changes in (under)reporting. Between 1998 and 2003, no maternal deaths due to induced or spontaneous abortion (including ectopic pregnancies) were reported.

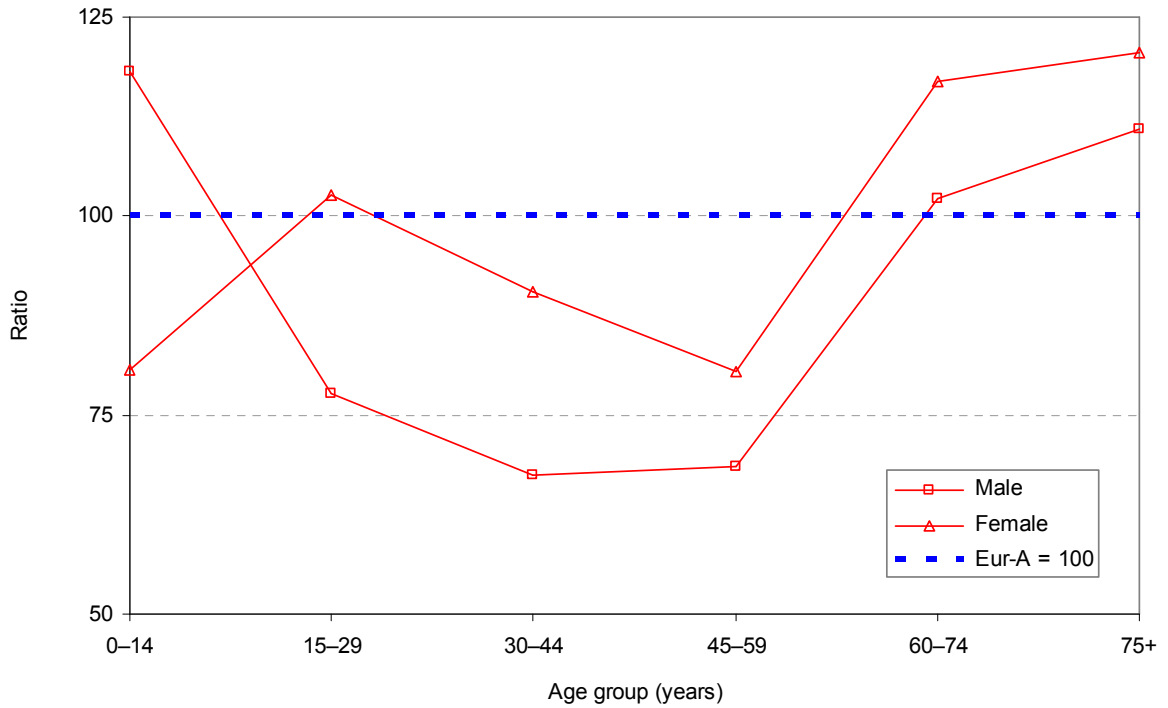
Excess mortality

In general, mortality rate for males in Malta are similar to the Eur-A average, but the women's rate is about one tenth higher than the average. An excess mortality of more than 10% is observed among males 0–14 years old and 75 years and older. Women over 60 years also have higher mortality than the Eur-A average. Excess mortality is at its lowest for males aged 30–59 years old and females aged 15–44 years.

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



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



Main causes of death

In 2003, selected main non-communicable diseases accounted for about 84% of all deaths in Malta, external causes for about 5% and communicable diseases for less than 1%. In total 42% of all deaths were caused by diseases of the circulatory system and 23% by cancer (Annex. Selected mortality, Annex. Mortality data).

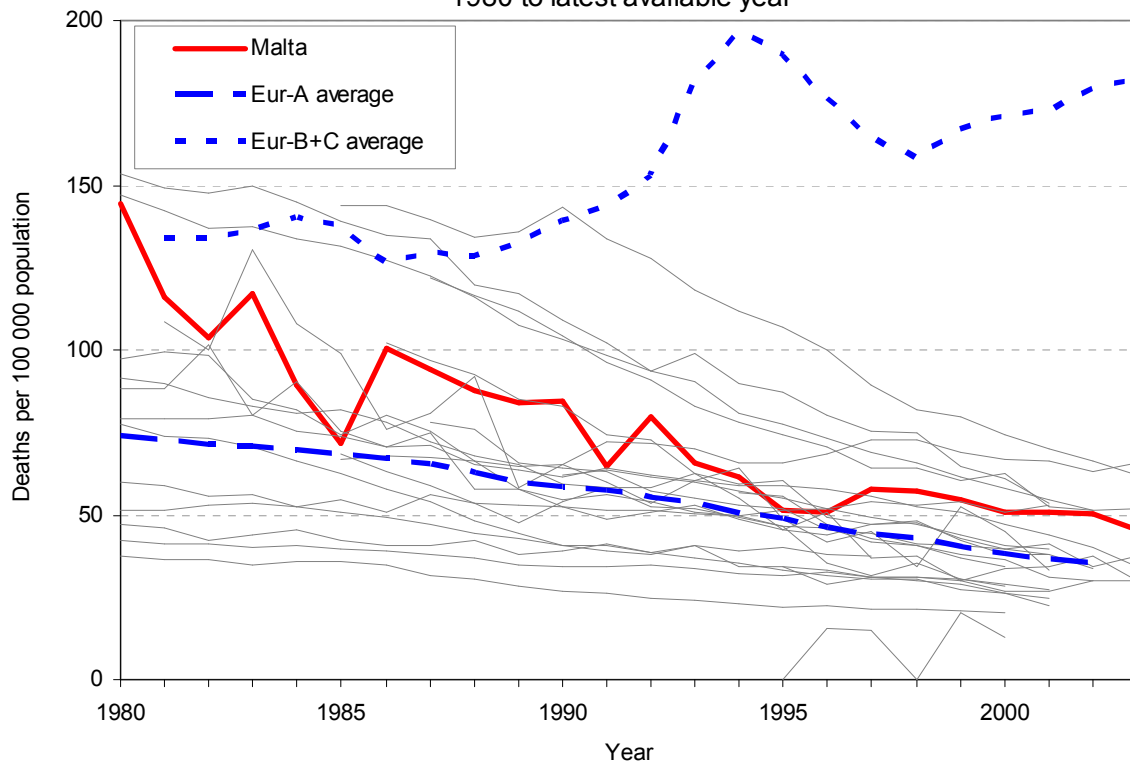
Maltese adults under 45 years old are at lesser risk of dying from CVDs than the Eur-A average. After the age of 60 both males and females have an increased CVD mortality risk. The risk of cancer death has decreased for most age groups. Maltese women aged 75 years and older have a higher risk of dying from external causes and poisoning than the Eur-A population in general. In the younger age groups, on the other hand, the risk is between 25% and 50% lower than the Eur-A average. Similarly, men aged 75 years also have lower death risks.

CVD

Mortality from CVD has decreased both in Malta and in the Eur-A region since 1980, in particular among those under 45 years old, and the current rates are lower than the Eur-A average. In 45–59 years age group, however, the decline has stagnated since the mid-1990s, and the current rates are at the Eur-A average for males and above it for females. For those over 60 years, the death rate is declining, but the Maltese have a higher rate than Eur-A populations in general.

Ischaemic heart disease is the single biggest killer in Malta, causing 22% of all deaths in 2003. Maltese men and women over 30 have a higher risk of dying from it than the Eur-A average, and even though the Maltese rates are decreasing, this unfavourable excess mortality remains. Deaths from cerebrovascular diseases are also declining. Malta has a lower death rate than the Eur-A average among people under 60 years old, but a higher rate among the elderly population.

Standardized death rates (SDR) for ischaemic heart disease in people aged 25–64 years, Malta, Eur-A and Eur-B+C averages, 1980 to latest available year



Cancer

Over one in five deaths is caused by cancer in Malta. In general, the Maltese rates are falling and below the Eur-A average. The exceptions are people aged 15–29 years and females aged 60–74 years, where for both groups increasing trends have already passed the declining Eur-A averages.

The risks of dying from cancers of the lip, oesophagus, stomach, colon/rectum, bladder, lymphoid and haematopoietic tissue and prostate are decreasing in Malta, and the current rates are similar to or lower than the Eur-A averages. Mortality rates for liver and skin cancers are also below the Eur-A average but increasing.

The death rates for cancers of the pancreas, cervix and ovaries have stagnated or even increased in Malta and the current rates remain higher than the Eur-A average. Death rates for breast cancer and cancer of the uterus are also above the average, though declining and approaching the Eur-A average. Developments in all these cancers have affected death rates among elderly women, especially in the 60–74 years age group.

Developments in mortality from cancers of the larynx, trachea, bronchus and lung are different for men and women. For both sexes, the Maltese rates are below the Eur-A average, while the male rate is decreasing and the female rate increasing in line with previous trends in smoking.

Other causes of death (diseases and medical conditions)

Death rates for mental disorders and diseases of the nervous system are low in Malta compared to the Eur-A average, but have substantially increased in recent years. This can partly be explained by the ageing population. Mortality from Alzheimer's disease and other degenerative diseases of the nervous system has not increased, but on the other hand mortality from diseases of the skin and subcutaneous tissue (especially decubitus ulcer) has increased. These deaths are much more common in Malta than in other countries in the WHO European Region.

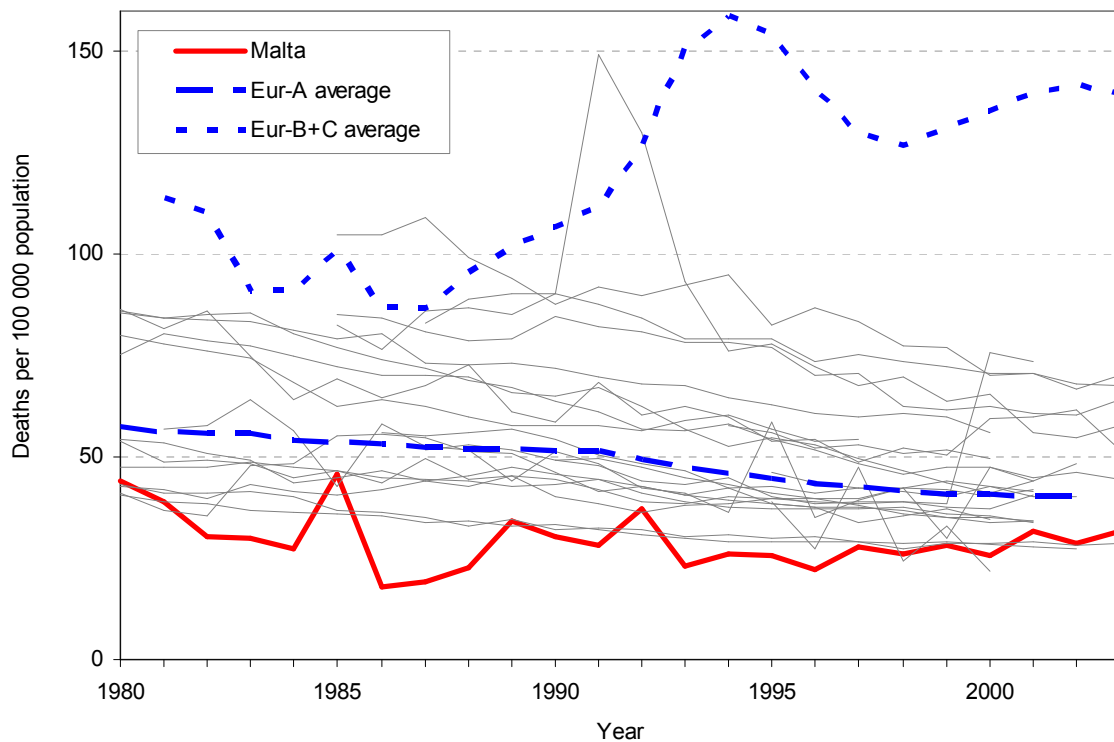
External causes

Mortality due to external causes halved in Malta between the mid-1980s and the mid-1990s, but has increased since then, though remaining below the Eur-A average. The development has been similar for both sexes, even though death rates for males have more than doubled compared to that for females.

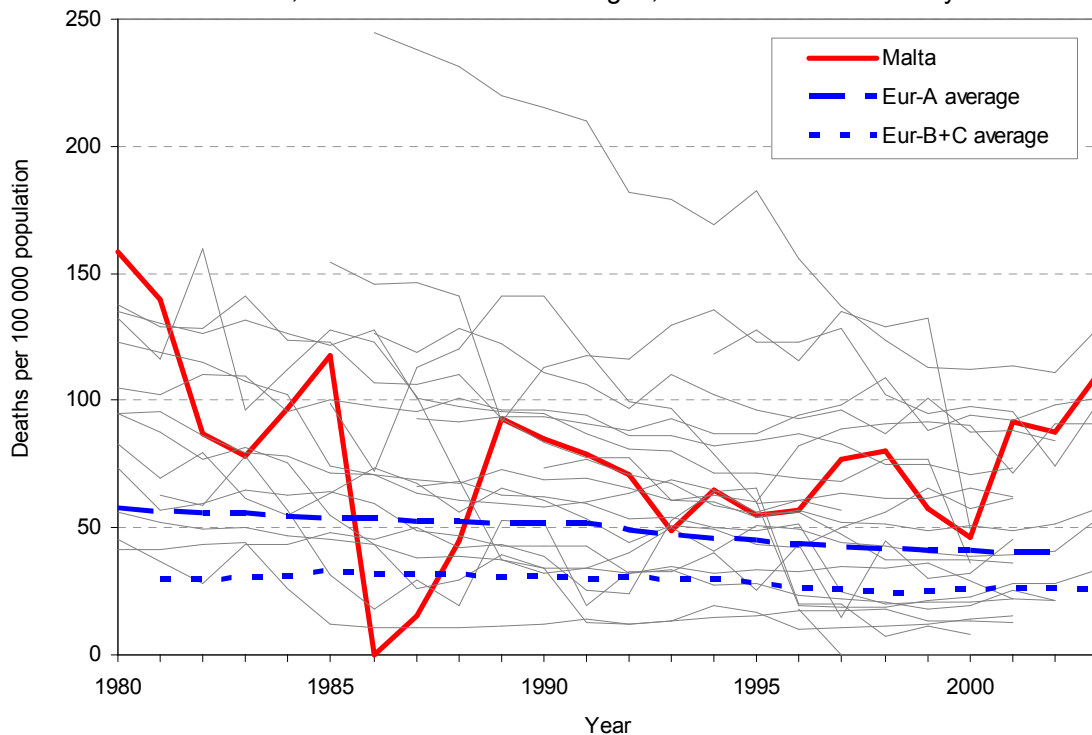
Mortality from motor vehicle and other transport accidents remains well below the Eur-A average. On the other hand, deaths due to accidents in general are increasing and are approaching the Eur-A average. Deaths from accidental falls and accidental poisoning have also become more common in Malta. The increase in deaths from all accidents and accidental falls is most substantial among those over 65 years old. Furthermore, males aged 30–59 years old have a greater risk of dying from accidents than they did in the 1990s. The same is true for males aged 15–44 years and their risk of death from accidental poisoning.

Suicides have become more frequent among both men and women in Malta, but the current rates are still half the Eur-A averages. Cultural factors and differences in cause-of-death coding may, however, hamper the comparison of European suicide statistics.

SDR for external causes of injury and poisoning in people of all ages, Malta, Eur-A and Eur-B+C averages, 1980 to latest available year



SDR for accidental falls in people aged 65+ years, Malta, Eur-A and Eur-B+C averages, 1980 to latest available year



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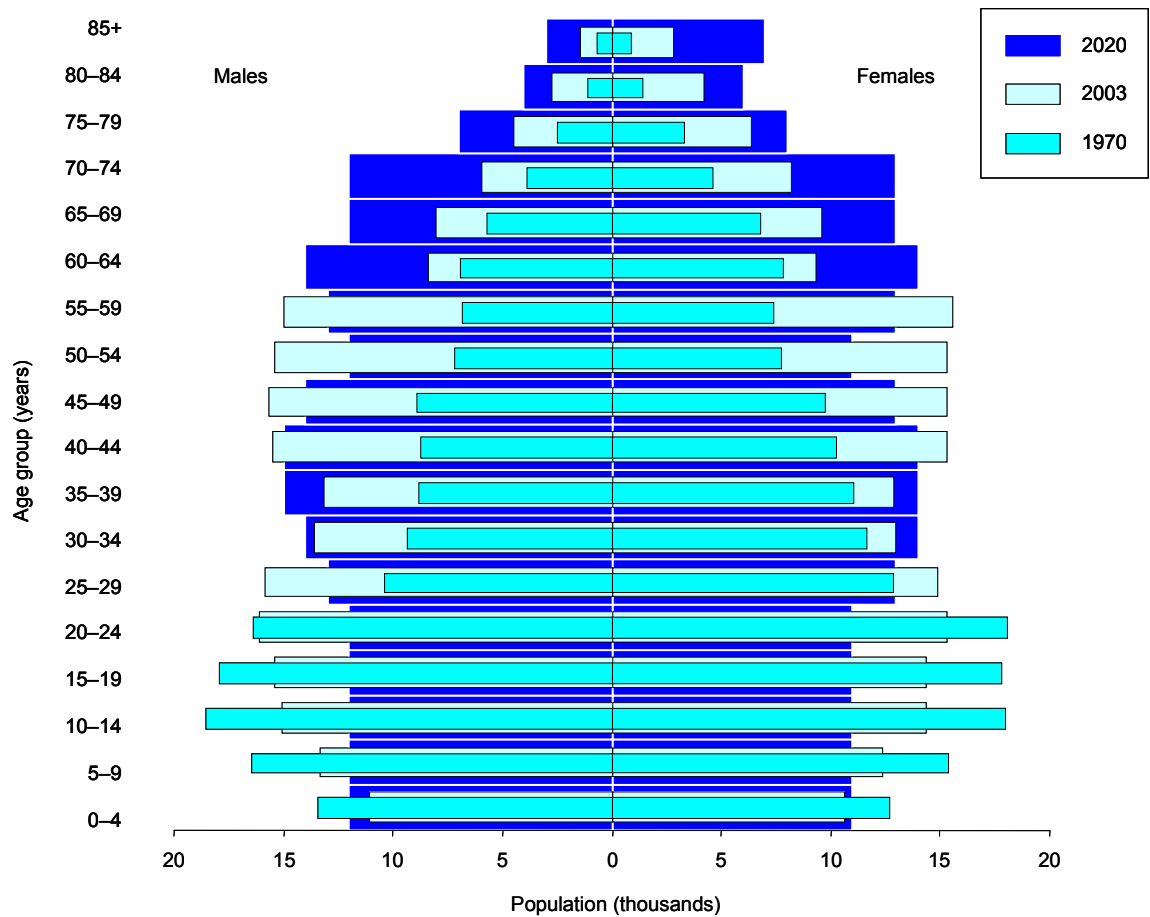
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Annexes

Annex. Age pyramid

Age pyramid for Malta



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

Annex. Selected mortality

Annex. Selected mortality in Malta compared with Eur-A averages

Condition	SDR per 100 000		Excess mortality (Country/A or B+C) in %	% of Total deaths in country	% Total deaths in A or B+C
	Malta (2003)	Eur-A average (2002)			
Selected non-communicable conditions	573.9	533.8	7.5	84.0	82.4
<i>Cardiovascular diseases</i>	289.0	243.4	18.7	42.3	37.6
Ischaemic heart disease	149.8	95.9	56.2	21.9	14.8
Cerebrovascular diseases	69.1	61.1	13.1	10.1	9.4
Diseases of pulmonary circulation and other heart disease	54.3	56.6	-4.1	8.0	8.7
<i>Malignant neoplasms</i>	157.5	181.5	-13.2	23.1	28.0
Trachea/bronchus/lung cancer	28.5	37.1	-23.2	4.2	5.7
Female breast cancer	28.5	27.0	5.6	4.2	4.2
Colon/rectal/anal cancer	20.5	20.7	-1.0	3.0	3.2
Prostate	17.7	25.1	-29.5	2.6	3.9
<i>Respiratory diseases</i>	71.5	47.8	49.6	10.5	7.4
Chronic lower respiratory diseases	20.7	20.2	2.5	3.0	3.1
Pneumonia	20.9	16.2	29.0	3.1	2.5
<i>Digestive diseases</i>	26.9	30.8	-12.7	3.9	4.8
Chronic liver disease and cirrhosis	7.3	12.6	-42.1	1.1	1.9
<i>Neuropsychiatric disorders</i>	28.9	30.3	-4.6	4.2	4.7
Communicable conditions	4.0	8.4	-52.4	0.6	1.3
AIDS/HIV	0.2	1.1	-81.8	0.0	0.2
External causes	31.7	40.3	-21.3	4.6	6.2
<i>Unintentional</i>	27.0	28.7	-5.9	4.0	4.4
Road traffic injuries	3.5	9.9	-64.6	0.5	1.5
Falls	15.3	6.1	150.8	2.2	0.9
<i>Intentional</i>	4.7	11.6	-59.5	0.7	1.8
Self-inflicted (suicide)	4.7	10.6	-55.7	0.7	1.6
Violence (homicide)	0.0	1.0	-100	0.0	0.2
Ill-defined conditions	8.8	20.9	-57.9	1.3	3.2
All causes	683.0	647.8	5.4	100.0	100.0

Annex. Mortality data

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

Causes of death	Sex	Malta (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	50.5	-4.7	49.4	-2.4	151.7	-3.8
	M	65.3	-4.8	55.3	-2.5	170.5	-3.9
	F	35.0	-4.6	43.3	-2.4	131.9	-3.8
<i>Infectious and parasitic diseases</i>	M	3.6	7.6	1.4	-1.1	10.9	-7.0
	F	0.0	-12.5	1.1	-3.0	9.5	-6.6
Intestinal infectious diseases	M	0.0	0.0	0.2	-0.7	5.1	-8.2
	F	0.0	-12.5	0.1	-7.3	4.7	-7.9
<i>Malignant neoplasms</i>	M	0.0	-12.5	3.3	-1.8	5.1	-1.9
	F	0.0	-12.5	2.6	-1.8	4.2	-1.9
<i>Cardiovascular diseases</i>	M	0.0	0.0	1.4	-3.1	3.3	1.1
	F	0.0	0.0	1.3	-2.5	2.6	0.1
<i>Respiratory diseases</i>	M	0.0	0.0	1.4	-4.3	35.9	-5.0
	F	0.0	0.0	1.0	-4.2	30.7	-5.0
Pneumonia	M	0.0	0.0	0.5	-6.0	20.9	-4.9
	F	0.0	0.0	0.4	-5.1	17.9	-4.7
<i>Certain conditions originating in perinatal period</i>	M	442.3	-4.2	255.3	-2.1	607.6	-2.7
	F	104.0	-8.8	202.3	-1.6	427.5	-2.7
Congenital malformations & chromosomal abnormalities	M	23.9	-0.2	11.6	-2.9	24.2	-2.8
	F	21.2	8.5	10.0	-3.3	21.0	-2.6
<i>Ill-defined causes</i>	M	0.0	0.0	5.0	-3.9	5.6	-0.6
	F	0.0	0.0	3.4	-4.2	4.6	-1.0
<i>External causes of injury & poisoning</i>	M	2.2	-9.2	7.0	-4.0	29.0	-3.4
	F	0.0	0.0	4.6	-3.2	18.1	-3.1
Road traffic injuries	M	0.0	0.0	2.5	-4.5	4.7	-2.6
	F	0.0	0.0	1.7	-4.8	3.0	-1.6

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

Causes of death	Sex	Malta (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	47.4	-2.4	56.0	-2.3	161.0	-0.9
	M	63.6	-3.6	82.0	-2.3	241.7	-1.0
	F	30.1	1.8	29.3	-2.2	79.0	-0.6
<i>Infectious and parasitic diseases</i>	M	0.0	0.0	1.2	1.5	12.3	3.0
	F	4.6	11.3	0.8	1.9	5.1	2.5
Malignant neoplasms	M	11.0	-3.2	6.2	-1.0	8.8	-1.9
	F	4.7	-5.1	4.7	-1.4	7.7	-1.9
<i>Cardiovascular diseases</i>	M	2.2	-8.8	4.1	-2.4	17.6	0.0
	F	2.3	-1.6	2.3	-2.0	7.3	-0.9
<i>Respiratory diseases</i>	M	0.0	-12.5	1.4	-3.6	6.9	0.2
	F	0.0	0.0	0.9	-2.7	3.8	-1.1
<i>Digestive diseases</i>	M	0.0	-12.5	0.9	-3.5	8.0	3.0
	F	0.0	-12.5	0.5	-3.8	3.7	3.1
Ill-defined causes	M	0.0	-12.5	4.0	-3.1	11.6	7.1
	F	0.0	0.0	1.4	-1.3	3.3	5.8
<i>External causes</i>	M	37.4	-2.9	58.3	-1.4	162.4	-1.6
	F	2.3	-2.4	14.4	-1.6	36.9	-0.2
Road traffic injuries	M	11.1	-7.3	28.5	-1.3	27.8	-1.5
	F	0.0	0.0	7.3	-1.4	8.0	0.3
Accidental drowning	M	2.3	0.0	1.3	-2.2	10.8	-3.9
	F	0.0	0.0	0.2	-2.1	1.9	-2.2
Accidental poisoning	M	6.6	0.0	2.8	0.0	19.1	3.3
	F	0.0	0.0	0.7	0.8	4.4	2.5
Self-inflicted (suicide)	M	15.3	7.4	12.7	-1.8	36.8	0.0
	F	0.0	-12.5	3.1	-2.2	5.8	-1.3

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

Causes of death	Sex	Malta (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	90.1	1.4	120.3	-2.5	453.8	-0.7
	M	108.9	-0.7	161.6	-2.6	700.0	-0.8
	F	71.1	6.9	78.5	-2.1	215.6	-0.2
<i>Malignant neoplasms</i>	M	17.2	-6.7	27.6	-2.3	40.2	-2.8
	F	40.1	22.1	31.3	-2.0	43.8	-1.4
Trachea/bronchus/lung cancer	M	2.6	-7.7	5.0	-3.4	7.3	-4.2
Female breast cancer	F	2.7		2.8	-0.6	2.2	-1.0
<i>Cardiovascular diseases</i>	F	17.1	76.8	10.0	-2.6	10.0	-2.3
	M	28.3	1.3	26.1	-2.5	158.6	-0.4
Ischaemic heart disease	F	2.3	-0.7	10.4	-2.1	45.3	0.0
	M	11.6	3.0	11.8	-3.1	73.7	-2.2
Cerebrovascular diseases	F	2.3		2.4	-2.7	14.4	-1.3
	M	4.9	0.5	4.4	-3.2	24.6	-0.4
<i>Respiratory diseases</i>	F	0.0	-12.5	3.6	-2.5	10.6	-1.3
	M	7.1		3.9	-3.5	34.3	0.9
<i>Digestive diseases</i>	F	5.4	14.4	2.2	-2.0	9.8	0.8
	M	0.0	-12.5	12.6	-2.4	50.2	1.4
<i>External causes</i>	F	5.3	15.4	5.4	-1.7	19.4	4.1
	M	42.0	8.0	58.8	-1.2	299.5	-1.9
Road traffic injuries	F	7.6	-6.7	15.1	-1.8	58.9	-1.0
	M	10.2	15.2	16.0	-0.5	31.4	-1.7
Self-inflicted (suicide)	F	0.0	-12.5	3.9	-2.0	7.1	-0.5
	M	2.6	1.6	21.2	-1.5	54.9	-2.4
	F	5.4	-3.1	5.8	-2.2	7.9	-2.5

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

Causes of death	Sex	Malta (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	316.4	-2.3	435.6	-1.3	1294.9	-0.6
	M	397.4	-2.5	580.1	-1.4	1981.7	-0.6
	F	236.0	-2.2	293.3	-1.0	698.9	-0.5
<i>Malignant neoplasms</i>	M	117.3	-5.5	218.2	-1.2	323.2	-1.9
	F	149.3	-1.3	155.0	-1.0	186.1	-0.5
Trachea/bronchus/lung cancer	M	22.8	-8.1	65.9	-1.5	101.4	-2.9
Female breast cancer	F	6.8		21.8	3.4	15.4	1.0
<i>Cardiovascular diseases</i>	F	38.6	-5.5	44.0	-2.2	45.3	0.1
	M	147.9	-1.2	156.4	-2.6	793.1	-0.1
Ischaemic heart disease	F	48.3	-2.6	50.9	-2.5	271.7	-0.6
	M	108.0	-1.4	86.2	-3.3	435.3	-0.7
Cerebrovascular diseases	F	33.5	-0.1	17.8	-3.4	111.1	-0.6
	M	11.0	-6.3	23.7	-2.6	168.6	-0.9
<i>Respiratory diseases</i>	F	2.4	-7.7	14.5	-2.1	88.4	-1.4
	M	15.2	-2.8	20.3	-1.7	108.7	-1.4
<i>Digestive diseases</i>	F	2.0	-10.9	10.2	-1.3	24.5	-0.7
	M	28.9	4.9	49.6	-0.8	129.7	0.7
<i>External causes</i>	F	6.8	-2.6	20.3	-0.7	57.3	1.9
	M	43.1	-1.5	62.8	-1.0	409.2	-0.9
Road traffic injuries	F	6.4	-3.1	20.9	-0.9	89.1	-1.1
	M	6.8	-3.4	13.0	-1.3	28.5	-1.8
Self-inflicted (suicide)	F	2.4	-2.9	4.1	-2.1	7.5	-1.4
	M	9.2	-5.9	23.1	-1.1	68.1	-2.4
	F	2.0	-7.9	8.5	-1.2	10.2	-3.4

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

Causes of death	Sex	Malta (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	1669.5	-1.1	1570.9	-1.9	3411.7	-0.1
	M	2203.1	-0.7	2156.9	-2.1	4996.4	0.1
	F	1249.2	-1.6	1069.2	-1.9	2339.0	-0.6
<i>Malignant neoplasms</i>	M	765.6	-1	851.3	-1.4	1002.5	-0.8
	F	485.7	0.0	439.8	-1.1	438.9	-0.7
Trachea/bronchus/lung cancer	M	281.7	2.3	261.8	-1.9	321.7	-1.5
Female breast cancer	F	32.7	13.0	59.0	0.2	37.1	-1.4
<i>Cardiovascular diseases</i>	F	89.2	-4.3	79.7	-1.6	68.7	1.3
	M	889.8	-1.1	744.9	-3.6	2903.0	0.6
Ischaemic heart disease	F	413.3	-4.8	335.7	-3.9	1507.8	-0.3
	M	544.9	-2	381.3	-4.2	1582.2	1.2
<i>Cerebrovascular diseases</i>	F	220.5	-5.2	133.5	-4.6	731.4	0.5
	M	179.4	-1.2	143.3	-3.7	833.7	0.2
<i>Respiratory diseases</i>	F	101.7	-5.4	86.7	-4.1	528.9	-0.8
	M	223.9	2.9	144.0	-3.5	303.0	-2.4
<i>Digestive diseases</i>	F	74.3	9.7	62.5	-2.4	68.6	-3.6
	M	62.8	-3.2	111.6	-1.6	193.0	0.1
<i>External causes</i>	F	87.7	7.9	54.1	-1.7	94.2	0.2
	M	50.3	8.3	79.3	-1.4	320.0	1.0
Road traffic injuries	F	15.9	41.5	32.1	-2.1	88.7	-0.5
	M	0.0	-12.5	14.8	-3.0	24.3	-1.5
Self-inflicted (suicide)	F	0.0		5.9	-3.4	9.5	-1.0
	M	13.0		24.5	-1.6	60.5	-0.8
	F	0.0		8.7	-2.6	12.7	-3.1

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

Causes of death	Sex	Malta (2003)		Eur-A (2002)		Eur-B+C (2003)	
		Rate	Change (%)	Average	Change (%)	Average	Change (%)
All causes	Both	9485.6	-0.8	8059.6	-1.0	12338.8	0.0
	M	10912.6	-0.3	9832.0	-1.1	14838.0	0.1
	F	8577.5	-1.1	7112.5	-0.9	11421.7	0.0
<i>Malignant neoplasms</i>	M	1770.4	-4.1	2231.1	-0.4	1489.3	1.2
	F	936.6	-4.2	1136.2	-0.4	721.7	0.8
Trachea/bronchus/lung cancer	M	419.5	-4.8	457.1	-0.7	323.5	1.0
Female breast cancer	F	55.4	0.4	102.7	1.5	55.6	0.5
<i>Cardiovascular diseases</i>	F	161.8	-7.8	159.6	-0.4	92.0	3.1
	M	5196.1	1.0	4356.2	-2.1	10221.2	0.4
Ischaemic heart disease	F	4494.5	-1.1	3577.9	-1.9	8805.6	0.4
	M	2499.8	-1.2	1708.0	-2.2	4925.6	1.4
<i>Cerebrovascular diseases</i>	F	2091.3	-1.5	1150.0	-2.2	4028.6	1.2
	M	1349.4	3.4	1119.8	-2.5	3004.4	0.7
<i>Respiratory diseases</i>	F	1224.0	-2.4	1026.9	-2.4	2967.6	0.5
	M	1794.3	0.3	1156.5	-2.4	824.1	-2.1
<i>Digestive diseases</i>	F	996.5	3.1	591.9	-2.1	302.3	-3.2
	M	414.6	3.0	340.3	-1.1	270.4	0.3
<i>External causes</i>	F	297.9	-2.6	279.8	-0.4	175.0	1.1
	M	250.4	3.0	275.0	-0.6	604.2	0.1
Road traffic injuries	F	369.5	14.7	187.8	-1.2	172.4	-1.2
	M	9.7	-10.7	28.1	-2.2	34.6	-3.1
Self-inflicted (suicide)	F	6.2		10.0	-3.1	14.7	-1.7
	M	27.6		49.5	-1.6	86.6	-1.1
	F	0.0		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, 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 end 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 owing to premature mortality. One DALY can be thought of as one lost year of healthy life.
GINI index	The 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).