



# Highlights on health in France 2004

*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 options

### Life expectancy

French women can expect to live one of the longest lives in Eur-A (almost 84 years), whereas men are at the Eur-A average (76 years). Slightly fewer babies die in their first year of life than in Eur-A. Excess mortality overall is concentrated at young ages, whereas older people generally have lower mortality compared with Eur-A averages. By 2030, one in every four people in France will be 65 years or older. However, the birth rate is increasing significantly, while the Eur-A birth rate remains stable.

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, 2004a)

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

### Main causes of death

People in France die less often from major noncommunicable diseases than in Eur-A. In particular, they traditionally experience the lowest mortality for cardiovascular diseases (CVD) in Eur-A, although it is still responsible for 27% of deaths. Cancer is therefore the largest single cause of death (almost one of three); although rates are comparable to the Eur-A average and the incidence is lower in France. It accounts for 10–15% of the total burden of disease. Men 30–59 years old have one of the highest mortality rates from lung cancer, and this is increasing rapidly among women 30–59 years (and has now surpassed the Eur-A average among those 30–44 years). The estimated incidence of lung cancer among women is 60% higher than in Eur-A.

Preventive care, delivered through a country's primary care system, can improve 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, 2004e)

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

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

### Mental health and suicide

Although death from injuries in France has become less frequent than in earlier decades, it is still 40% higher than the Eur-A average and comprises a greater burden of disease than CVD for men. One third of fatal injuries are due to suicide, a choice that both French men and women make 60% more often than their Eur-A counterparts, even at the extreme ages of life. Men take their own life three times more often than women.

Better recognition and monitoring of depressive disorders can lead to positive effects, including reduced suicide rates. Comprehensive treatment programmes directed at the addictive and depressive features in alcohol abuse have been shown to be effective.

Similar to the rest of the Eur-A countries, neuropsychiatric conditions represent the greatest burden of all diseases on the French population (as much as a third of the total burden for French women) due to the associated disability in daily living. Mortality from neuropsychiatric disorders has increased by half since 1995 and is now 40% higher than the Eur-A average. After retirement age, Alzheimer's disease and other degenerative diseases account for one third of this mortality. French men and women die 60% more often from Alzheimer's disease than their Eur-A counterparts, with a sharp rise of 70% between 1997 and

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2000. This is due to a combination of factors, such as higher longevity, lower mortality from the usual killers such as CVD and cancer as well as improved coding practices for these disorders.

The impact of Alzheimer's disease and other degenerative diseases on mental health is important. The scope for preventing diseases leading to dementia in old age is limited. Curative care only exists for some rare conditions. The course of Alzheimer's disease can be slowed down and the behavioural symptoms controlled with new medication and with attention to depression, which often occurs concurrently. Policies that improve the quality of life for old people with dementia and provide support to their caregivers have been developed in many countries.

*Mental health in Europe: country reports from the WHO European network on mental health* (WHO Regional Office for Europe, 2001a)

*Mental health policy and practice across Europe: the future direction of mental health care: proposal for analytical study* (Knapp et al., 2004)

*Project Atlas: mapping mental health resources in the world* (WHO, 2003b)

*The world health report 2001: mental health: new understanding, new hope* (WHO, 2001b)

### **Motor vehicle traffic injuries**

Motor vehicle traffic kills 12 people per 100 000 population in France, 20% more than in Eur-A. Stronger public policies have contributed to reduce the number of fatal injuries on the roads by 21% between 2002 and 2003, but young people 15–29 years old still lose their lives prematurely, with men, motorcyclists and moped riders at the highest risk.

Injuries, and motor vehicle traffic injuries in particular, have historically been neglected because they were seen as random events. Injuries are now known to be preventable. Seat-belts, child car seats, motorcycle helmets, designated drivers (ensuring that the driver remains sober), traffic calming and other measures have proven to be effective.

*A 5-year WHO strategy for road traffic injury prevention* (WHO, 2001a)

*French road safety policy* (Observatoire national interministériel de sécurité routière, 2004a)

*Preventing road traffic injury: a public health perspective for Europe* (Racioppi et al., 2004)

*World report on road traffic injury prevention* (Peden et al., 2004)

### **Tobacco**

People in France smoke 19% fewer cigarettes than their Eur-A counterparts. The prevalence of smoking remains stable among adults and youths, but boys have a higher prevalence than the Eur-A average.

To reduce consumption across the whole population, policy-makers need permanently to raise prices for tobacco through taxes, and this is the case in France. Cessation policies need to target vulnerable groups. Increasing adults' cessation of tobacco use is cost-effective for public health in the short and medium terms.

*European Strategy for Tobacco Control* (WHO Regional Office for Europe, 2002b)

Tobacco control database [online database] (WHO Regional Office for Europe, 2004f)

*Which are the most effective and cost-effective interventions for tobacco control?* (Health Evidence Network, 2003b)

*WHO European strategy for smoking cessation policy* (WHO Regional Office for Europe, 2003)

*WHO Framework Convention on Tobacco Control* (WHO, 2003c)

### **Alcohol**

Alcohol consumption is decreasing in France but remains among the highest in Eur-A. The mortality related to it has decreased faster in France than in Eur-A but is still one third higher than average. Liver cirrhosis has diminished to the Eur-A average.

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Alcohol consumption varies among countries and between population groups within countries. The variation in drinking patterns affects the rates of alcohol-related problems and has implications for the choice of alcohol control policies. Measures that are generally effective in reducing alcohol consumption and the associated harm include pricing and taxation and restricting the availability of alcohol, opening hours for sales outlets and the legal drinking age. Most drink-driving countermeasures have been effective as well. International trade agreements and common markets have weakened the ability of national-level decision-makers to establish national alcohol policies. Most notable are the converging trends in alcohol taxation in several countries in the European Union.

Alcohol control database [online database] (WHO Regional Office for Europe, 2004a)

*Alcohol: no ordinary commodity. Research and public policy* (Babor et al., 2003)

*What are the most effective and cost-effective interventions in alcohol control?* (Health Evidence Network, 2004b)

## Excess weight and physical inactivity

Excess weight may not be as common in France as in Eur-A, but overweight still affects 25% of adults and 10% of adolescents, and 8% of adults and 2% of adolescents are obese. Variation exists across school curricula and socioeconomic groups. People in France consume substantial fruits and vegetables, but at least one third of the population has insufficient physical activity.

Better eating habits can prevent premature death from CVD, but people's chances of a healthy diet depend on what food is available and whether it is affordable. Food and nutrition policies need to cross sectors and be coordinated, so that non-health sectors give priority to public health. This also applies to the promotion of physical activity: policies to encourage active living over the life course need to be integrated across health and non-health sectors.

*CINDI dietary guide* (WHO Regional Office for Europe, 2000)

*Diet, nutrition and the prevention of chronic diseases* (WHO, 2003a)

*Food and health in Europe: a new basis for action* (Robertson et al., 2004)

*The potential contribution of increased vegetable and fruit consumption to health gain in the European Union* (Joffe & Robertson, 2001)

## HIV/AIDS and hepatitis C

AIDS kills 20% more people in France than on average in Eur-A, especially adults 45–74 years old. Drug use and heterosexual contacts with people from endemic countries are the major contributing factors in recent years. About half a million people are infected with hepatitis C in France, but the prevalence among high-risk groups such as injecting drug users is higher than in the general population: about 60%.

Prevention, treatment and care programmes need to reach all people affected by HIV/AIDS, particularly those whose language, culture or immigrant status might limit their access to health services.

*Access to care: privilege or right? Migration and HIV vulnerability in Europe* (Broring et al., 2003)

*AIDS: epidemic update December 2003* (UNAIDS & WHO, 2003)

*The HIV/AIDS epidemic in Europe and central Asia* (WHO Regional Office for Europe, 2004d)

The key to effective prevention of hepatitis C is to reduce the number of people who start to inject drugs – a common vector for HIV – and to encourage harm reduction among young and new injectors. A high proportion of those with the most serious drug use and addiction problems are found in prisons. Coordination of efforts within and between countries is a vital component of effective drug policy in the WHO European Region.

*Annual report 2003: the state of the drugs problem in the European Union and Norway* (EMCDDA, 2003)

*Declaration. Prison health as part of public health, Moscow, 24 October 2003* (HIPP, 2003)

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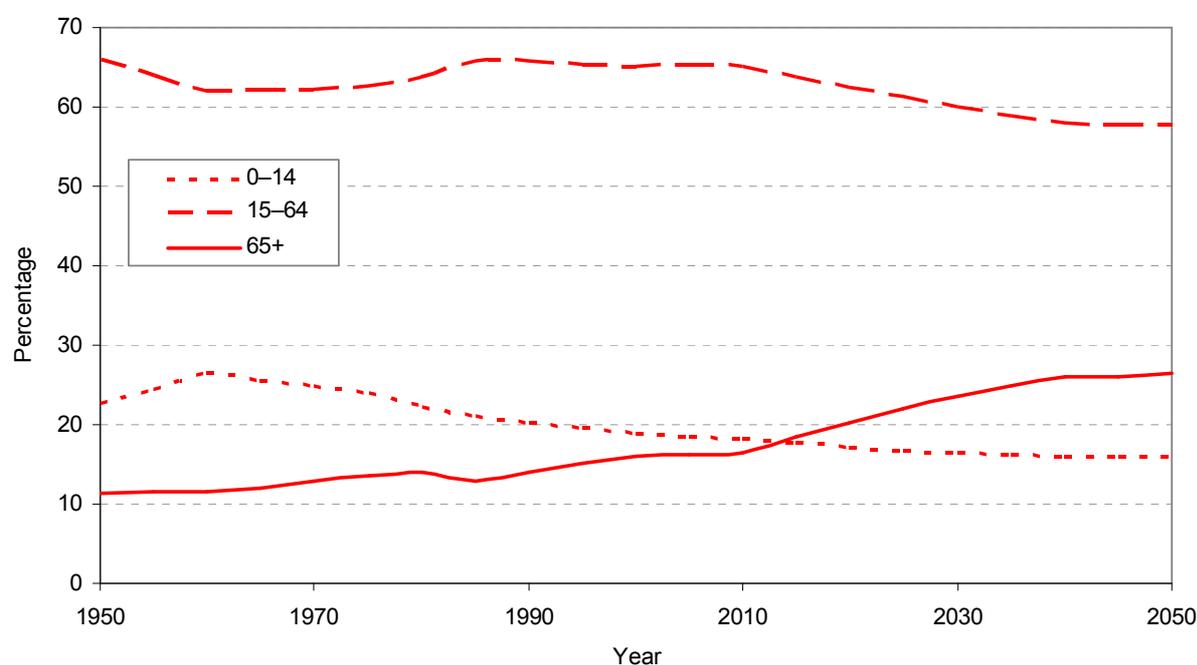
## Selected demographic information

### Population profile

France had a population of almost 60 million at the start of 2003. Three quarters live in an urban surrounding, slightly less than the average for the Eur-A countries.

The most striking demographic feature for France, observed across the majority of Eur-A countries, is the increasing proportion of elderly people in the population. As the large birth cohorts of the late 1940s approach retirement age, the number of people in France aged 65 years and older is expected to grow from about 16% of the population in 2003 (Council of Europe, 2003) to an estimated 24% in 2030 (Annex. Age pyramid).

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



Source: United Nations (2002).

Whereas the Eur-A average has remained stable, France's birth rate, traditionally higher already, has been increasing since 1992 and was 25% higher than the Eur-A average in 2000. As a consequence, France's positive rate of natural increase and, to a lesser extent, of net migration has caused its population to grow.

Selected demographic indicators in France and Eur-A,  
2000 or latest available year

Indicators	France	Eur-A		
	Value	Average	Minimum	Maximum
Population (in 1000s) <sup>a</sup>	59 630.1	–	–	–
0–14 years (%)	18.8	–	–	–
15–64 years (%)	65.1	–	–	–
65+ years (%)	16.1	–	–	–
Urban population (%) <sup>b, c</sup>	75.5	79.5	49.2	100.0
Live births (per 1000) <sup>d, e</sup>	12.8	11.3	8.7	21.2
Natural population growth (per 1000)	4.2	1.1	–2.4	15.5
Net migration (per 1000) <sup>d, e</sup>	1.1	3.5	–9.6	17.3

<sup>a</sup> As of 1 January 2003.

<sup>b</sup> 2001.

<sup>c</sup> Including Andorra and Monaco.

<sup>d</sup> 2002.

<sup>e</sup> Including Andorra.

*Sources*: Council of Europe (2003), WHO Regional Office for Europe (2004c); Central Bureau of Statistics of Israel (2003) for data on Israel.

## Vulnerable populations

### Income

The evidence on determinants of health shows that people who are socioeconomically disadvantaged bear the greatest burden of disease. Among determinants, income is related to an accumulation of factors that affect mortality (Martikainen et al., 2001). For example, it influences and is influenced by education and employment.

Even in the richest Member States in the WHO European Region, wealth is not equitably distributed and pockets of relative poverty exist (WHO Regional Office for Europe, 2002a; WHO, 2002). The association between poverty and urban areas is especially important in Europe. As populations migrate and become more urban, there are increases in the number of urban poor whose housing, employment conditions and diet expose them to greater risk of illness and disease (WHO Regional Office for Europe, 2001b). The nature and impact of poverty can be unevenly distributed among poor people according to such factors as gender and age group (Ziglio et al., 2003).

Although the GINI index for France of 32.7 is slightly higher than the Eur-A average of 30.8, France has an intermediate level of income inequality (UNDP, 2004). In 2004, 8% of the population lived below the 50% median income level, comparable to the Eur-A average.

In France, 8.9% of the population were unemployed in 2002 versus 6.5% in Eur-A (UNSD, 2004). Among those 15–24 years old, the unemployment rate was dramatically higher: 22% among young men and 16% among young women in 2001 (UNECE, 2003). Thirty-five percent of those unemployed had been so for 12 months or more.

### Social exclusion

Social exclusion has a broad impact on health. It refers to the relative position of an individual or a group in society as a whole. The processes that accompany and result in social exclusion – such as discrimination, stigmatization and hostility – prevent people from getting education or training and from gaining access to services and citizenship activities, making them more vulnerable to health risks and disease.

Examples of people outside the mainstream include members of ethnic or religious minorities; people who live in geographically disadvantaged areas, are unemployed or are elderly; and in some countries, indigenous peoples. People new to a country – such as refugees, immigrants or migrant

workers – may also be socially excluded. The table gives the total population figures for various vulnerable groups of people resident in France. Immigrants include nationals and foreigners from within and outside the European Region. Countries have different data sources and administrative definitions of immigrant status.

#### Vulnerable populations in France

Population	1992	1995	1998	2001	2004 (estimate)
Immigrants	–	–	100 014	–	
Refugees	–	–		132 000	
Prison inmates (per 100 000 national population)	84	89	86	78	95

Sources: EUROSTAT (2004), UNDP (2003) and International Centre for Prison Studies (2004).

The table also includes data about prison inmates, a particularly vulnerable population in that they are typically from minority groups and have lower socioeconomic status and less education than the general population. Incarceration can expose them to direct health hazards, particularly if prison populations outpace capacity. The resulting overcrowding causes and contributes to many health problems, most notably mental health conditions and communicable diseases. In fact, drugs and drug-related infectious diseases in prisons are causing major problems in all countries in the European Region, with the risks of transmission affecting not only inmates but also prison employees and contacts outside the institutions (EMCDDA, 2002).

In March 2004, France reported a 125% occupancy level for its prisons, based on official capacity (International Centre for Prison Studies, 2004).

## Burden of disease

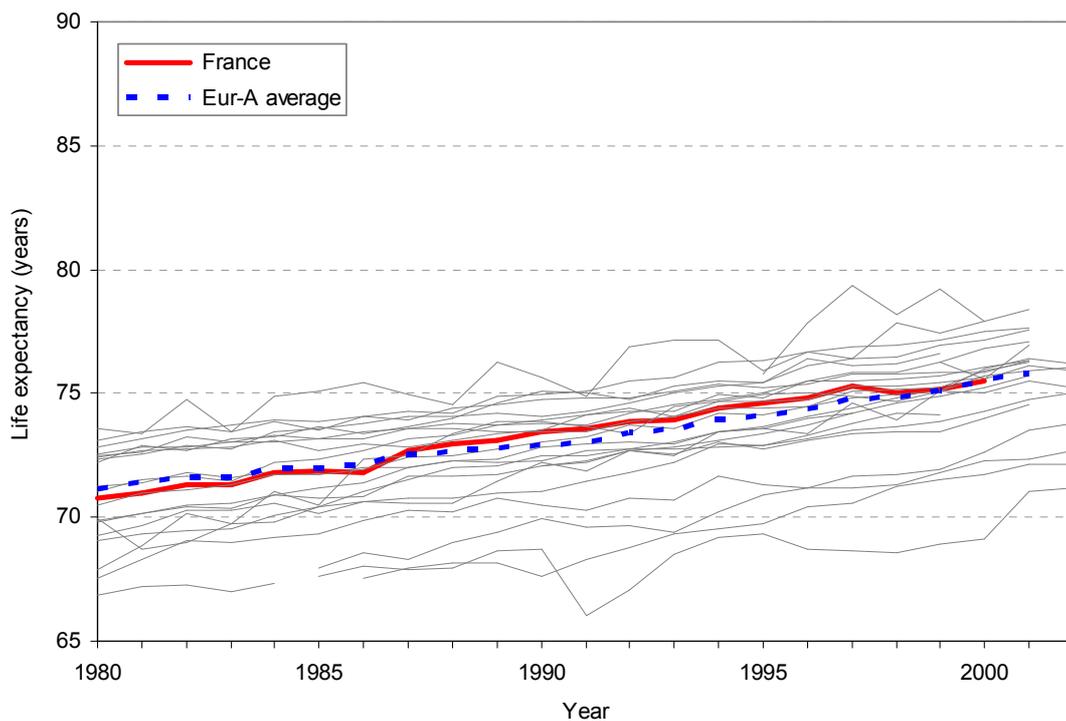
The burden of disease can be viewed as the gap between current health status and an ideal situation in which everyone lives into old age free of disease and disability. Causing the gap are premature mortality, disability and certain risk factors that contribute to illness. The analysis that follows elaborates on the burden of disease in the population.

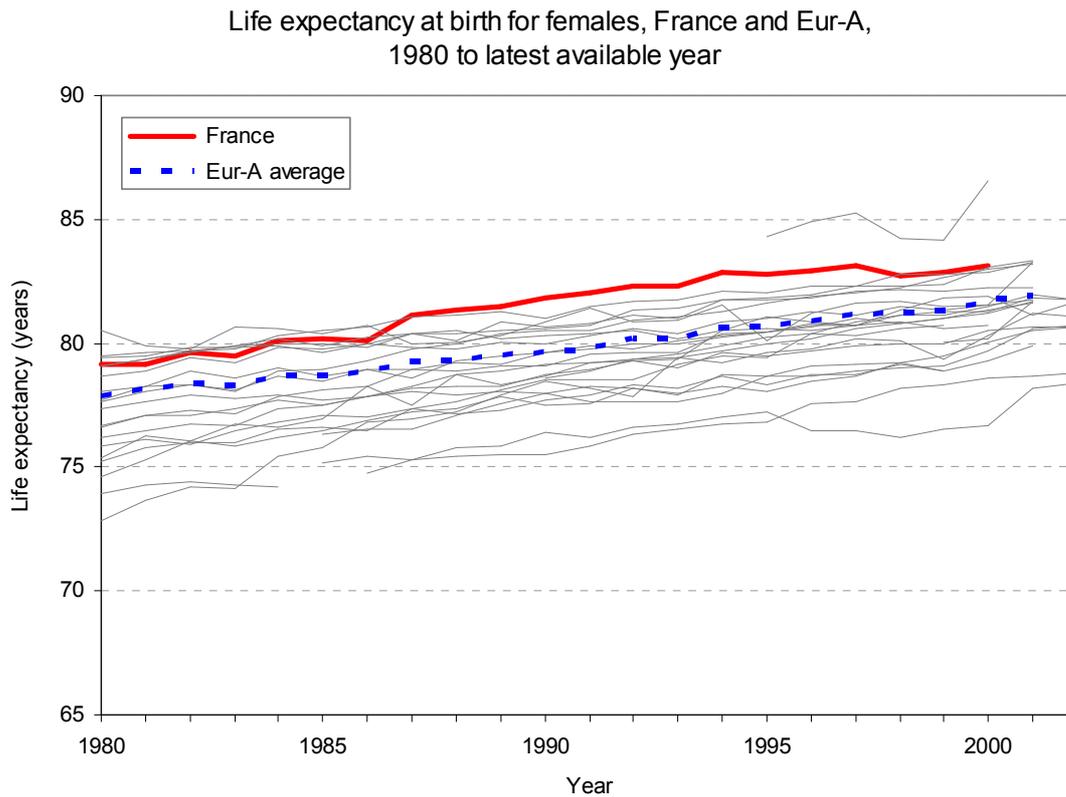
### Life expectancy and healthy life expectancy

A French person born in 2002 can expect to live almost 80 years on average, which is about one more year than the Eur-A average and one of the highest levels of life expectancy (LE) in this group of countries, according to WHO (2003d) estimates. French women, together with their Spanish counterparts, have the second longest lives in Eur-A after San Marino (83.5 years, 1.5 years more than the Eur-A average), whereas men live until 76 years, similar to Eur-A men.

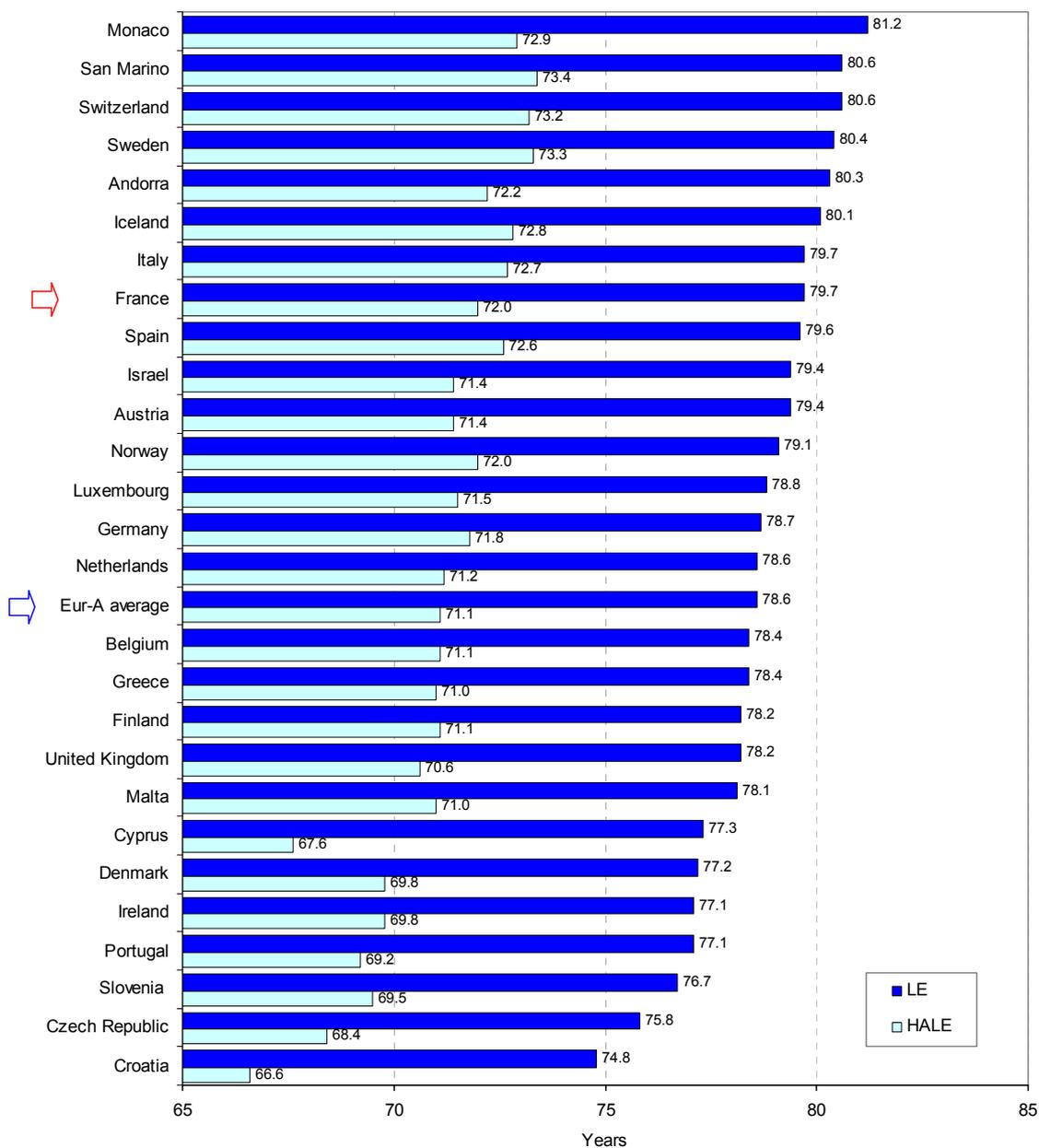
Over the past 20 years, according to estimates reported by France, the French have gained about 4 years in LE, with men showing a greater gain than women: 4.4 years and 3.7 years, respectively. This represents a 6% increase in men's LE, similar to the Eur-A average.

Life expectancy at birth for males, France and Eur-A,  
1980 to latest available year





In addition, WHO (2003d) estimates that, on average, people in France can expect to be healthy for about 90% of their lives. On average, they lose 7.7 years to illness – the difference between LE and healthy life expectancy (HALE). Because women live longer than men and since the possibility of deteriorating health increases with age, women lose more healthy years of life (8.8 years) than men (6.6 years). Nevertheless, a longer LE for women gives them about five more years of healthy life than men in France.

LE and HALE, France and Eur-A<sup>a</sup>, 2002

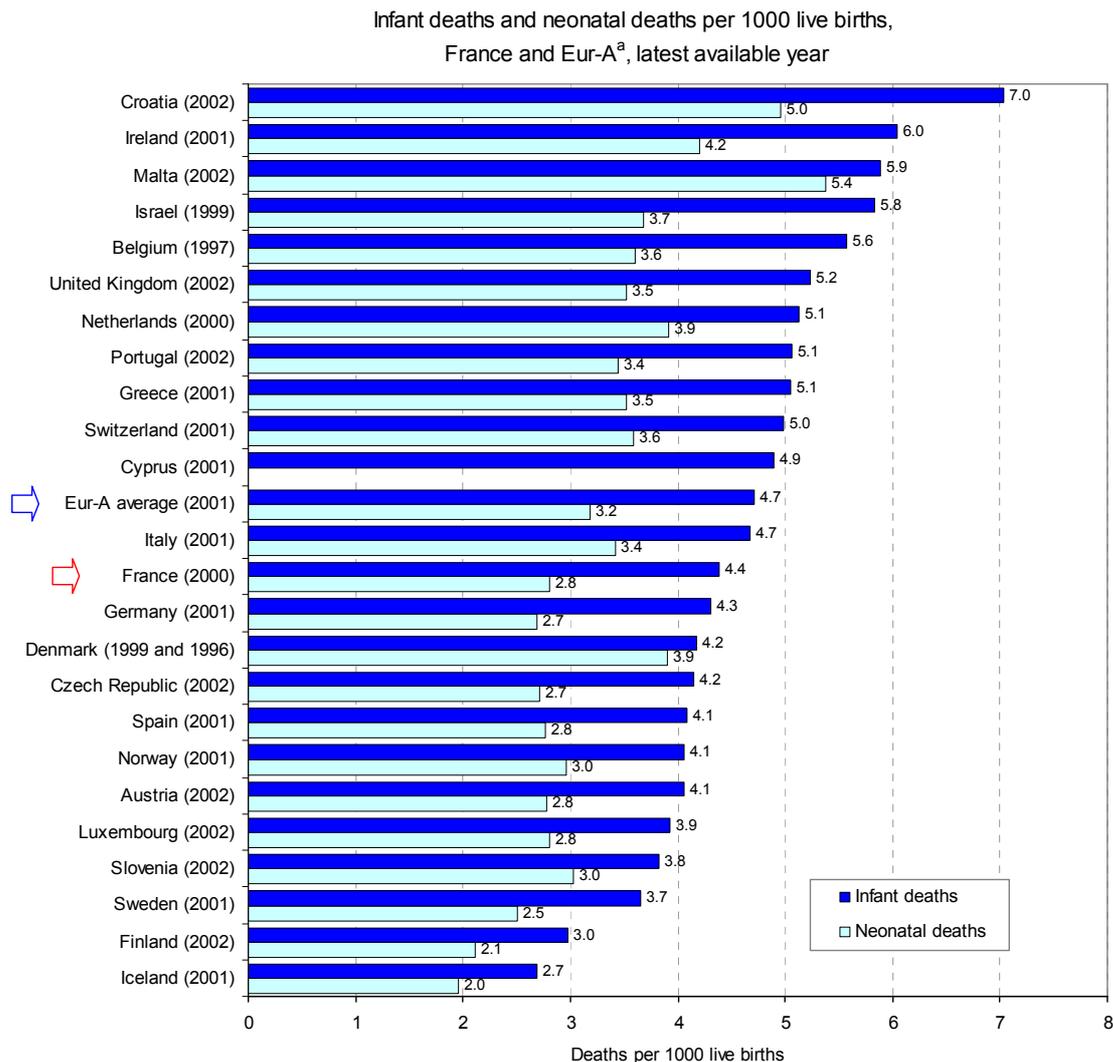
<sup>a</sup> Including Andorra and Monaco.

Source: WHO (2003d).

## Mortality

### *Infant mortality and neonatal death*

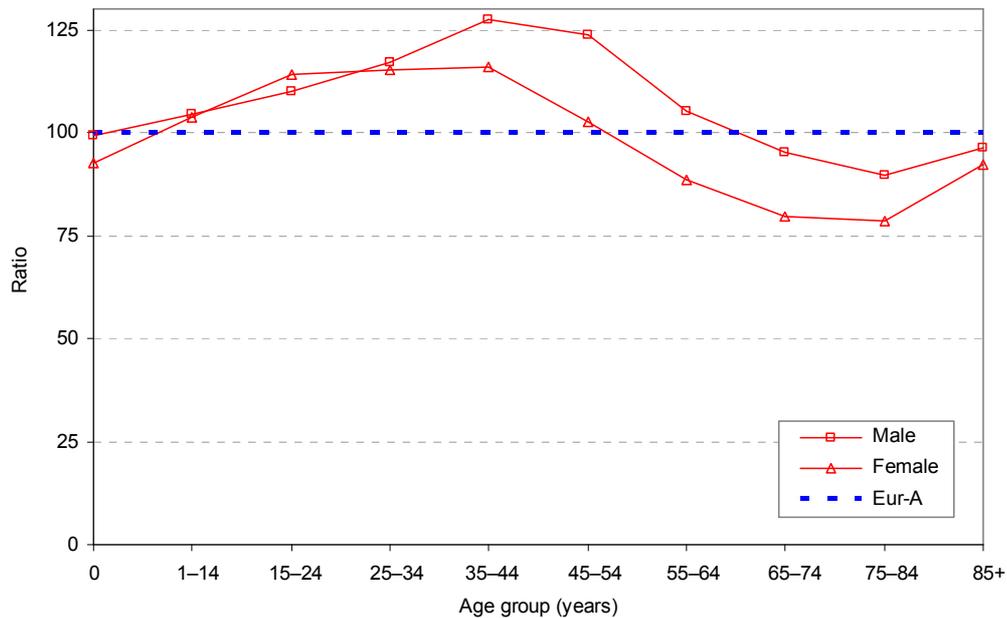
Babies die slightly less frequently during their first year of life in France compared with the Eur-A average, and the neonatal mortality is also lower.



### **Excess mortality**

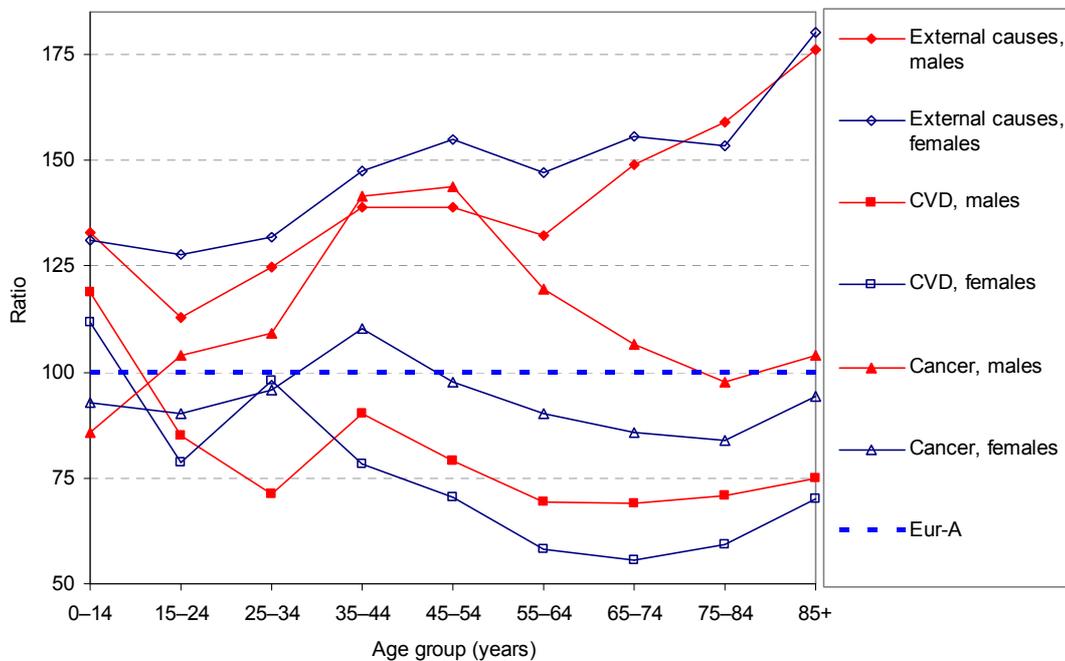
The French population displays excess mortality relative to the Eur-A average during their economically active years, more marked for men (up to 25%) and persisting until retirement. Women older than 54 years and men older than 64 years have a lower mortality rate than their Eur-A counterparts.

Total mortality by sex and age group in France in comparison with Eur-A (Eur-A = 100), 2000



When specific causes are examined, the largest excess mortality for both genders is due to injuries, and French people have a higher probability of dying from external causes at any given age: 15–80% excess. The French overall die less often from CVD than their Eur-A counterparts. However, cancer kills 40% more men in France 35–64 years old and 10% more women 35–44 years old than in Eur-A.

Main causes of mortality by sex and age group in France in comparison with Eur-A (Eur-A = 100), 2000



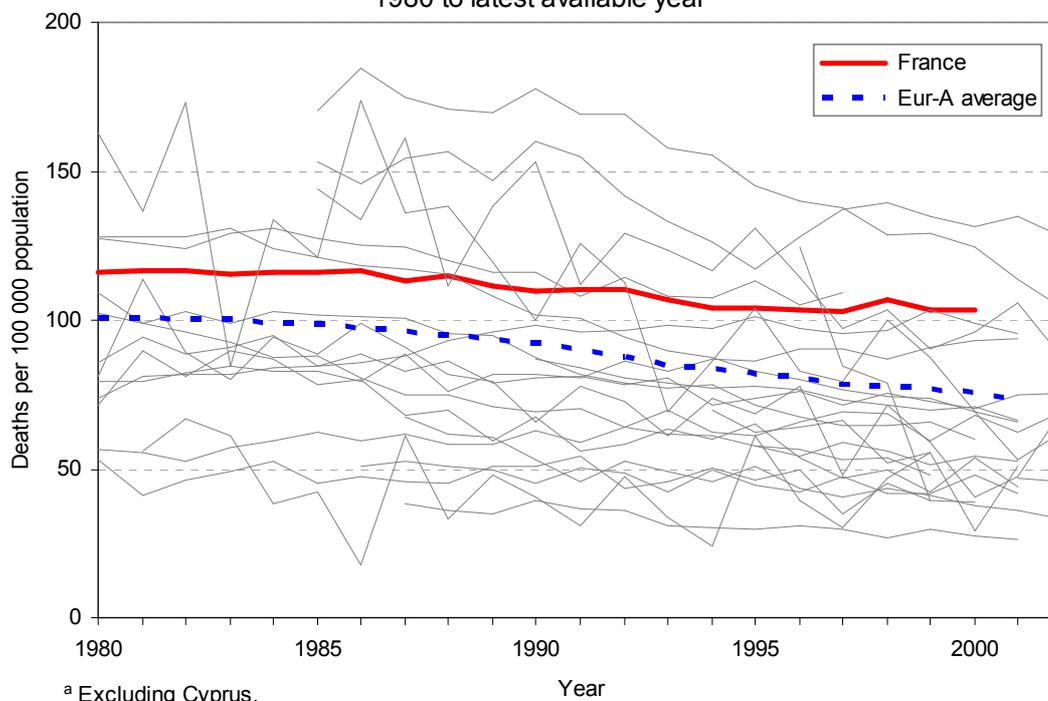
Compared with Eur-A averages for more specific conditions, the largest excess mortality in France in 2000 was due to suicide (60% more), followed by communicable diseases (54% more) and neuropsychiatric disorders (41% more; Annex. Selected mortality).

### Main causes of death

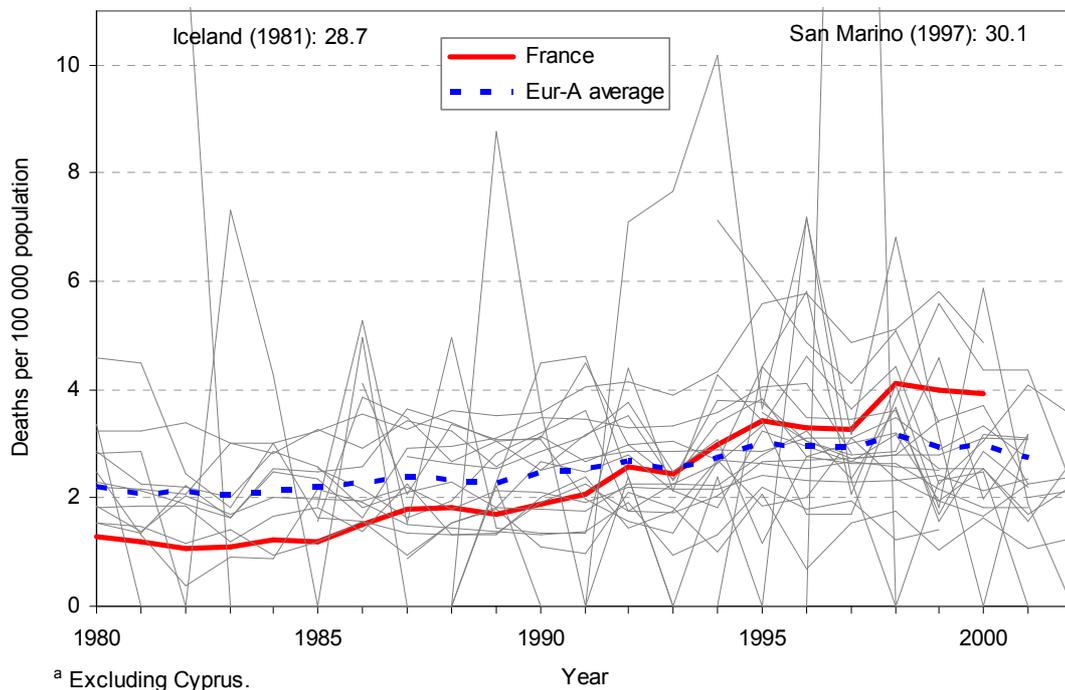
In 2000, selected noncommunicable diseases accounted for about 71% of all deaths in France (11% less than in Eur-A), external causes for 9% (51% more than in Eur-A) and communicable diseases for 2% (Annex. Selected mortality).

Cancer is the largest single cause of death in France, claiming about a third of the deaths (Annex. Selected mortality). The overall mortality rate is comparable to Eur-A, however, as are the rates for specific locations. However, more detailed analysis reveals that lung cancer is stable but a third higher than the – decreasing – Eur-A average for people 25–64 years old, whereas it is increasing among women: by 25% between 1995 and 2000 for the same age group (Annex. Mortality data). French men 30–44 years old (1 out of 10 000) and 45–59 years old (1 out of 1000) have among the highest rates in Eur-A, respectively 75% and 25% higher. Among women 30–44 and 45–59 years old, rates of lung cancer are increasing rapidly, by 25% and 75% respectively in five years. They were a third higher than in Eur-A for younger women (30–44 years) but still 18% lower for those 45–59 years old.

Standardized death rates (SDR) for larynx, trachea, bronchus and lung cancer in males aged 45–59 years, France and Eur-A<sup>a</sup>, 1980 to latest available year



SDR for larynx, trachea, bronchus and lung cancer in females aged 30–44 years, France and Eur-A<sup>a</sup>, 1980 to latest available year



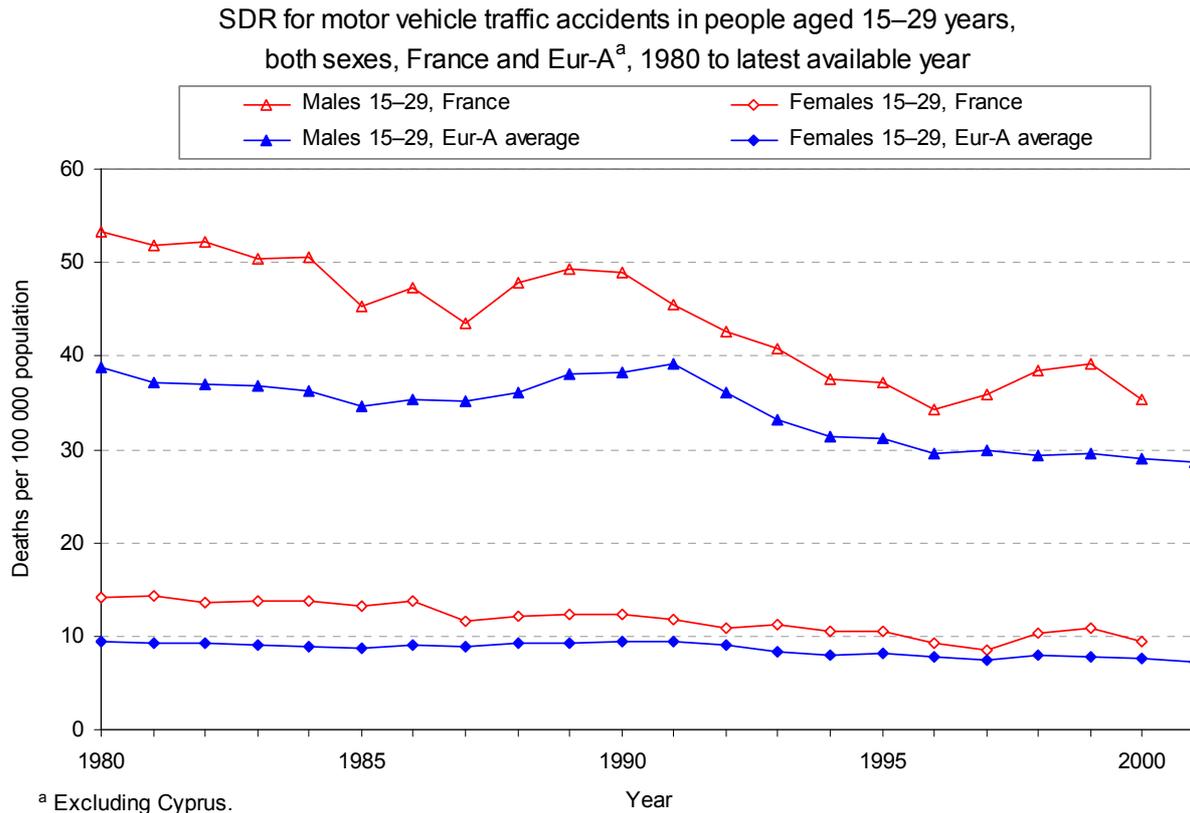
Breast cancer is decreasing slowly in Eur-A while remaining stable in France and even increasing slightly among those 30–44 years old. Cancer of the uterine cervix is stable: 26% lower than the Eur-A average.

France enjoys the lowest mortality from cardiovascular diseases (CVD) in the whole Eur-A, and this is also true, at all ages and for both genders, for its two main components taken separately: ischaemic heart disease and cerebrovascular diseases (respectively one half and one third lower than Eur-A averages; Annexes. Selected mortality and mortality data).

Even though mortality from diabetes is still 14% lower than in Eur-A, it increased by 65% between 1995 and 2000: from 7.2 to 11.9 per 100 000 population. In 1998, diabetes was the main cause of health insurance claims for long-term conditions among people 45–74 years old and the second cause among people 15–44 years old (High Committee on Public Health, 2003).

Both French men and women have been experiencing one of the highest mortality rates from injuries for the past two decades. Although there is a decreasing trend, it is still 40% higher than the Eur-A average rate and therefore remains a preoccupation of the public health authorities (High Committee on Public Health, 2003; Haut Comité de la Santé Publique, 2002).

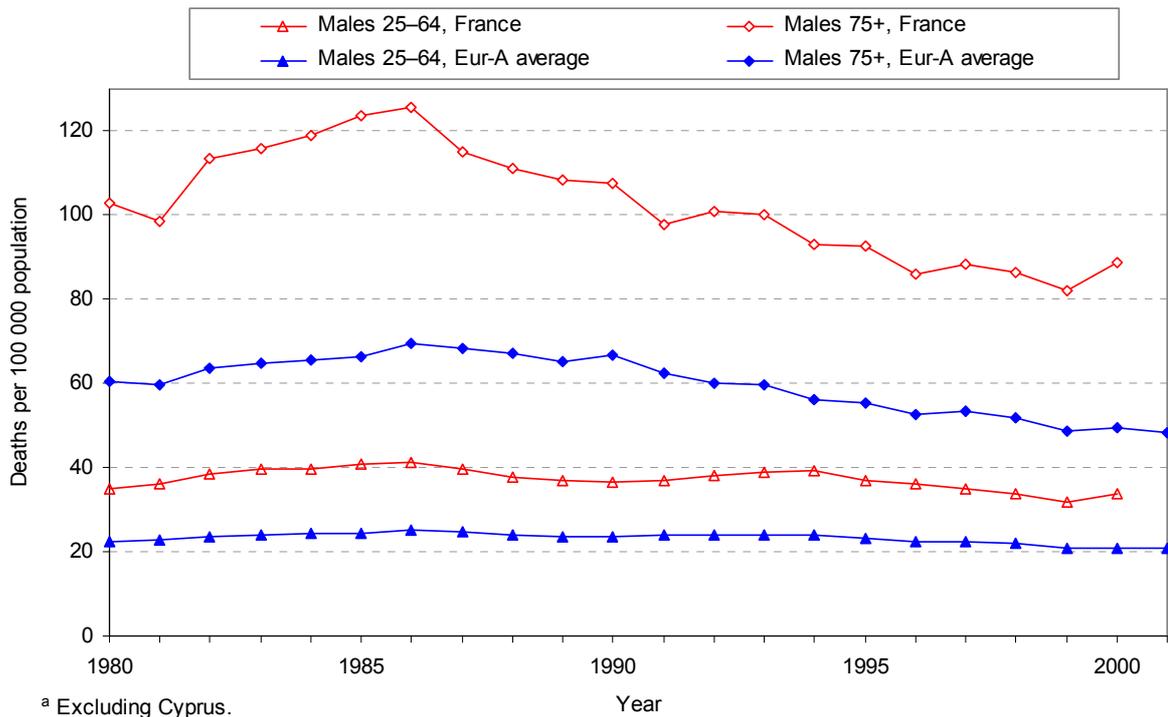
Motor vehicle traffic injuries still kill about 20% more French people of both genders than the Eur-A average, and this applies to all age groups until about 59 years, including children. A French report indicates that the number of people killed on the roads dropped by 21% between 2002 and 2003 and by 50% over the past 20 years, despite more cars and longer distances (Observatoire national interministériel de sécurité routière, 2004b). Young people are at highest risk, men almost four times that of women: 35 versus 9.5 per 100 000. The Observatoire national interministériel de sécurité routière (2004b) has outlined this in relation to notable increases over the past 10 years in the proportions of motorcyclists and moped riders among the victims: respectively 14% and 6.5% of deaths in 2003, corresponding to 33% and 18% increases. According to this source, 6 people are very seriously wounded and have long-term effects for every 10 people who die on the road.



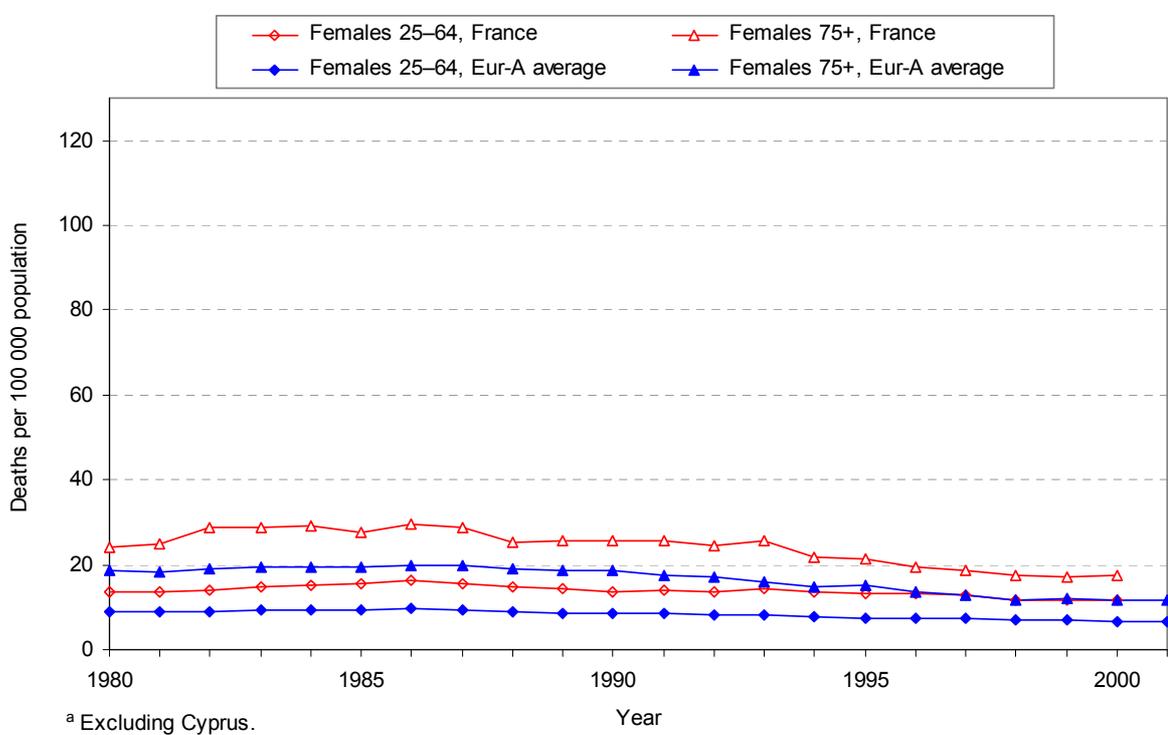
Until 1995 a French person over 64 years of age had one of the highest risks of dying from a fall compared to the Eur-A average. A sharp decrease in 2000 from 77 to 42 per 100 000 for men (75 to 32 for women) brought this risk within the range of the Eur-A average.

One third of the mortality from injuries arises from suicide, with both genders experiencing a 60% higher rate than Eur-A, at 26 per 100 000 men and 8.5 per 100 000 women. Suicide is already more frequent at young ages in France (16 per 100 000 men and 4 per 100 000 women among people 15–29 years old), although it has tended to decrease more rapidly than the Eur-A average since the mid-1990s for men. The decline has been levelling off for people 25–64 years old. One in 1200 men 75 years and older still decides to take his own life.

SDR for suicide and intentional self-harm in males aged 25–64 years and 75+ years, France and Eur-A<sup>a</sup>, 1980 to latest available year



SDR for suicide and intentional self-harm in females aged 25–64 years and 75+ years, France and Eur-A<sup>a</sup>, 1980 to latest available year

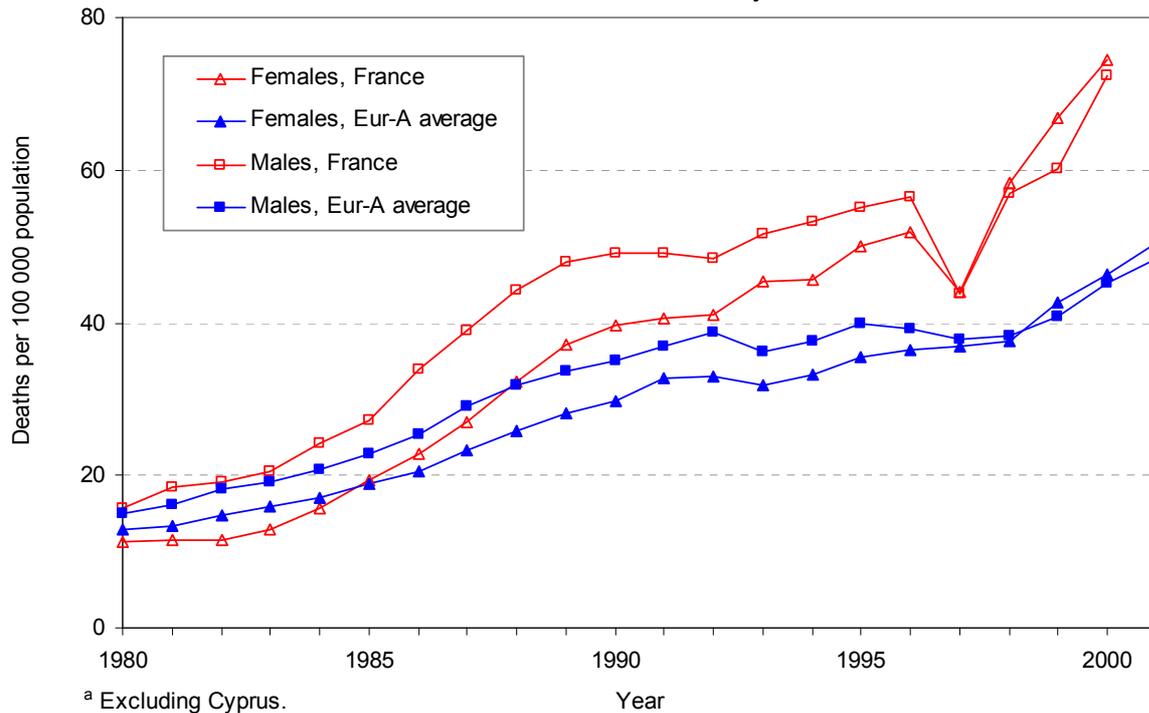


Mortality from neuropsychiatric disorders, which are sometimes associated with self-inflicting harm, is 40% higher than in Eur-A (Annex. Selected mortality). It has increased more rapidly in France, by half

since 1995 versus less than 20% in Eur-A; per 10 000 population, 19 women and 26 men are now dying from this cause.

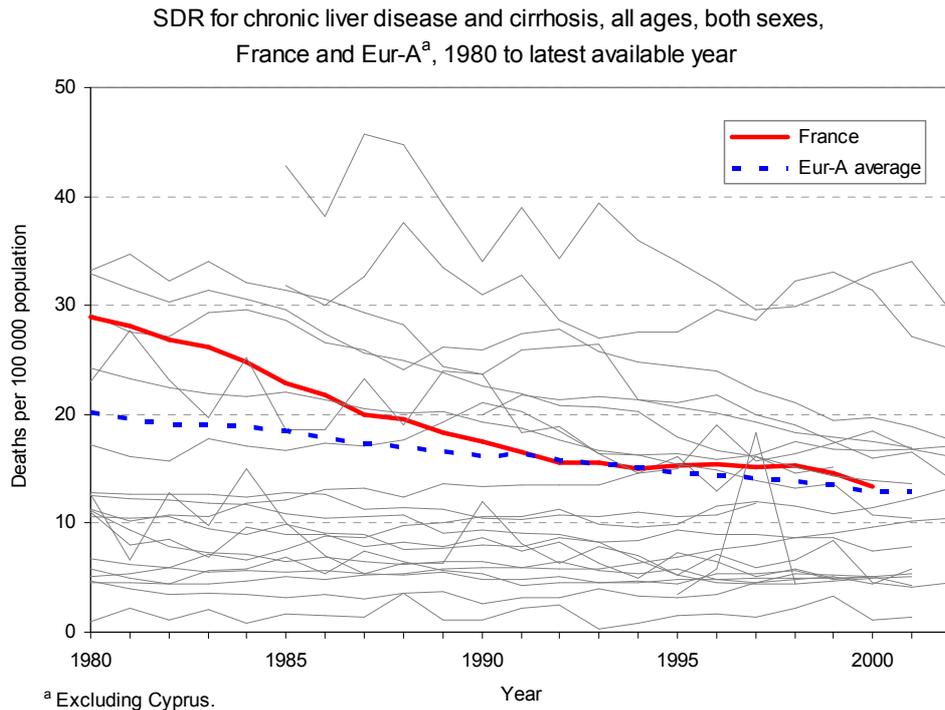
Alzheimer's disease and other degenerative diseases comprise one third of this mortality after 64 years (versus 22–25% in Eur-A), but rates in France are 60% higher and have recently increased rapidly by more than 70% since 1997 versus 17% in Eur-A. Both genders are now equally affected. France had one of the highest rates in 2000, at 75 per 100 000 people 65 years and older.

SDR for Alzheimer's disease and other degenerative diseases of the nervous system in people aged 65+ years, both sexes, France and Eur-A<sup>a</sup>, 1980 to latest available year



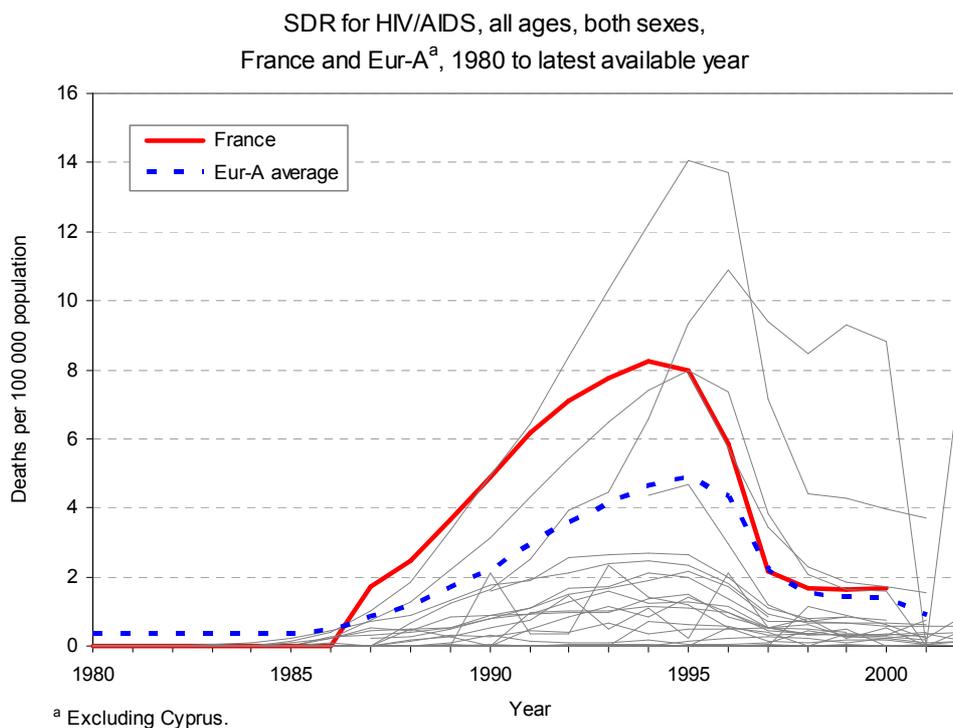
Improved diagnosis and coding practices for these diseases may play a role, but the increase mainly results from a natural epidemiological and demographic consequence of women living to be older than average in countries with low mortality from CVD and cancer. A larger proportion of the population manages to live beyond the usual ages of dying of these classic diseases, and neurodegenerative disorders then comprise a larger proportion as the final pathway to death.

Chronic liver disease and cirrhosis comprised almost half the mortality from digestive diseases. However, the rate in France is not remarkably different from the Eur-A average, but it is not decreasing much.



Mortality from infectious and parasitic diseases is 54% higher in France than the Eur-A average (Annex. Selected mortality). TB still kills predominantly older men who were exposed to TB in the 1940s and 1950s: 26 men out of 100 000 aged 75 years and older (versus 14 in Eur-A) and 13 women in the same age category (versus 6 in Eur-A).

The mortality rate from AIDS was one of the highest in Eur-A during the peak of the epidemic and remained 20% higher in 2000 after an important decline (Annex. Selected mortality). This is mainly due to the higher mortality of adults aged 45–74 years.



## Disability-adjusted life-years

The disability-adjusted life-year (DALY) is a summary measure that combines the impact of illness, disability and mortality on population health. The table lists the top 10 conditions affecting males and females in France in terms of DALYs.

Ten leading disability groups as percentages of total DALYs for both sexes  
in France

Rank	Males		Females	
	Disability groups	Total DALYs (%)	Disability groups	Total DALYs (%)
1	Neuropsychiatric conditions	26.1	Neuropsychiatric conditions	34.0
2	Malignant neoplasms	19.0	Malignant neoplasms	14.9
3	Cardiovascular diseases	13.2	Cardiovascular diseases	9.9
4	Unintentional injuries	10.4	Unintentional injuries	6.5
5	Respiratory diseases	5.4	Respiratory diseases	5.7
6	Digestive diseases	5.0	Musculoskeletal diseases	5.4
7	Sense organ diseases	4.0	Sense organ diseases	5.2
8	Intentional injuries	3.4	Digestive diseases	3.8
9	Musculoskeletal diseases	3.1	Endocrine disorders	2.1
10	Infectious and parasitic diseases	1.7	Infectious and parasitic diseases	1.7

Source : Background data from WHO (2003d).

Neuropsychiatric conditions are the highest burden of disease on French people: a quarter of the total burden for men but as much as a third for women. Since mortality from these disorders is comparatively low, most of the burden arises from their impact on daily living. Cancer is the second highest burden of disease, with more impact on men than women, and CVD ranks third. Injuries, regardless of intention, affect men's lives 1.5 times more than those of women and impose a higher burden on them than CVD.

## Main risk factors

The table presents the top 10 risks to health in developed countries in terms of DALYs. As with the conditions in the previous table, risk factors are estimated to contribute differently to the burden of illness and death in a population. The degree to which the French population is exposed to five of these risks is described below.

Ten leading selected risk factors as causes of  
disease burden measured in DALYs  
in developed countries

Risk factors	Total DALYs (%)
Tobacco	12.2
Blood pressure	10.9
Alcohol	9.2
Cholesterol	7.6
Overweight	7.4
Low fruit and vegetable intake	3.9
Physical inactivity	3.3
Illicit drugs	1.8
Unsafe sex	0.8
Iron deficiency	0.7

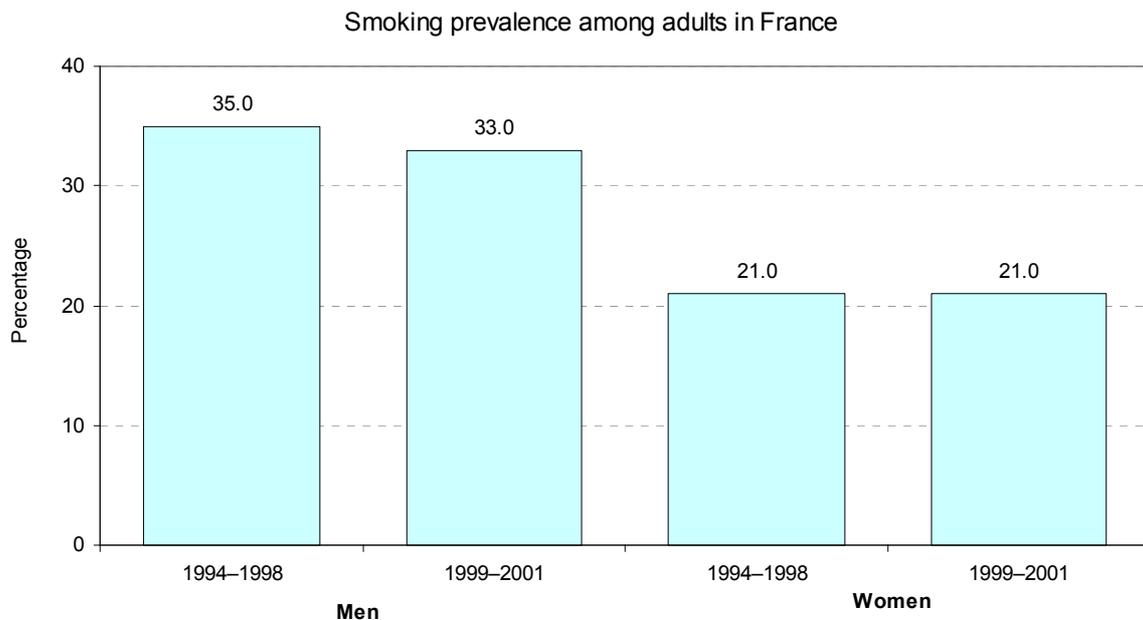
Source : WHO (2002).

## Tobacco

The European Region has only 15% of the world's population but nearly 33% of the worldwide burden of tobacco-related diseases (WHO Regional Office for Europe, 2004g). The annual number of deaths in the Region attributable to the consumption of tobacco products was recently estimated to be 1.2 million, and about 40% occur in Eur-A countries (WHO Regional Office for Europe, 2002a). About half the deaths

affect people in middle age. Typically, the more affluent are the first both to begin smoking and to stop. As they quit, smokers increasingly comprise people with less education and lower income (Bostock, 2003).

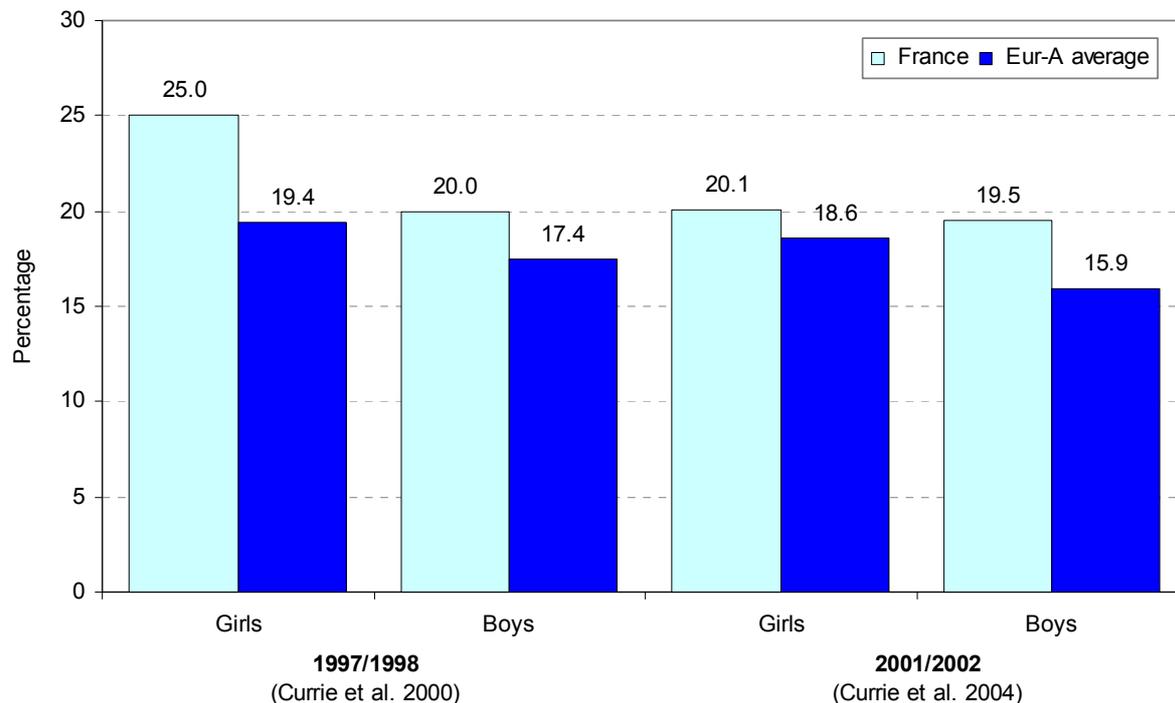
In 2000, French people consumed about 19% fewer cigarettes per person than the Eur-A average, according to official statistics for production, import and export. Between 1996 and 2000, the smoking prevalence has remained stable among adults of both genders, although it was lower among women than men.



Source: WHO Regional Office for Europe (2004f).

The smoking prevalence among 15-year-old boys has remained stable in France since 1997; since it has decreased slightly in Eur-A, they now have one of the highest prevalence rates in the Region. The opposite happened for girls; their prevalence declined from 25% to 20%, which is close to the Eur-A average.

Fifteen-year-olds who smoke every day,  
France and Eur-A<sup>a</sup> average



<sup>a</sup> Excluding Cyprus, Iceland, Luxembourg and San Marino.

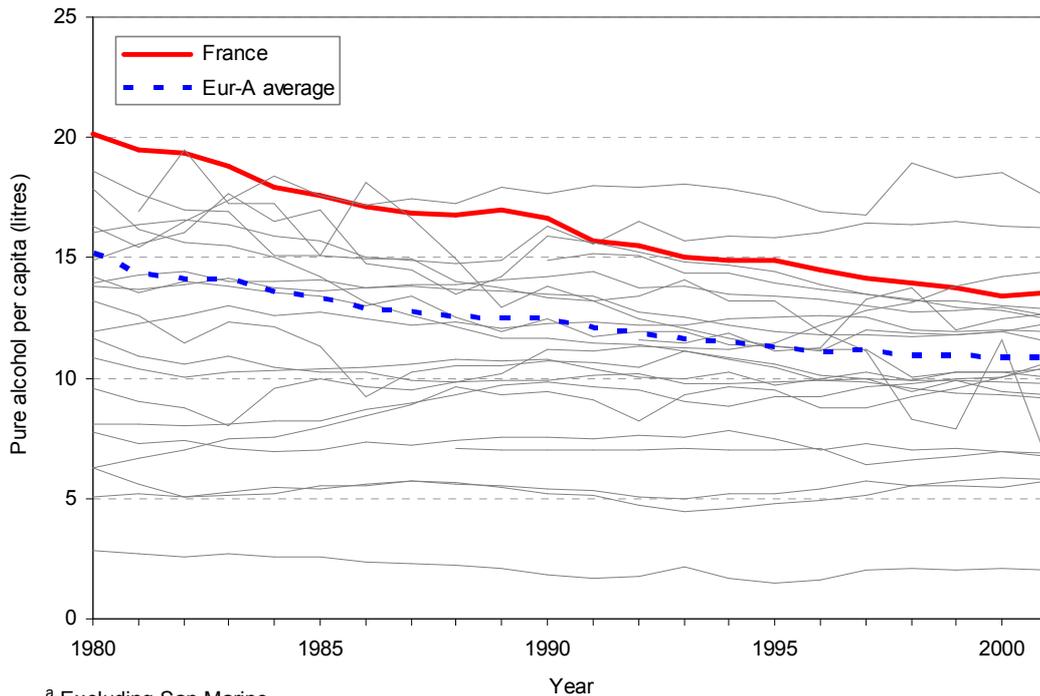
France signed the WHO Framework Convention on Tobacco Control in 2003 and was among the first 40 countries to ratify it in November 2004. France already had some of the most stringent public policies on tobacco control in the Eur-A, including rises in the taxes on cigarettes as well as smoking bans in public transport, public facilities and advertising (WHO Regional Office for Europe, 2004f).

### **Alcohol**

Two major public health issues are related to alcohol consumption: regular drinking of more than small amounts and harmful patterns such as binge drinking (when a person consumes a bottle of wine or equivalent on one occasion; or having five or more “standard” drinks in a row). Both practices cause or aggravate health problems and increase the risks of injury to the drinker and others (European Commission, 2003).

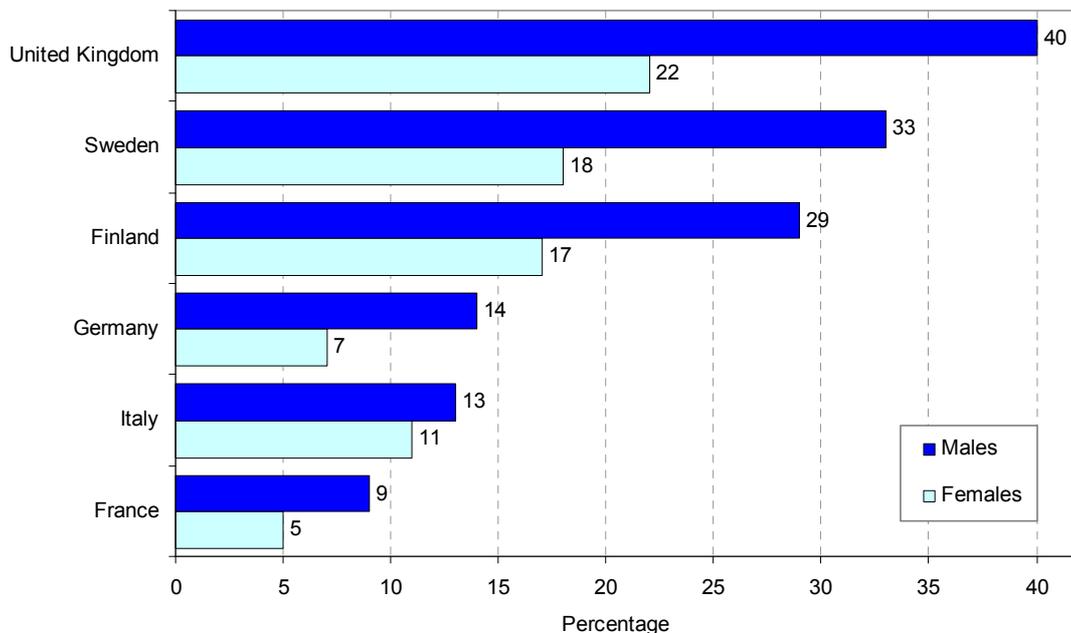
In 2001, pure alcohol consumption levels in France were among the highest in Eur-A based on official statistics on local production, sales, imports and exports. Despite a 30% decrease since 1980, they were still nearly one quarter higher than the Eur-A average. This is true for wine and spirits but not for beer.

Alcohol consumption in the group aged 15+ years, France and Eur-A<sup>a</sup>, 1980 to latest available year



Binge drinking is more of a male habit, reported by French men for 9% of their drinking occasions versus 5% for women; however, this is not the preferred mode of alcohol consumption in France.

Binge drinking as a percentage of all drinking occasions in the past 12 months, selected countries in Eur-A, 2000

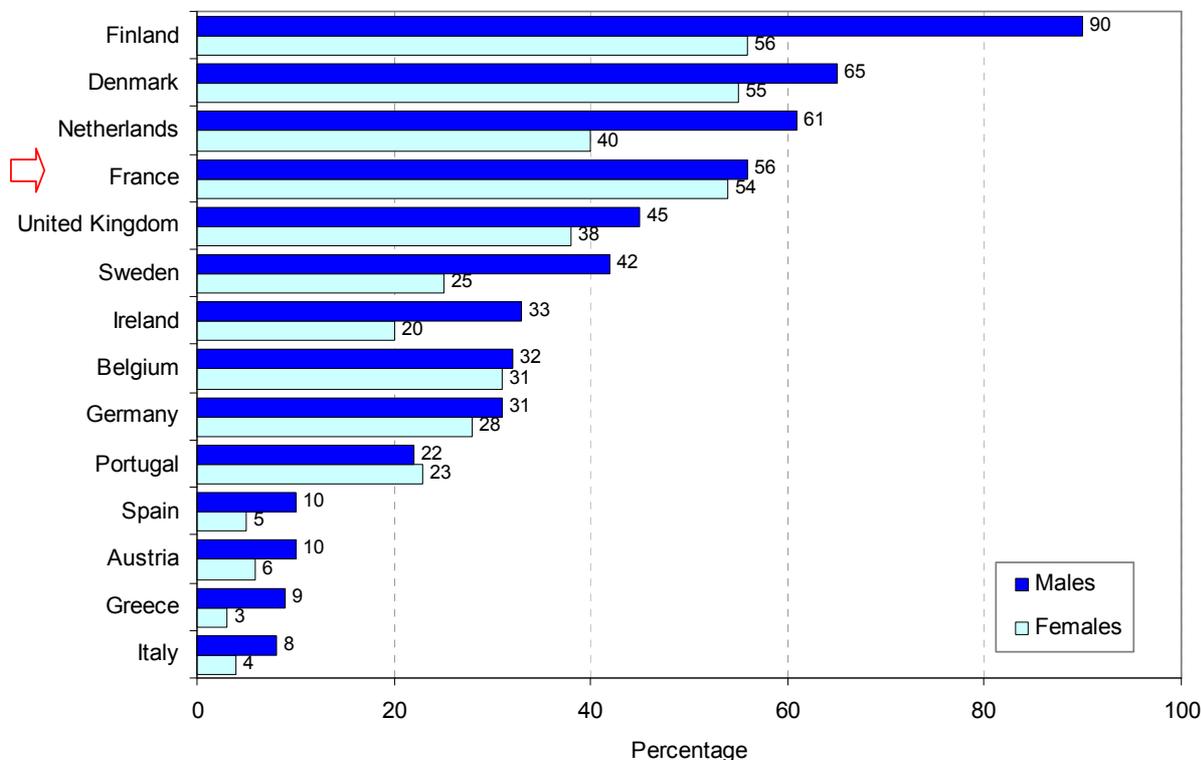


Source: Hemström et al. (2002).

Mortality from liver cirrhosis is a classic and reliable indicator of harmful effects of chronic excessive drinking. It is within the Eur-A average in France (see the section on mortality). However, an earlier survey attributed more than half the deaths from liver cirrhosis to alcohol for both genders

(Hemström et al., 2002). Variations in the coding of deaths classified as “alcoholic cirrhosis” make comparisons between countries unreliable. The figure is therefore descriptive, showing where alcohol was the major risk factor in deaths due to cirrhosis in specific countries.

Mortality from alcoholic liver cirrhosis as a percentage of total mortality from liver cirrhosis, selected countries in Eur-A, averages for 1987–1995

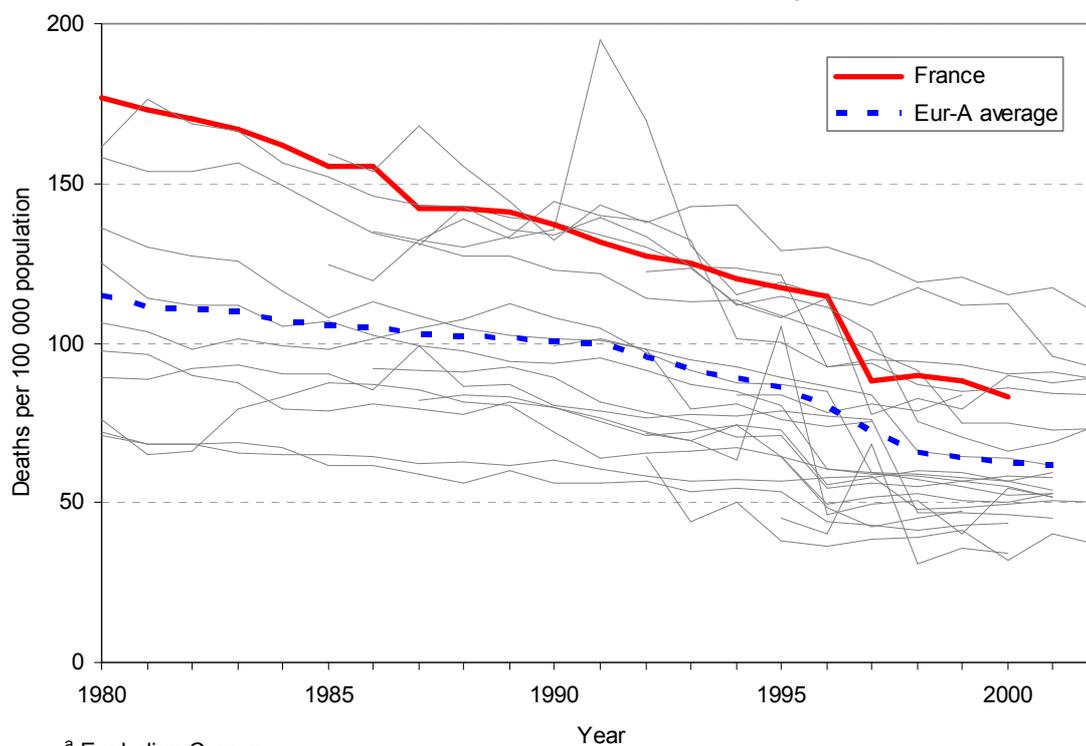


*Note:* Data for Germany refer to the territory of the Federal Republic of Germany as up to 3 October 1990.

*Source:* Hemström et al. (2002).

The mortality rate from alcohol-related causes has declined more rapidly in France than in Eur-A, but is still at 83 per 100 000 population, one third higher than the Eur-A average.

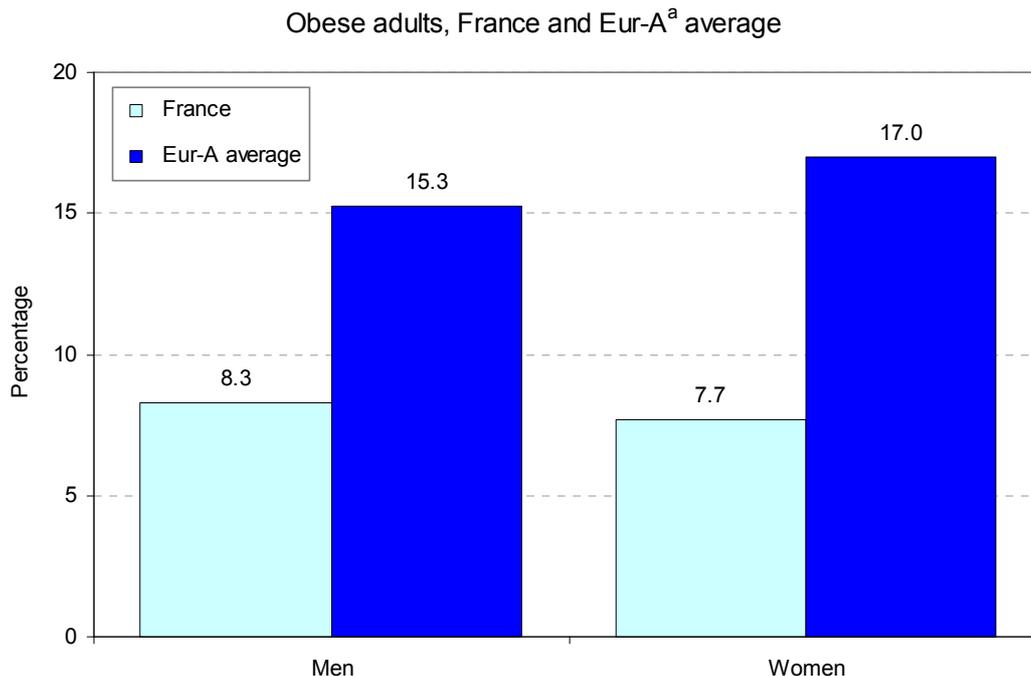
SDR for selected alcohol-related causes, all ages, both sexes,  
France and Eur-A<sup>a</sup>, 1980 to latest available year



### **Excess weight**

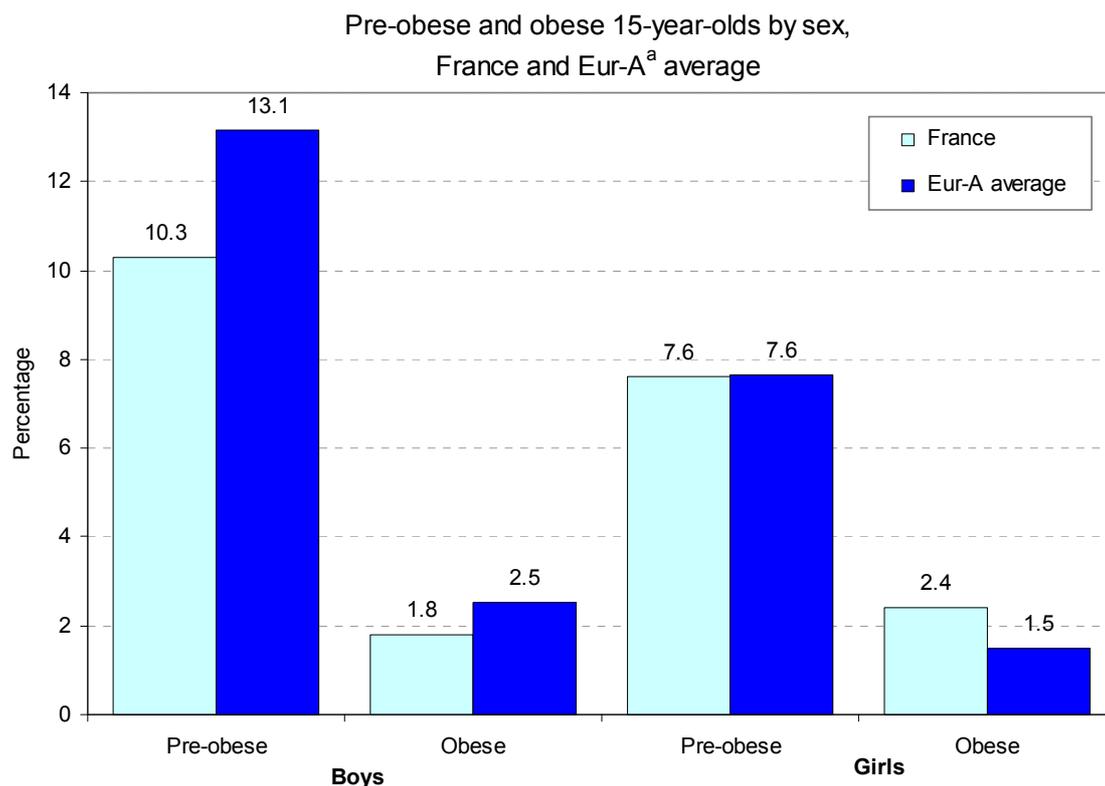
Studies have shown that excess weight contributes to CVD and cancer. In the 15 countries that comprised the European Union before May 2004, research suggests that the condition is responsible for 5% of all cancer cases (3% among men and 6% among women) and overall, almost 300 000 deaths annually (Banegas, 2002; Bergstrom et al., 2001). For children and adolescents, the main problem associated with excess weight, in particular, obesity, is its persistence into adult life and its association with the risk of diabetes and CVD (Stark et al., 1981).

Excess weight and obesity have reached quite alarming proportions in Europe. According to the recommendations for body mass index (BMI), obesity is less common in France (8% of adults), at about half the Eur-A prevalence (Robertson et al., 2004). However, a national nutrition survey (Guilbert et al., 2002) found that as many as 25% of the people 12–75 years old were overweight and 7% were obese in 2002, with more men (41%) than women (24%) being overweight or obese.



<sup>a</sup> Excluding Austria, Croatia, Cyprus, Iceland, Ireland, Luxembourg, San Marino and Slovenia.  
*Sources*: Robertson et al. (2004), the Danish Nutrition Council (2003) for data on Denmark and Israeli Center for Disease Control (2003) for data on Israel.

According to self-reported data on height and weight collected in schools, adjusted to correspond to adult BMI, 10% of 15-year-old French boys and 8% of girls are overweight; obesity has been found in another 2% of both genders. The proportion for boys is below the Eur-A average but at or slightly above average for girls. However, a national survey in 2000–2001 among 14- and 15-year-olds attending school found a similar proportion of overweight (12.4%) and obesity (3.3%) for girls and boys (DREES, 2004). This survey also indicates that 55% of overweight or obese 14- to 15-year-old adolescents were already in that category at the age of 5–6 years. The major determinant of obesity was the father's occupation, with 7.4% obesity among the children of blue-collar workers versus 0.7% among the children of managers (22.4% versus 10.8% for pre-obesity).



<sup>a</sup> Excluding Cyprus, Iceland, Luxembourg and San Marino.

Sources: Mulvihill et al. (2004) and the Danish Nutrition Council (2003) for data on Denmark.

### **Physical inactivity**

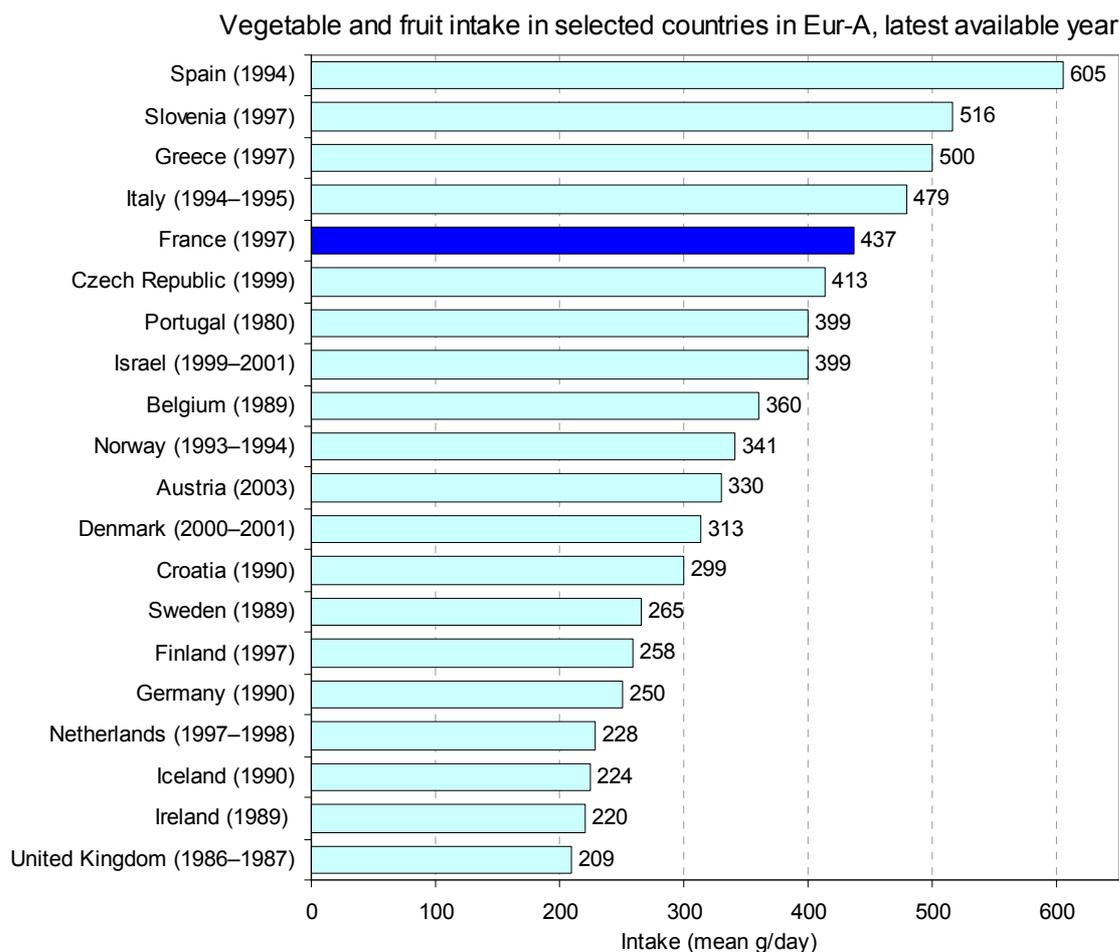
WHO and other international and national agencies encourage at least 30 minutes of physical activity each day, defined as any body movement that results in energy expenditure. Promoting physical activity is probably one of public health's most beneficial interventions, reducing the risk of several diseases and conditions, including CVD, non-insulin-dependent diabetes and obesity, and contributing to physical coordination, strength and mental well-being. It comprises more than sports – it is a cornerstone of a healthy lifestyle, integrated into the routines of everyday life. In Europe, more than 30% of adults do not meet the WHO recommendation for physical activity of 30 minutes daily (Racioppi et al., 2002).

Among 3000 people aged 12–75 years surveyed in 2002, 55% reported they had engaged in some physical activity at least once in the past 15 days, and 45% the previous day; physical activity may be considered as insufficient for a third of the respondents, whereas two thirds reported physical activity of at least 30 minutes the day before (70% of men and 61% of women) (Guilbert et al., 2002).

### **Intake of fruits and vegetables**

Both CVD and cancer have substantial dietary bases. Conservative estimates suggest that better eating habits could prevent about a third of CVD cases and a third of all cancer deaths worldwide (Robertson et al., 2004). Contributing risk factors are high blood pressure and serum cholesterol, overweight and obesity, and low intake of fruits and vegetables. For the large proportion of the population that does not smoke, diet is one of the most important modifiable determinants of cancer risk.

Low fruit and vegetable intake is estimated to cause around 18% of gastrointestinal cancer, about 28% of ischaemic heart disease and 18% of stroke in the European Region. WHO recommends an intake of more than 400 g fruits and vegetables per person per day. The average intake in France in 1997 was 437 g per day.



Sources: WHO Regional Office for Europe (2004b), Robertson et al. (2004) for data on Germany, Greece, Ireland and Spain, IFEW (2003) for data on Austria, Danish Institute of Food and Veterinary Research (2004) for data on Denmark and Israeli Center for Disease Control (2003) for data on Israel.

Mean consumption, however, is a poor measure of the intake distribution within a population. Data for the countries comprising the European Union before May 2004 show that people with higher incomes typically eat more fruits and vegetables than those with lower incomes (Joffe & Robertson, 2001).

## Selected causes of illness

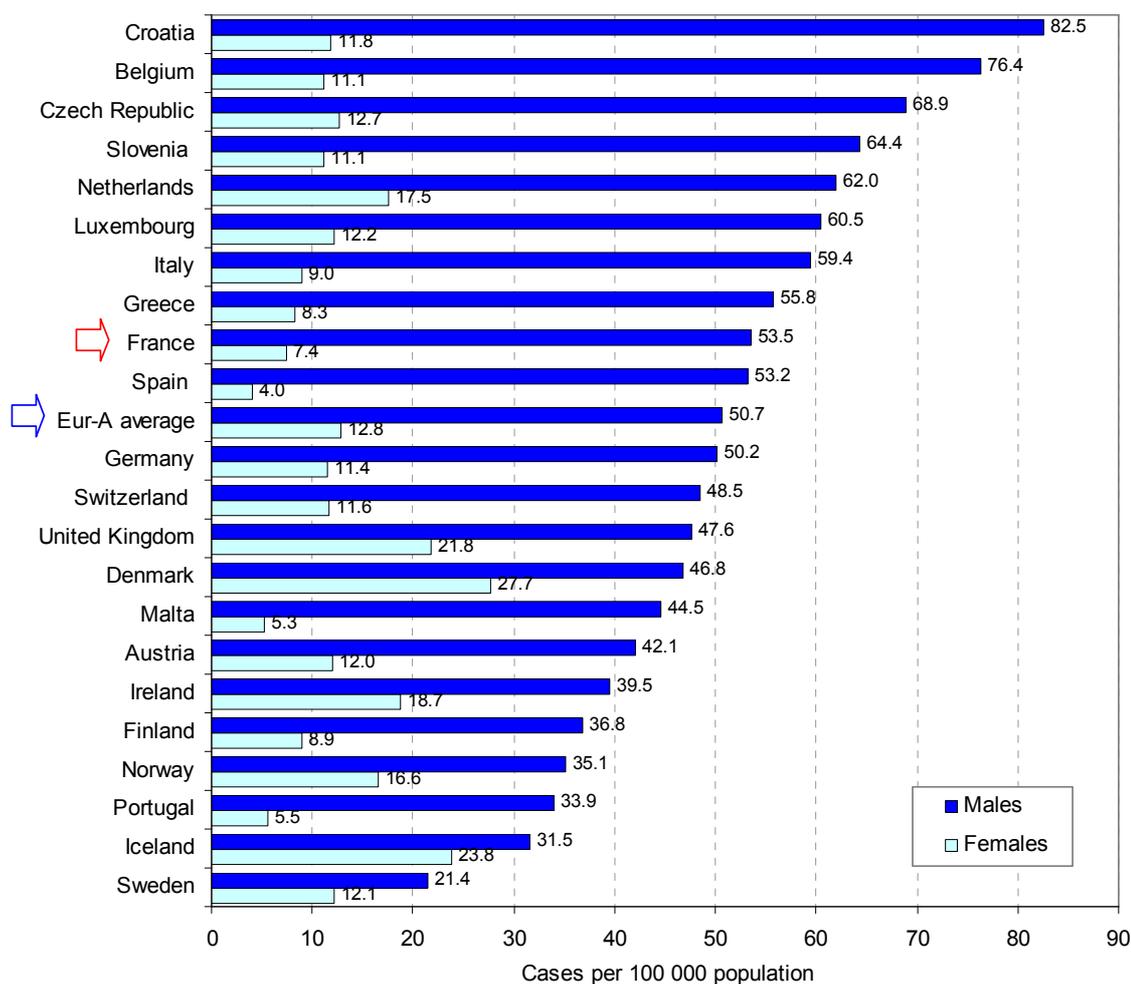
### Cancer

Cancer is the main single cause of death in France (almost a third of deaths), whereas the combination of death and illness due to cancer, represented as DALYs, accounts for 19% of disease burden among French men and 15% among women. Together these indicators show that the burden of cancer on the population is mainly attributable to death as opposed to long-term illness.

The cancer incidence was lower than the Eur-A average in 1995 but increased by 25% by 2000 (versus a 3% increase in Eur-A), affecting 5 out of 1000 people in France (WHO Regional Office for Europe, 2004c).

Lung cancer is the most common cancer in the Region and the world. The most important risk factor is tobacco (Tyczynski et al., 2002).

In 2000, the estimated lung cancer incidence among French men was close to the Eur-A average for men, whereas French women experienced 60% of the Eur-A incidence.

Estimated lung cancer incidence in France and Eur-A<sup>a</sup>, 2000

<sup>a</sup> Excluding Cyprus, Israel and San Marino.

Source: Tyczynski et al. (2002).

## HIV

Increased trade and population movement within the European Region have facilitated the spread of infectious diseases. Surveillance of communicable diseases in western Europe remains incomplete, particularly testing for and reporting HIV. Data on newly diagnosed HIV infections and especially comparisons of rates in countries should be interpreted with caution (EuroHIV, 2003a, b).

France started mandatory HIV case reporting in March 2003, and this makes analysing the HIV epidemic difficult. Mortality for HIV/AIDS is 1.7 per 100 000 population, slightly higher than the Eur-A rate (see section on mortality). The latest estimate for cumulative total HIV cases in France as of end 2003 is 96 600 (ranging between 60 700 and 176 400).

An analysis of AIDS cases by transmission category suggests that most early HIV cases were among injecting drug users. However, injecting-drug-user-related AIDS cases declined between 1996 and 1999, suggesting that HIV prevention efforts targeted at injecting drug users may have been effective (Observatoire Français des Drogues et des Toxicomanies, 2002). The HIV prevalence among injecting drug users seeking treatment seems to have stabilized at about 14%. The AIDS incidence among homosexual and bisexual men had been declining since the late 1990s but has stabilized in recent years. The proportion of new AIDS cases attributable to heterosexual contacts is rising, primarily due to an increased number of new cases originating from countries with generalized epidemics (mainly sub-Saharan Africa) (UNAIDS and WHO, 2004).

## Hepatitis C

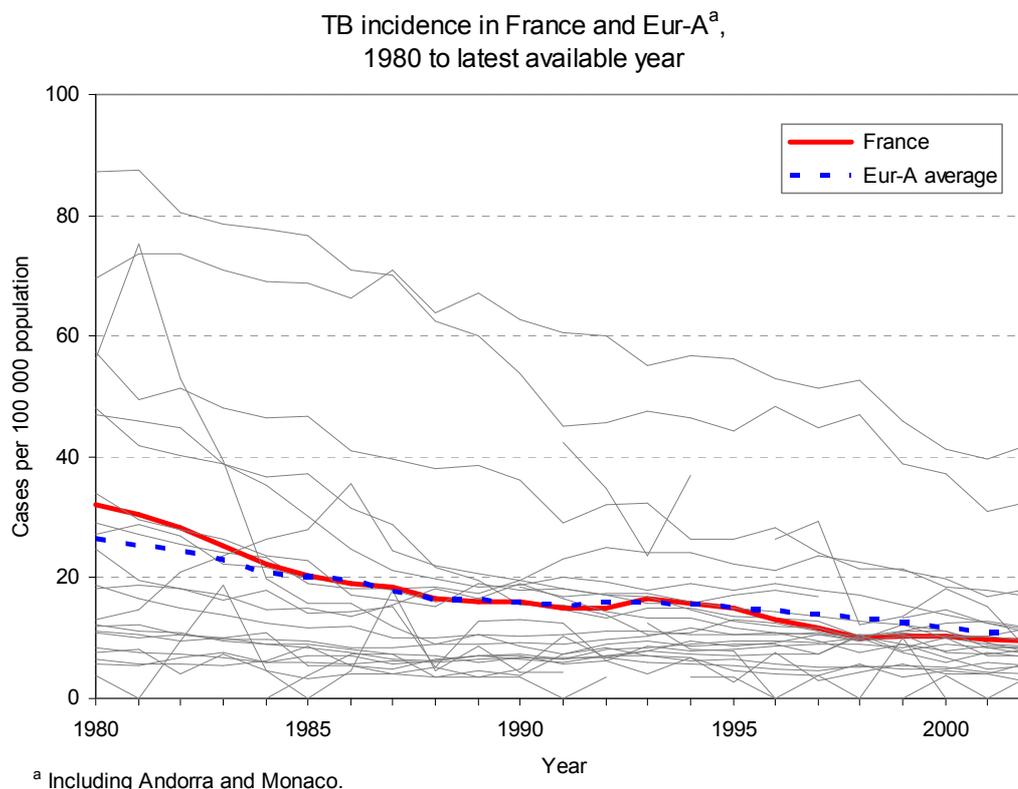
Since the introduction of screening of blood and blood products for hepatitis C in the countries of the European Union before May 2004, transmission of the virus has fallen dramatically. Injecting drug users are now the group at greatest risk, accounting for up to 60–90% of new infections. Young and new injectors are at high risk of contracting the virus shortly after they begin injecting. Wherever injecting drug use is taking place, new epidemics of hepatitis C are likely to emerge. Social exclusion is a factor in and a characteristic of the spread of infection (EMCDDA, 2004). Hepatitis C is predicted to have considerable long-term effects in terms of both health care spending and personal suffering.

An estimated 500 000 to 600 000 people in France were infected with hepatitis C in 1994–1995 (Desenclos et al., 1996). In 1999, among about 20 000 drug-dependent people, 20% of current injecting drug users and 63% of injecting drug users attending specialized centres reported having hepatitis C; this latter proportion represented a 23% increase since the 1994 survey (Observatoire Français des Drogues et des Toxicomanies, 1999).

## TB

Between 1995 and 2001, TB notification rates decreased overall in western Europe. Drug resistance remains relatively low in reporting countries, indicating that TB control is in general effective (EuroTB, 2003). Higher rates are typically found in pockets of risk populations (such as immigrants and refugees from areas with high TB incidence) and among the indigenous poor, homeless people and prison inmates. Higher rates are also associated with HIV.

The incidence of TB in France has decreased by 36% since 1995, closely following the Eur-A average rate.

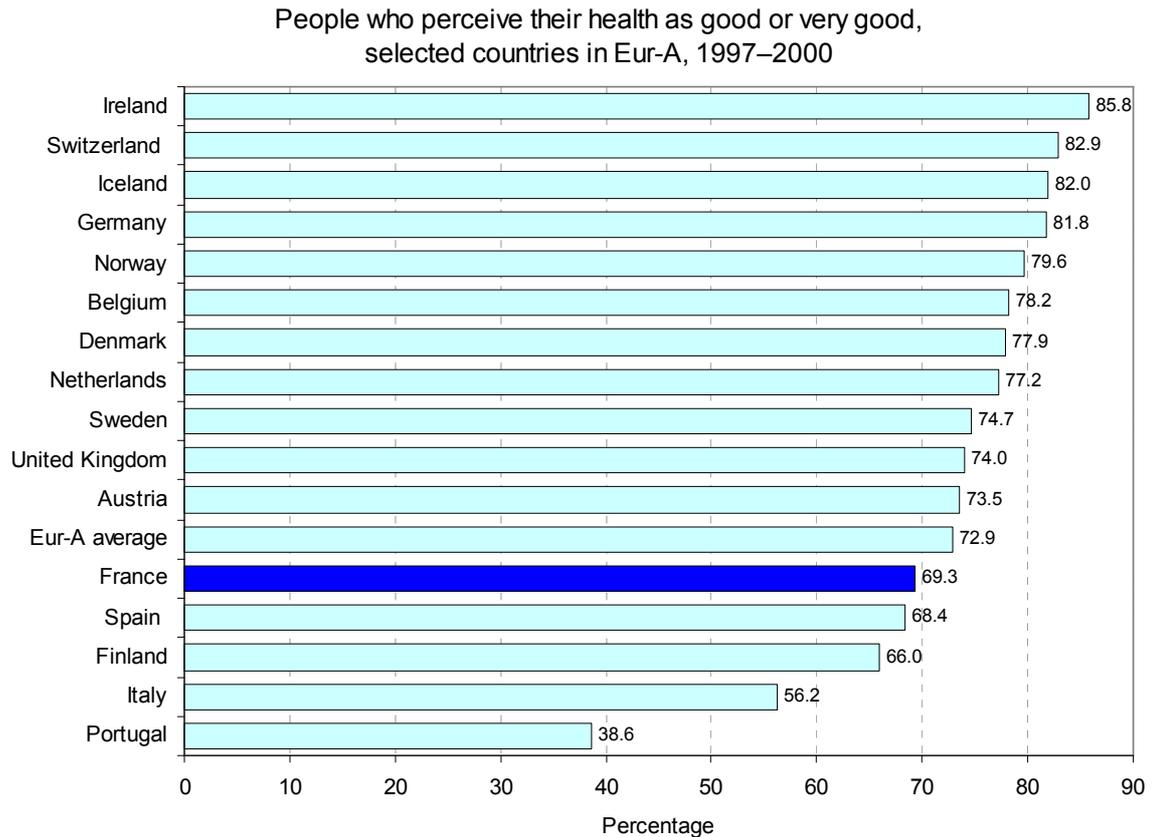


The recent reports of the French High Committee on Public Health (2003) provide more detailed morbidity data (for 1998) as well as information on the above and other health topics, including at the subnational level.

## Self-reported health

People are usually well informed about their health status, the positive and negative effects of their behaviour on their health and their use of health care services. Yet their perceptions of their health can differ from what administrative and examination-based data show about levels of illness within populations. Thus, survey results based on self-reporting at the household level complement other data on health status and the use of services.

French people are generally satisfied with their health, with 69% of adults rating their health as being good or very good.



Sources: European Commission (2003) and Kasmel et al. (2004) for data on Finland.

# Health system<sup>1</sup>

## Organizational structure of the health system

France's health system is based on a national social insurance system complemented by elements of tax-based financing (especially the General Social Tax) and complementary voluntary health insurance. The health system is regulated by the state (parliament, the government and ministries) and the statutory health insurance funds. The state sets the ceiling for health insurance spending, approves a report on health and social security trends and amends benefits and regulation.

The statutory health insurance system has three main schemes. The general scheme covers about 84% of the population (employees in commerce and industry and their families). The agricultural scheme covers farmers and their families (7.2% of the population). The scheme for self-employed people covers 5% of the population. In 2004, a specific insurance fund was established for dependent elderly people. In 1999, universal health insurance coverage was established on the basis of residence in France (99.9% coverage).

Complementary voluntary health insurance has expanded significantly over recent decades and has been available free to those on low incomes since universal health insurance coverage was introduced in 2000. Voluntary health insurance covered about 85% of the population in 2000 and now covers over 95%.

The health system is gradually becoming more decentralized from national to regional level. At the same time, there has been a shift in power from the health insurance funds to the state.

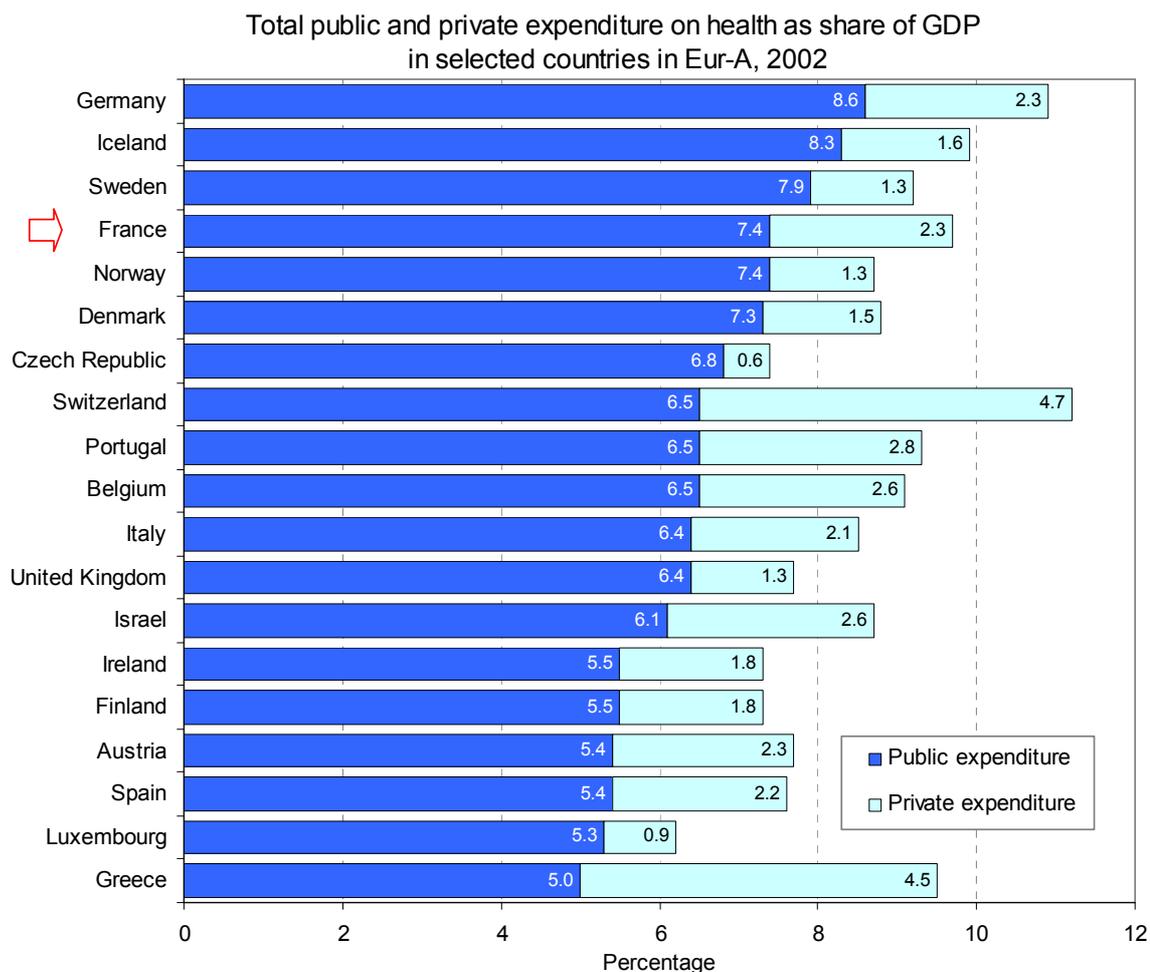
## Health care financing and expenditure

Total expenditure on health care in France was estimated at 9.7% of GDP and US\$ 2736 per capita in purchasing power parity in 2002 (OECD, 2004b) (Annex. Total expenditure on health). Public expenditure constituted 77% of total health expenditure in the same year. As shown in the figure, France spends the second highest amount on health as a proportion of GDP in Eur-A, and public expenditure is ranked third. In 2002, social health insurance constituted 73.3% of total health expenditure, with the remainder consisting of voluntary health insurance (13.2%), out-of-pocket payments (9.8%) and national taxes (3.7%).

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<sup>1</sup> This section is based on publications of the European Observatory on Health Care Systems (2002a–c) and Sandier et al. (2004).

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Since 1996, parliament has approved a national ceiling for health insurance expenditure annually. Once the overall ceiling is set, the budget is divided into four subgroups: private practice, public hospitals, divided between the regions, private for-profit hospitals and social care.

Public hospitals are paid prospectively with global budgets by the main health insurance scheme. For-profit hospitals are paid a fixed rate covering all costs other than physicians, who are paid on a fee-for-service basis. Private not-for-profit hospitals can choose between the two systems of payment (public or for-profit). A reform currently underway aims to introduce an activity-linked reimbursement system and to harmonize the financing of the public and private sector.

Self-employed physicians provide most outpatient and private hospital services. They are paid fees for services directly by the patients, who are then partly reimbursed by the statutory health insurance system. The national agreement between physicians and the funds specifies a negotiated tariff. Alternatively, since 1980, all physicians, and since 1990 only those with specific qualifications, could join Sector 2 (currently about 24% of all physicians), which allows them to charge higher tariffs. Physicians in public hospitals are paid on a salary basis and have been permitted to engage in part-time private practice within the hospital since 1986 as an incentive to stay in the public hospitals.

## Health care provision

Self-employed physicians, dentists, other health care personnel, about 1000 health centres managed by local authorities, and, to a lesser extent, salaried staff in hospitals deliver primary and secondary health care. There is no gatekeeping, and patients have free choice of physician. Recent attempts to introduce a gatekeeping system have not been particularly successful, despite financial incentives aimed at physicians and patients.

Hospitals in France are either public (65% of all inpatient beds), private not-for-profit (15% of inpatient beds) or private for-profit (20% of inpatient beds). Private for-profit hospitals mainly deal with minor surgical procedures, whereas public and private not-for-profit hospitals focus more on emergency admission, rehabilitation, long-term care and psychiatric treatment. France has an average of 8.4 hospital beds per 1000 inhabitants, half of which are acute beds, which is close to the Eur-A average.

Public health policy and practice in France involves many actors and sources of funding, which leads to lack of cohesion among the actors and diluted responsibilities. In March 2003, a new bill was proposed setting out a comprehensive legislative framework for public health policy that developed strategic plans in designated priority areas and established a framework of objectives and targets.

France has about 1.6 million health care professionals, accounting for 6.2% of the working population. In 2002, France had 3.3 physicians and 6.9 nurses per 1000 population, both below the Eur-A averages (Annex. Selected health care resources). There are geographical disparities in the distribution of physicians favouring Paris and southern France and urban relative to rural areas.

## Developments and issues

The health system is noted for its high level of freedom for physicians and choice for patients, pluralism in the provision of health services, easy access to health care for most people and, except for some specialties in certain parts of the country, the absence of waiting lists for treatment. In recent years a number of reforms have transformed its original characteristics, resulting in an increased role for parliament, the replacement of employees' wage-based contributions with a contribution (tax) based on total income and universal coverage based on residence rather than employment.

Financial sustainability has been a key issue for the health system since the 1970s. The system's organizational structure makes controlling expenditure difficult and, although relatively high levels of expenditure on health have resulted in patient satisfaction and good health outcomes, cost containment remains a permanent policy goal. During the late 1990s, however, concerns for equity led to a major reform (universal health insurance coverage) aimed at removing financial barriers to access, which counteracted the general trend of cost containment.

In May 2004, the Conservative government proposed a series of reforms to raise revenue and reduce expenditure, purportedly saving €15 billion by 2007. The government proposes to introduce several changes:

- charging all patients €1 per visit to a physician;
- requiring pensioners who can afford it to pay substantially more than they do currently;
- raising health care levies on firms;
- reducing waste and excessive consumption (particularly of pharmaceuticals);
- reducing reimbursement for expensive pharmaceuticals;
- preventing fraud with national health insurance cards;
- establishing a computerized, personal medical record accessible by any French health care professional to prevent patients from "shopping around"; and
- continuing to move towards gatekeeping.

France's health system is institutionally complex, leading to tensions between the state, health insurance funds and providers. In the future, it will be important to improve relations by clarifying the responsibilities of these key actors.

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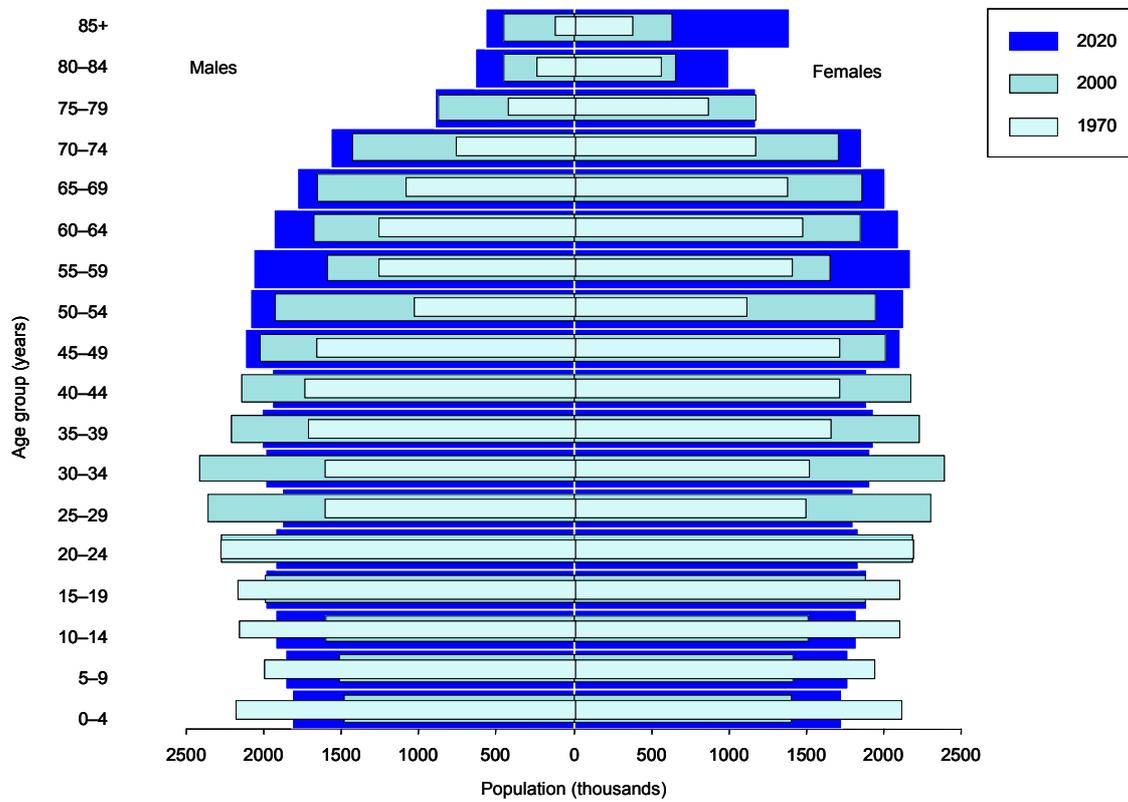
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## Annexes

### Annex. Age pyramid

#### Age pyramid for France



Sources: WHO Regional Office for Europe (2004c) and United Nations (2002).

## Annex. Selected mortality

## Selected mortality in France compared with Eur-A averages

Condition	SDR per 100 000		Excess mortality in France (%)	Total deaths in France (%)	Total deaths in Eur-A (%)
	France (2000)	Eur-A average (2001)			
<b>Selected noncommunicable conditions</b>	437.7	519.5	- 15.7	71.3	79.9
<i>Cardiovascular diseases</i>	167.4	246.3	- 32.0	27.3	37.9
Ischaemic heart disease	49.4	97.3	- 49.2	8.1	15.0
Cerebrovascular disease	39.0	62.0	- 37.0	6.4	9.5
Diseases of pulmonary circulation and other heart disease	55.2	57.0	- 3.0	9.0	8.8
<i>Malignant neoplasms</i>	186.7	181.8	2.7	30.4	28.0
Trachea/bronchus/lung	35.4	37.0	- 4.2	5.8	5.7
Female breast	27.0	27.1	- 0.3	4.4	4.2
Colon/rectal/anal	19.0	20.7	- 8.3	3.1	3.2
Prostate	26.0	25.0	4.1	4.2	3.8
<i>Respiratory diseases</i>	36.0	47.7	- 24.5	5.9	7.3
Chronic lower respiratory diseases	10.3	20.0	- 48.5	1.7	3.1
Pneumonia	10.8	16.5	- 34.6	1.8	2.5
<i>Digestive diseases</i>	29.4	30.7	- 4.4	4.8	4.7
Chronic liver disease and cirrhosis	13.4	12.8	4.6	2.2	2.0
<i>Neuropsychiatric disorders</i>	18.3	13.0	40.6	3.0	2.0
					0.0
<b>Selected communicable conditions</b>	12.5	8.1	54.4	2.0	1.2
HIV/AIDS	1.7	0.9	89.9	0.3	0.1
<b>External causes</b>	56.2	39.5	42.3	9.2	6.1
<i>Selected unintentional causes</i>	17.9	16.1	11.3	2.9	2.5
Motor vehicle traffic injuries	12.0	10.0	20.0	2.0	1.5
Falls	5.9	6.1	- 3.1	1.0	0.9
<i>Selected intentional causes</i>	17.6	11.4	54.3	2.9	1.8
Self-inflicted (suicide)	16.8	10.5	60.4	2.7	1.6
Violence (homicide)	0.9	1.0	- 11.5	0.1	0.1
<b>Ill-defined conditions</b>	36.0	21.3	68.9	5.9	3.3
<b>All causes</b>	613.6	650.1	- 5.6	100.0	100.0

## Annex. Mortality data

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

Causes of death	Sex	France (2000)		Eur-A (2001)			
		Rate	Change (%)	Average	Change (%)	Minimum	Maximum
<b>All causes</b>	Both	17.7	-15.0	17.0	-20.4	12.9	28.2
	M	20.0	-13.9	19.2	-20.3	12.6	32.2
	F	15.3	-16.4	14.8	-20.4	4.9	24.1
<i>Cardiovascular diseases</i>	M	0.7	22.0	0.9	-26.0		1.8
	F	0.8	-12.4	1.0	-21.8		1.6
Ischaemic heart disease	M				-75.0		0.6
	F				-66.7		0.2
Cerebrovascular disease	M	0.2	120.0	0.2	-44.4		0.4
	F	0.2	-23.1	0.2	-39.4		0.7
Malignant neoplasms	M	2.8	-17.6	3.3	-15.4		5.1
	F	2.5	-2.0	2.7	-10.4		4.9
Lung cancer	M				-80.0		0.2
	F						0.3
Breast cancer	F				-100.0		0.1
<i>Respiratory diseases</i>	M	0.5	-31.5	0.8	-13.7		3.0
	F	0.4	-28.1	0.7	-11.9		2.4
<i>Digestive diseases</i>	M	0.2	-4.8	0.3	-21.6		0.7
	F	0.2	-30.4	0.2	-25.0		2.6
<i>External causes</i>	M	8.5	-20.8	6.4	-30.7	3.5	20.3
	F	5.2	-19.8	4.0	-24.3		7.0
Motor vehicle traffic injuries	M	3.7	-3.7	2.7	-30.3		8.0
	F	1.9	-32.7	1.8	-29.3		4.1
Suicide	M	0.6	60.5	0.4	-11.9		0.7
	F	0.2	36.4	0.1	0.0		0.6

Blank = rate &lt; 0.1.

Table 2. Selected mortality data for the group aged 15–24 years by sex in France and Eur-A:  
SDR per 100 000 population and percentage changes from 1995 to latest available year

Causes of death	Sex	France (2000)		Eur-A (2001)			
		Rate	Change (%)	Average	Change (%)	Minimum	Maximum
<b>All causes</b>	All	58.9	-10.2	53.1	-13.2	37.4	69.7
	M	85.4	-9.1	77.8	-13.0	59.4	110.2
	F	31.5	-12.9	27.7	-13.2	13.9	34.8
<i>Cardiovascular diseases</i>	M	2.8	9.4	3.3	-12.1		5.7
	F	1.4	-19.4	1.8	-13.1		2.9
Ischaemic heart disease	M	0.3	8.3	0.3	-15.0		1.6
	F	0.1	-37.5	0.1	-7.7		0.7
Cerebrovascular disease	M	0.7	37.7	0.7	-13.6		1.4
	F	0.3	-49.1	0.4	-24.1		1.4
Malignant neoplasms	M	5.6	11.2	5.4	-7.9		15.5
	F	3.4	-4.6	3.7	-7.9		7.0
Lung cancer	M	0.1	150.0	0.1	-50.0		0.3
	F	0.1	150.0	0.0	-33.3		0.3
Breast cancer	F			0.1	-16.7		0.3
<i>Respiratory diseases</i>	M	1.0	-30.5	1.1	-25.7		4.5
	F	0.8	-27.9	0.8	-18.8		2.0
<i>Digestive diseases</i>	M	0.3	-35.8	0.5	-28.8		1.2
	F	0.2	-31.4	0.3	-30.4		1.1
<i>External causes</i>	M	62.0	-10.1	54.9	-12.0	33.0	96.5
	F	18.3	-14.4	14.3	-14.8	6.9	23.5
Motor vehicle traffic injuries	M	36.8	-0.7	30.2	-9.3	14.9	71.1
	F	10.7	-7.6	8.1	-10.7	2.6	14.3
Suicide	M	12.3	-17.9	11.2	-11.5		36.7
	F	3.6	-19.6	2.5	-24.3		7.5

Blank = rate &lt; 0.1.

Table 3. Selected mortality data for the group aged 25–64 years by sex in France and Eur-A:  
SDR per 100 000 population and percentage changes from 1995 to latest available year

Causes of death	Sex	France (2000)		Eur-A (2001)			
		Rate	Change (%)	Average	Change (%)	Minimum	Maximum
<b>All causes</b>	All	341.4	-7.9	315.4	-13.1	218.8	449.7
	M	484.1	-9.2	425.4	-14.3	276.0	661.7
	F	202.9	-4.6	208.4	-11.0	128.0	322.5
<i>Cardiovascular diseases</i>	M	81.7	-10.5	110.6	-20.8	72.2	225.0
	F	24.6	-9.4	38.2	-21.3	23.4	74.7
Ischaemic heart disease	M	35.2	-8.2	59.8	-24.6	35.2	108.6
	F	5.4	-16.2	13.6	-28.0	5.4	28.6
Cerebrovascular disease	M	13.6	-21.7	17.4	-22.0	7.5	56.6
	F	7.3	-7.5	10.5	-20.2	5.2	27.0
Malignant neoplasms	M	189.8	-5.4	148.8	-9.8	91.0	217.2
	F	97.1	0.1	102.4	-7.7	76.1	155.2
Lung cancer	M	57.9	-0.4	43.9	-12.8	18.5	71.0
	F	10.4	26.2	13.3	11.7	6.9	32.8
Breast cancer	F	28.4	-4.9	27.5	-14.3	14.7	37.2
<i>Respiratory diseases</i>	M	12.9	-23.5	15.8	-19.2	8.5	29.7
	F	5.3	-11.4	7.9	-12.3	3.7	22.6
<i>Digestive diseases</i>	M	33.0	-12.0	31.8	-9.6	3.1	67.0
	F	13.4	-13.0	13.4	-7.5	4.2	26.2
<i>External causes</i>	M	80.1	-12.4	59.9	-10.5	28.2	120.7
	F	26.1	-15.5	17.8	-10.6		33.1
Motor vehicle traffic injuries	M	19.1	-7.1	15.8	-7.8	6.5	34.0
	F	5.6	-18.4	4.3	-14.4		7.4
Suicide	M	33.8	-9.0	21.2	-9.0	6.6	56.4
	F	11.7	-11.5	6.8	-11.1		15.8

Blank = rate < 0.1.

Table 4. Selected mortality data for the group aged 65+ years by sex in France and Eur-A:  
SDR per 100 000 population and percentage changes from 1995 to latest available year

Causes of death	Sex	France (2000)		Eur-A (2001)			
		Rate	Change (%)	Average	Change (%)	Minimum	Maximum
<b>All causes</b>	All	3760.3	-1.6	4199.5	-11.5	3714.4	6010.0
	M	5012.4	-2.1	5328.5	-13.2	4658.1	7580.8
	F	2937.7	-1.1	3460.2	-11.5	2937.7	5088.6
<i>Cardiovascular diseases</i>	M	1614.4	-7.3	2232.9	-23.4	1614.4	4272.2
	F	1027.5	-8.9	1613.4	-21.7	1027.5	3314.3
Ischaemic heart disease	M	517.5	-5.4	948.2	-20.3	517.5	1702.7
	F	244.7	-9.2	539.5	-17.4	244.7	1084.7
Cerebrovascular disease	M	354.7	-13.8	536.2	-35.9	324.8	1302.3
	F	268.0	-13.5	457.0	-32.6	170.4	1018.5
Malignant neoplasms	M	1527.1	-3.4	1482.9	-12.1	1175.1	1900.6
	F	653.0	-2.6	749.8	-9.4	589.1	1088.5
Lung cancer	M	320.8	-5.4	371.8	-22.0	196.0	615.4
	F	45.4	6.9	81.7	15.6	13.8	213.2
Breast cancer	F	108.8	-1.0	113.9	-10.1	83.3	164.1
<i>Respiratory diseases</i>	M	419.7	-13.6	545.9	-13.6	371.8	1115.6
	F	201.1	-10.9	266.5	-13.9	157.9	716.3
<i>Digestive diseases</i>	M	200.8	-11.7	205.0	-10.5	117.8	342.9
	F	121.6	-13.1	143.3	-20.3	77.8	196.0
<i>External causes</i>	M	248.2	-6.3	152.6	2.0	80.6	282.8
	F	151.2	-5.1	91.0	0.7	41.3	157.3
Motor vehicle traffic injuries	M	21.3	-11.7	20.4	-15.3	8.7	46.0
	F	8.9	-18.8	7.9	5.4	0.0	15.5
Suicide	M	59.2	-6.9	34.3	-13.5	8.8	86.1
	F	16.0	-17.2	9.9	-17.6	1.1	23.6

*Annex. Total expenditure on health per capita***Total public and private expenditure on health per capita, in selected countries in Eur-A, 2002**

<b>Country</b>	<b>Expenditure (US\$ purchasing power parity)</b>
Austria	2220
Belgium	2515
Czech Republic	1118
Denmark	2580
Finland	1943
France	2736
Germany	2817
Greece	1814
Iceland	2807
Ireland	2367
Israel	1622
Italy	2166
Luxembourg	3065
Netherlands	2643
Norway	3083
Portugal	1702
Spain	1646
Sweden	2517
Switzerland	3445
United Kingdom	2160
Eur-A average	2348

Sources : OECD (2004b) and WHO Regional Office for Europe (2004c) for 2001 data on Israel.

## Annex. Selected health care resources

Selected health care resources per 100 000 population in Eur-A,  
latest available year

Eur-A	Nurses		Physicians		Acute hospital beds	
	Number	Year	Number	Year	Number	Year
Andorra	316.1	2002	304.2	2002	283.2	2002
Austria	587.4	2001	332.8	2002	609.5	2002
Belgium	1075.1	1996	447.8	2002	582.9	2001
Croatia	501.6	2002	238.3	2002	367.3	2002
Cyprus	422.5	2001	262.3	2001	406.6	2001
Czech Republic	971.1	2002	350.5	2002	631.3	2002
Denmark	967.1	2002	364.6	2002	340.2	2001
Finland	2166.3	2002	316.2	2002	229.9	2002
France	688.6	2002	333.0	2002	396.7	2001
Germany	973.1	2001	335.6	2002	627.0	2001
Greece	256.5	1992	453.3	2001	397.1	2000
Iceland	898.2	2002	363.6	2002	368.2	1996
Ireland	1676.2	2000	238.3	2001	299.5	2002
Israel	598.4	2002	371.3	2002	218.0	2002
Italy	296.2	1989	612.1	2001	397.9	2001
Luxembourg	779.3	2002	259.3	2002	558.7	2002
Malta	551.1	2002	267.2	2002	348.8	2002
Monaco	1621.4	1995	664.3	1995	1553.6	1995
Netherlands	1328.2	2001	314.9	2002	307.4	2001
Norway	2055.7	2001	364.5	2002	308.9	2001
Portugal	384.0	2001	322.9	2001	330.8	1998
San Marino	507.7	1990	251.7	1990	–	–
Slovenia	717.9	2002	224.2	2002	414.3	2002
Spain	367.2	2000	324.3	2000	296.4	1997
Sweden	975.1	2000	304.1	2000	228.3	2002
Switzerland	830.0	2000	361.6	2002	398.3	2002
United Kingdom	497.2	1989	210.0	2002	390.0	2002
Eur-A average	819.8	2001	354.1	2002	409.6	2001

Sources: WHO Regional Office for Europe (2004c) and OECD (2004b) for data on physicians and acute hospital beds for the United Kingdom.

## Technical notes

### Calculation of averages

In general, the average annual or ten-year percentage changes have been estimated using linear regression. This gives a clearer indication of the underlying changes than estimates based on the more straightforward percentage change between two fixed points over a period.

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.

### Data sources

To make the comparisons as valid as possible, data for each indicator have, as a rule, been taken from one common international source or from the Statistical Office of the European Communities (EUROSTAT) to ensure that they have been harmonized in a reasonably consistent way. Unless otherwise noted, the source of data for figures and tables is the January 2004 version of the WHO Regional Office for Europe's European health for all database.

### 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: ICD9 and ICD10, 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 were disaggregated to Member State level for the highlights reports.

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

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

### Household surveys

Household surveys are currently the only source of evidence of health status at the individual level. The information generated is subjective and self reported. It complements the official aggregated statistics on death rates, life expectancy and morbidity. Tools are available for both designing the surveys and analytically estimating health, adjusted for differences in cultural norms and expectations of health, so that survey results become comparable across populations and groups.

### 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.

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<sup>1</sup> *The world health report 2003 – Shaping the future*. Geneva, World Health Organization, 2003 (<http://www.who.int/whr/2003/en/>, accessed 25 May 2004).

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## Ranking

A special case of comparison gives each country a rank order. Although useful as a summary measure, ranking can be misleading and should be interpreted with caution, especially if used alone, as the rank is sensitive to small differences in the value of an indicator. Also, when used to assess trends (as in the table at the start of the section on health status), ranking can hide important absolute changes in the level of an individual country. Graphs have usually been used to show time trends from 1970 onwards. These graphs present the trends for all the reference countries and for the EU-15, as appropriate. Only the country in focus and the appropriate 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.

## 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 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 used for comparison are called reference groups and comprise:

- countries with similar health and socioeconomic trends or development; and/or
- geopolitical groups such as the European Union (EU), the newly independent states or the central Asian republics.

The fifteen-member EU (EU-15) is the reference group comprising Austria, Belgium, Denmark, Germany, Greece, Finland, France, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.

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.

## Glossary

<i>Causes of death</i>	<i>ICD-10 code</i>
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 <sup>1</sup> .
Healthy life expectancy (HALE)	HALE summarizes total life expectancy into equivalent years of full health by taking account of years lived in less than full health due to diseases and injuries.
Income poverty line (50% of median income)	The percentage of the population living below a specified poverty line: in this case, with less than 50% of median income.
Life expectancy at birth	The average number of years a newborn infant would live if prevailing patterns of mortality at the time of birth were to continue throughout the child's life.
Natural population growth	The birth rate less the death rate.
Neuropsychiatric conditions	Mental, neurological and substance-use disorders.
Population growth	(The birth rate less the death rate) + (immigration less emigration).
Standardized death rate (SDR)	The age-standardized death rate calculated using the direct method: that is, it represents what the crude rate would have been if the population had the same age distribution as the standard European population.

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