Country Highlights give an overview of the health and health-related situation in a given country and compare, where possible, its position in relation to other countries in the WHO European Region. The Highlights have been developed in collaboration with Member States for operational purposes and do not constitute a formal statistical publication. They are based on information provided by Member States and other sources as listed.

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AN OVERVIEW OF THE HEALTH SITUATION

Positive trends

Spanish women’s life expectancy at birth and at 65 years has been rising steadily and in 1991 they ranked fifth and fourth highest, respectively, among the 18 European reference countries.1

The standardized death rates (SDRs) for cardiovascular diseases (CVDs) for both sexes in the group aged 0–64 years, particularly for women, declined further during the 1980s so that the rates for all CVDs and ischaemic heart diseases remained some of the lowest among the reference countries in the early 1990s.

The mortality of women aged 0–64 years from all cancers and from cancer of the lung has been declining since 1970. In 1991, their SDRs for these causes were still the second lowest and the lowest, respectively, among the reference countries.

Maternal mortality also declined between 1980 and 1991 to one of the lowest levels among the reference countries.

Although the suicide rates of both sexes increased by about 50% during the 1980s, in the early 1990s Spanish men and women still ranked third lowest among the reference countries.

The consumption of alcoholic beverages, especially wine, has shown the second largest drop among the reference countries since 1980. This behavioural change is also reflected in a marked decline in male and female mortality from cirrhosis of the liver.

Negative trends

After a continuous increase, male life expectancy started levelling off in the early 1980s. Therefore, at the beginning of the 1990s male life expectancy at birth had dropped to the European Union (EU) average and at 65 years to the sixth highest among the reference countries (as against the third highest in 1980).

Spanish men are the only ones among the reference countries who have experienced almost no improvement as regards premature deaths. In 1980 they lost fewer years of life through death before the age of 65 years than the EU average, but in 1991 they ranked third highest in this respect.

The SDRs of men aged 0–64 years from all cancers and from cancer of the lung rose steadily over the preceding decades to reach the EU average at the beginning of the 1990s.

Mortality of women aged 0–64 years from breast and cervical cancer showed the largest increase among the EU countries since 1980, although in 1991 it was still lower than the EU average.

With an annual incidence of 19 new AIDS cases per 100 000 population in 1994, Spain had the highest rate among the reference countries.

Contrary to the trend in almost all the reference countries, in Spain the SDR for road traffic accidents rose after 1980 to third highest among the reference countries in the early 1990s.

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1 The 15 countries of the European Union (EU) plus Iceland, Norway and Switzerland.
Highlights on Health provide an overview of the health of a country’s population and the main factors related to it. Based on international comparisons, they present a summary assessment of what has been achieved so far and what could be improved in the future. In order to enlarge the basis of comparison beyond the EU, data for Iceland, Norway and Switzerland have also been included where available and relevant.

A special case of comparison is when each country is given a rank order. Although useful as summary measures, ranks can be misleading and should be interpreted with caution, especially if used alone, as they are sensitive to small differences in the value of an indicator. Also, when used to give an assessment of trends (e.g. the table at the start of the Health Status section), ranks can hide quite important changes within an individual country. Therefore bar charts (to show changes over a relatively short period) or line charts (to show time trends from 1970) have also been used. Line charts present the trends for all the 15 EU countries and their averages, although only the country referred to in a specific Highlight and the EU average are identified. This makes it possible to follow the country’s evolution in relation to that of other EU countries and to recognize how it performs in relation to observable clusters and/or the main trend.

In general, the average annual or 10-year percentage changes have been estimated on the basis of linear regression. This gives a clearer indication of the underlying changes than estimates based on the more simple and straightforward percentage change between two fixed points over a period. For mortality indicators, countries with small populations (e.g. Luxembourg or Iceland) can have fluctuating values, and in these cases three-year moving averages have been used. For maternal mortality, because the number of deaths is in general small, three-year moving averages have been calculated for all countries.

Where possible (and where relevant for trend comparisons), data for Germany up to 1990 refer to the Federal Republic within its current territorial boundaries.

To make the comparisons as valid as possible, data for each indicator have as a rule been taken from one common international source (e.g. WHO, OECD, International Labour Office) or from Eurostat (the Statistical Office of the European Communities) to ensure that they have been harmonized in a reasonably consistent way. It should also be noted that other factors (such as case ascertainment, recording and classification practices and culture and language) can influence the data at times. Unless otherwise mentioned, the source of the data used in the charts and tables is the WHO Regional Office for Europe’s HFA statistical database (June 1995, version with 1992 or 1993 data). The latest data available to WHO as of August 1996 are mentioned, as appropriate, in the text.
THE COUNTRY AND ITS PEOPLE

Spain is a parliamentary monarchy with a written constitution enacted on 29 December 1978. Legislative power is held by a bicameral parliament, consisting of the Congress of Deputies (Cámara Baja) with 300–400 members and a Senate (Cámara Alta) with 252 members all elected by universal suffrage. Executive power rests with the Prime Minister, who is elected by the Congress of Deputies, and the Cabinet.

There is an important regional tier of government in Spain stemming from the strong historical pressure for regional autonomy. The 17 autonomous communities enjoy a considerable level of independence with their own regional parliaments elected by universal suffrage and regional governments. In many matters these have legislative and executive powers.

There are two further levels of government: the 50 provinces and the municipalities. Each municipality has a municipal council elected by universal suffrage every four years.

Although Castillian is the official language, Basque, Catalan and Galician are official languages in their corresponding autonomous communities. In bilingual communities, both Spanish and the regional language are taught in schools and universities.

Spain has been a member of the European Union (EU) since 1986.

Demography

The population pyramid illustrates the changes in population structure between 1970 and 1992. The most striking feature is the decline in the younger age groups.
age group owing to lower fertility. Spain now has one of the lowest total fertility rates in the world: at 1.2, it was far below replacement level in 1994. At 0.13% the population growth rate is therefore very low and the lowest in the EU (Council of Europe 1995). As a result of this very low fertility, the percentage of the population under 15 years of age has fallen to 17%.

On the other hand, owing to increasing life expectancy the proportion of the population aged 65 years and over is rising steadily and now accounts for 15% of the population. Forecasts indicate that by 2015 the number of people aged 85 years and over is expected to rise from 1.4% to 2.1% of the population (Eurostat 1995a). This aging process is even more pronounced for women. Over the age of 45 years women increasingly outnumber men. In 1992, 68% of the population aged 85 years and over were women.

Household composition and family structure

In common with the other southern European countries, Spain still has a high average household size: 3.3 persons per private household (Eurostat 1995d). Some 55% of households comprise couples with dependent children. Fewer people live in single-person households (13%) than anywhere else in the EU (Eurostat 1995a). However, these households are likely to comprise elderly women. The health and wellbeing of elderly people living alone can be significantly affected by the financial resources available for help with housekeeping and personal hygiene. Social exclusion may also result in isolation, which can threaten mental health. These issues affect the costs and organization of health care.

Migrant population and ethnic profile

Immigrants from ethnic minorities can have specific patterns of disease and health needs because of genetic and behavioural factors and exposure to different environments in their countries of origin. Access to health care that can meet such specific needs or that is culturally and linguistically acceptable can also be difficult. Moreover, immigrants can be at a higher risk of living in relative poverty and being marginalized in their host countries, which can exacerbate their diseases. Illegal immigrants in particular can find it difficult to use health care, and follow-up to any care given can be problematic.

Official statistics show that roughly half a million foreigners live in Spain, including large numbers of retired people from other EU countries. During the 1980s there was also a strong upward trend in immigration from south of the Mediterranean (Council of Europe 1994b). However, this is very likely to be an underestimate: at the end of the 1980s an estimated 200 000–500 000 illegal immigrants

Demographic trends and structure

<table>
<thead>
<tr>
<th></th>
<th>1995a</th>
<th>2015b</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SPA</td>
<td>EU</td>
</tr>
<tr>
<td></td>
<td>1000s</td>
<td>%</td>
</tr>
<tr>
<td>Population</td>
<td>39 177</td>
<td>371 563</td>
</tr>
<tr>
<td>Urban population</td>
<td>76</td>
<td>78</td>
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<tr>
<td>Distribution by age:</td>
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<td></td>
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<tr>
<td>0–14 years</td>
<td>6 609</td>
<td>16.9</td>
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<tr>
<td>15–64 years</td>
<td>26 653</td>
<td>68.0</td>
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<tr>
<td>65+ years</td>
<td>5 916</td>
<td>15.1</td>
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<tr>
<td>85+ years</td>
<td>537</td>
<td>1.4</td>
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<tr>
<td>Total fertility rate</td>
<td>1.2</td>
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<tr>
<td>Dependency ratio</td>
<td>47.0</td>
<td>49.2</td>
</tr>
</tbody>
</table>

a As per 1st January 1995 (Eurostat 1996)
b Forecast, Eurostat intermediate scenario
c 1993 (UNDP 1996)
d 1994 (Council of Europe 1995)
were living in Spain (Commission of the European Communities 1991). This illustrates the extent of the structural and administrative challenges facing the southern European countries since the number of immigrants began to exceed the number of emigrants in the mid-1980s. Immigrants from ethnic minorities can have specific patterns of disease and health needs because of genetic and behavioural factors and exposure to different environments in their countries of origin. Access to health care that can meet such specific needs or that is culturally and linguistically acceptable can also be difficult. Moreover, immigrants can be at a higher risk of living in relative poverty and being marginalized in their host countries, which can exacerbate their diseases. Illegal immigrants in particular can find it difficult to use health care, and follow-up to any care given can be problematic.

**Education**

The relevance of educational attainment to health has been well documented. In Europe, where primary education is universal, the proportion of the population with more than a lower secondary education would be the appropriate indicator for educational achievement. A recent survey on education of the workforce in the former 12 EU countries (Eurostat 1995c) shows that the proportion of people with an upper secondary education or higher is still comparatively low among the group aged 25–59 years but rapidly increasing, as reflected by the fact that this proportion is considerably higher among younger people (aged 25–29 years), and that total expenditure on education has grown by a large amount in recent decades. Moreover, in Spain the enrolment ratio for education in the group aged 6–23 years is one of the highest within the EU, and there is no sign that women have less access to

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**Private households by type in EU (1990–1991)**

*Source: EUROSTAT 1995d*

**Percentage of people with at least secondary education (higher level), 1993**

*Source: EUROSTAT 1995c*
education. Indeed in the younger age group they perform better, with 28% of them obtaining a higher degree against 24% of men (Eurostat 1995c, UNDP 1995).

As women are increasingly employed outside the home and more children are growing up without siblings or (at least temporarily) with only one parent, the availability of preschool facilities is becoming more important for children’s social integration and mothers’ and children’s psychosocial wellbeing. Spain has one of the highest rates (over 70%) of children aged 3–5 years in pre-primary schools in the EU (Central Statistical Office 1992).

**Economy**

Spain has a mixed economy including both private and public sectors. A programme of privatization is under way. In 1992:

- the agricultural sector employed 10% of the workforce although it only accounted for 4% of GDP;
- industry employed 31% of the population and represented 34% of GDP; the Government fostered the development of heavy industries through the National Institute of Industry, which played an important role in the production of petroleum, steel, motor vehicles and other goods; there was an important wine and fruit-processing industry; some 35% of electricity was produced by nuclear power;
- services accounted for 62% of GDP, employing 59% of the population; with the population of the country doubling every summer tourism is important, but its seasonal nature and the probable large numbers of illegal immigrants working in this area mean that its impact on employment is unclear (Hunter

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**Basic economic data**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SPA</th>
<th>EU</th>
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<tr>
<td>GNP per head (US$,1992)</td>
<td>14,230</td>
<td>20,043</td>
</tr>
<tr>
<td>Real GDP per head (PPP US$,1992)</td>
<td>13,400</td>
<td>17,792</td>
</tr>
<tr>
<td>Income share of lowest 40%</td>
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<td>21.2</td>
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<td>households (%,1980–92)</td>
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</table>

*Source: UNDP 1995

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* EU unit of purchasing power parity (PPP)

*Source: EUROSTAT 1995a
Unemployment is one of Spain’s main social problems. In 1994, 23% of the workforce (45% of people aged under 25 years) were unemployed.

The number of women working is still low: in 1993, they represented only 34% of the workforce, the lowest percentage in the EU (Eurostat 1995a).

There is also a widespread underground economy involving an estimated 20% of the active population (Morin 1995), among them important numbers of the unemployed and especially illegal immigrants working in tourism and agriculture.

In 1992, Spain spent 22.5% of its GDP on social protection, most of it on old age, sickness and unemployment benefits (Eurostat 1995a).
HEALTH STATUS

A description of the population’s health status against the background of 18 European reference countries shows that Spain is above average for most of the key health indicators. However, in many cases the situation improved by a smaller amount than in most of the reference countries, resulting in a general downgrading in the country’s relative position since 1980.

- Life expectancy at birth grew only slightly – with the smallest increase among the reference countries for men – ending just above the EU average in 1991. As a result, the gap between female and male life expectancy also widened.
- Although the infant mortality rate declined considerably it remained slightly higher than the EU average.

Spain’s position as regards mortality from all cancers and from cancer of the lung in people aged 0–64 years has deteriorated, owing to an increase in male death rates. Female mortality from cervical and breast cancer in this age group also rose towards the average.

Mortality from external causes also increased, particularly road traffic accidents for which the standardized death rate (SDR) was the third highest among the reference countries in 1991.

In contrast, the position has improved with respect to maternal mortality and mortality from cerebrovascular diseases in the group aged 0–64 years and remained very good regarding SDRs for cardiovascular diseases (CVDs) in people aged 35 years and over and

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3 See footnote 1 on page 3.

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<tr>
<th>POSITION</th>
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<td>Life expectancy at birth (years)</td>
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<td>Male/female difference in life expectancy at birth (years)</td>
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<td>Infant mortality rate per 1000 live births</td>
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<td>Maternal death, all causes, per 100 000 live births</td>
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<td>SDR, cardiovascular diseases, age-group 0–64</td>
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<td>SDR, ischaemic heart disease, age-group 0–64</td>
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<td>SDR, cerebrovascular disease, age-group 0–64</td>
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<td>SDR, cancer, age-group 0–64</td>
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<td>SDR, trachea/bronchus/lung cancer, age-group 0–64</td>
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<td>SDR, cancer of the cervix, age-group 0–64, females</td>
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<td>SDR, cancer of the breast, age-group 0–64, females</td>
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<td>SDR, external causes of injury and poisoning</td>
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<td>SDR, motor vehicle traffic accidents</td>
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<td>SDR, suicide and self inflicted injury</td>
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Note: a) Lowest value observed among 18 European countries.
   b) Highest value observed among 18 European countries.
   c) 3 years moving averages.
   d) SDR: Standardized death rate.
ischaemic heart diseases in particular in people aged under 65 years.

Measures relating to the total population often hide important differences between segments of that population, for instance between men and women. In general, women have higher morbidity but lower death rates than men. As a result, women’s life expectancy at birth in Spain (80.7 years in 1991) is more than seven years longer than men’s (73.5 years) and this gap has increased by over a year over the last decade. Death rates and life expectancy also vary between the different autonomous communities (Ministry of Health and Consumer Affairs 1993).

According to the national health interview survey, in 1993 74% of the male and 63% of the female population aged over 15 years perceived their health as very good or good, 21% of men and 28% of women assessed their health as fair and the remaining 6% and 8%, respectively, as poor or very poor. Although people generally tend to perceive their health less positively with age, 39% of the population aged 75 years and over continued to assess their health as good (Ministry of Health and Consumer Affairs 1995). Compared to other European countries for which this information is available, both the population as a whole and elderly people in particular have average perceptions of their state of health.

### Life expectancy

Life expectancy at birth showed a steady upward trend for both sexes between 1970 and the early 1980s, when it rose less steeply for women and levelled off for men. As a result, in 1991 it was average for the EU, although women’s life expectancy was fifth highest among the reference countries. An almost average increase could be observed during the 1980s for female life expectancy at the age of 65 years, whereas that for men improved less.

A country’s position as regards life expectancy at the age of 65 years and loss in life expectancy due to premature death (i.e. deaths before the age of 65 years) gives some indication of the potential for improving overall life expectancy. In Spain in the
early 1970s, both sexes lost fewer years of life before the age of 65 years than the EU average. However, at the beginning of the 1990s this was only the case for women, while the figure for men was third highest in the reference countries.

Longevity raises the question of whether the quality of life in older age is satisfying or afflicted by a heavy burden of ill health. One of the methods used for answering this question refers to the prevalence of disability in each age group. Healthy life expectancy can be assessed by computing the average number of years that people have to live with a disability and deducting those years from their total (remaining) life expectancy. An analysis of the situation in Spain shows that at the age of 15 years the marked gap in life expectancy between women and men narrows from more than 6 to 1.5 years when disability-free life expectancy is considered, and disappears completely at the age of 65 years. Also, disability-free life expectancy or the average number of years people have to live with a disability vary markedly between the autonomous communities (Ministry of Health and Consumer Affairs 1993).

![Life expectancy at birth, males](image1.png)

![Life expectancy at birth, females](image2.png)
Main causes of death

Cancers are the most frequent cause of death under the age of 65 years, followed by CVDs. However, over all ages the situation is reversed and CVDs cause more deaths than cancers. A more detailed analysis of age-specific mortality patterns shows that the causes of up to 80% of all deaths in each age group can be classified in three main categories: accidental or other injuries (by far the main causes until the age of 35 years), cancers and CVDs.

A comparison between countries of death rates related to these causes can indicate how far the observed mortality might be reduced. As almost all causes underlying these deaths are influenced by collective and individual behaviour, a wide variety of health promotion and prevention measures can be applied to bring about changes that will reduce health risks and thus diseases and premature deaths.
These charts show age- and sex-specific death rates for the main causes of death in Spain in 1991. These rates are compared with the lowest corresponding rate observed in any country of the EU, which can thus be considered as a reference value potentially attainable by other countries. The sum of these minima, however, has to be considered as an artificial value which is sensitive to different national coding practices or coding errors. The dashed lines show the smallest overall SDR observed in any one EU country.
The most striking feature of Spanish age- and sex-specific death rates is the very high mortality of people aged 1–34 years compared to the lowest values observed in the EU.

- At 1–14 years, both boys and girls have the second highest age-specific overall mortality in the EU. For both sexes, the SDR for CVDs is the highest in the EU. The male SDRs for external causes, cancers, and the residual category of “all other causes” are the third highest among the EU countries, and the female SDRs for these causes are also above the EU average.

- At 15–34 years, the male overall death rate (the second highest in the EU) is over three times higher than the female, mainly due to accidents and, to a lesser extent, CVDs.

- At 35–64 years, overall mortality for women is the second lowest among the EU countries and for men it is just below the EU average. For both sexes, the SDR for CVDs is the second lowest among the EU countries, as is the female SDR for cancer. For men, mortality from both cancer and external causes is around the EU average.

- At 65 years and over, the total age-specific death rate is fourth lowest in the EU for both sexes. Male and female SDRs for CVDs and cancer are among the lowest in the EU, whereas SDRs for respiratory diseases are above the EU average and for diseases of the digestive system among the highest.

The analysis of age-specific mortality patterns shows that the highest potential for reducing mortality lies in improving the health of children and preventing accidents in younger men.

**Cardiovascular diseases**

The overall trend in SDRs for CVDs in the population aged 0–64 years has been falling since 1970 in western Europe. This downward trend was mirrored in Spain by men and has been even more pronounced in women. Thus, in the early 1990s Spain had one of the lowest rates of mortality for both sexes from CVDs in general and from ischaemic heart diseases in particular. The declining trend may be the result of changes in specific lifestyle patterns (nutrition, smoking) and the consequent prevalence of risk factors or of differences in the development of health care services (Banegas et al. 1995). The situation was worse as regards the SDRs for cerebrovascular diseases: at the beginning of the 1990s, male mortality was just above and female mortality below the EU averages. Although death rates for CVDs fell during the 1980s in all the autonomous communities, this trend was not uniform and quite substantial differences persisted between them at the end of the 1980s (Ministry of Health and Consumer Affairs 1993). However, among the younger age groups
Spain had higher SDRs for CVDs than the EU average. In the group aged 1–14 years, Spain had the highest SDRs among the reference countries for both sexes, and in the group aged 15–34 years, Spain had the highest SDR for males and the third highest for females. Although this requires more in-depth study, it seems that Spain has experienced particularly high CVD mortality in the younger age groups for several decades. The rate has subsequently gradually declined but it still affects the group aged 25–34 years. Similar patterns have been observed in Portugal.

**Cancer**

Cancer mortality in the population aged 0–64 years shows clear gender-specific trends and patterns.
Male death rates from all cancers and from cancer of the lung rose sharply from 1970 until the early 1990s. In the last ten years the increase in SDRs from both all cancers (10%) and cancer of the lung (37%) was the highest in the reference countries. Thirty per cent of all deaths in men under the age of 65 years are caused by cancer, almost one in three being cancer of the lung.

In contrast, women’s overall cancer mortality decreased steadily during the 1970s and early 1980s, as did the average of women aged 0–64 years in the EU countries. The same decreasing trend could be observed for female lung cancer mortality, whereas the EU average has been rising slowly but steadily since 1970. As a result, at the beginning of the 1990s women in Spain had the lowest SDR from cancer of the lung and the second lowest from all cancers among women in the reference countries. On the other hand, over the last ten years women in Spain had the highest increase among the EU countries in...
the SDR for cervical cancer and the second highest for cancer of the breast; the latter accounts for 30% of total female cancer mortality.

**External causes of death and injury**

This category covers all deaths that are not due to somatic deficiencies such as illness but mainly to accidents, (accidental) poisoning, violent acts (homicide) and suicide. The trend within the EU for mortality from these factors, and in particular from road traffic accidents, has been falling since 1970. In Spain, women’s SDRs from external causes were relatively stable over this period, while men’s went up markedly after years of relative stability until the early 1980s. Thus over the last ten years there was a 16% increase in mortality from all external causes for men, the highest among the reference countries. In contrast, women had the third lowest SDR in 1991, as against the lowest in 1980.
This situation, which is in contrast with improvements in most of the reference countries, is mainly due to mortality from motor vehicle traffic accidents, which in the male population increased by 30% and in the female by 20% between 1981 and 1991, the highest increases for both sexes among the other countries. While the risk of dying in a road traffic accident is the third highest among the reference countries (17.4 per 100 000 against an EU average of 13 in 1993), the risk of being injured in such an accident is somewhat lower (380 against 477 per 100 000) although it showed a marked increase between 1980 and 1990 (Eurostat 1995a). A reduction in mortality due to motor vehicle accidents seems possible if the appropriate measures are taken to improve the chances of survival after such an accident.

### Psychosocial and mental health

Although mental and psychosocial wellbeing are important aspects of health-related quality of life, too little information is generally available to allow a reliable description of this very important dimension of the population’s health. Suicide can be used as an indirect measure of mental disorder or lack of psychosocial wellbeing.

While women are more likely to attempt suicide, the rate of men actually committing suicide in Spain is more than three times higher than that of women (10.8 against 3.4 per 100 000). After a period of stability during the 1970s, the rates went up markedly at the beginning of the 1980s but seemed to level off by the end of that decade. While women and men had the second lowest SDRs for suicide in 1980, they ranked third and fourth lowest, respectively, in 1991 owing to increases of 58% and 50% over the preceding ten years. Although increases could be observed at all ages, they were particularly marked in men and women after the age of 65 years (Ministry of Health and Consumer Affairs 1993).

### AIDS

The acquired immunodeficiency syndrome (AIDS) is essentially a sexually transmitted disease which can also be transmitted through blood (through the transfusion of infected blood or blood products or the use of non-sterile injection equipment). There is a delay of about ten years or more between the initial infection with the human immunodeficiency virus (HIV) and development of the clinical illness of AIDS. The number of notified cases of AIDS is rising all over western and northern Europe, although annual rates of new cases are far higher in the south. Taking into account reporting delays, Spain had an incidence rate of 20 cases per 100 000 people in 1994, the highest rate among the reference countries.

By the end of March 1995 over 31 000 AIDS cases had been reported in the country. Forecasts predicted...
that 7000–9000 new cases per year could be expected in the mid-1990s (European Centre for the Epidemiological Monitoring of AIDS 1994 and 1995). In two thirds of all cases reported by the beginning of 1994 transmission was through injecting drug use (66%), followed by homo-/bisexual contact (15%) and heterosexual contact (9%), but the very long incubation period means that these figures do not necessarily reflect the actual extent of the epidemic or the currently prevailing modes of transmission. As no data about the incidence of infections are available, the prevalence of HIV-positive cases can only be estimated. According to recent estimates (European Centre for the Epidemiological Monitoring of AIDS 1994), there were 150 000 HIV-positive people in Spain at the end of 1993. A slight shift in the distribution of HIV cases as to the transmission mode is likely to have occurred, with the largest estimated increases among heterosexuals.
Disability

The prevalence of long-term illness and disability is an important criterion of a population’s health-related quality of life. However, such data are not generally available. A recent comparative study (Eurostat 1995b) estimated, on the basis of data from the 1986 national health survey, that 15.2% of the population suffered from disabilities that result in a handicap in social or socioeconomic terms. This is the highest proportion among the EU countries for which this information has been compiled and markedly above the EU average of 11.5%. However, together with Greece and the United Kingdom, Spain is one of the three countries to have a very low rate of people aged under 60 years receiving a disability pension, 2.9% compared to an average of 4.7% in the EU. The discrepancy can at least partly be explained by looking at how disability is distributed over age.

A comparison of the Spanish figures with the EU average by age group shows that differences become more prominent with age, particularly among older and very old people. The 1986 national health survey also showed that the prevalence of most types of disability, especially those related to the activities of daily living, rises drastically after the age of 45 years (Ministry of Health and Consumer Affairs 1993). The same holds true for the prevalence of long-term illness: while over 80% of the population aged up to 44 years are free from long-term illness, this is true of only 60% of people aged 45–64 years and some 40% of people aged 65 years and over (Ministry of Health and Consumer Affairs 1995).

A rather strong social gradient can be observed with respect to the frequency of both disability and long-term illnesses. Some 12% of people with university degrees or the second stage of secondary school have disabilities, but this proportion doubles among those with primary school education only (21%). The prevalence of long-term illness varies correspondingly between 20% in the first and almost 40% in the second group (Ministry of Health and Consumer Affairs 1995).

Health of children and adolescents

The first year of life is one of the most critical phases as regards mortality; only after the age of 55 years do death rates return to the same level as in the neonatal (during the first 28 days after birth) and postneonatal (from 28 days to 1 year after birth) periods. Decreasing on average by almost 35% over the last ten years, infant mortality rates have converged throughout the EU. The Spanish rate has fallen by more than 40% to 7.2 per 1000 live births, one of the largest improvements in the reference countries during this period although still above the EU average. Neonatal deaths comprise approximately two thirds of all infant deaths, occurring most often
in very low-birth-weight babies. In 1992, 5.0% of newborn babies weighed under 2500 g.

The sudden infant death syndrome is the main cause of death in the postneonatal period. Regional differences exist: in 1989 the highest infant mortality rate was recorded in the Canary Islands, the highest neonatal rate in La Rioja, and the highest postneonatal rate in Navarra (Ministry of Health and Consumer Affairs 1993).

The three major causes of death in the group aged 1-14 years are accidents, neoplasms and congenital anomalies. Spain has one of the higher accident death rates for boys, roughly 20% above the EU average. Mortality from cancer in boys is 20% higher and from disorders of the nervous system in girls 40% higher than the respective EU averages. Mortality due to congenital anomalies is almost 20% higher than the EU average.

In 1994, immunization coverage of children reached 88% for diphtheria, tetanus, pertussis and poliomyelitis and 90% for measles. The incidence of rubella peaked in 1991 with over 32,000 cases, a rate of 83 per 100,000 population. This rate dropped to fewer than 20 per 100,000 in the mid-1990s.

The reported number of decayed, missing or filled teeth (DMFT index) in 12-year-olds has more than doubled over the past ten years to the second highest index level in the EU. In 1990, the DMFT index was 4.1, 25% higher than the EU average. Improvements in oral health will contribute positively to long-term benefits for general health, particularly for the functioning of the digestive system.

Adolescence is characterized by efforts to take on adult roles. This transition involves experimentation and imitation, which can make young people vulnerable to damage to their health. Acute health problems can result from accidents, experiments with drugs, unsafe sex or unwanted pregnancies. In the longer run, the adoption of specific lifestyle patterns

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**Live births per 1000 women aged 15–19**

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<thead>
<tr>
<th>Country</th>
<th>1980</th>
<th>1992</th>
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<td>United Kingdom</td>
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<td>Switzerland</td>
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Source: Council of Europe 1995
can lead to chronic degenerative diseases. This is also the phase when social insecurity can be compounded by, for example, unemployment. In 1994, the unemployment rate among people aged under 25 years in Spain (45%) was more than twice the rate of those aged 25 and over (20%), and about twice the EU average (Eurostat 1995a).

One of the few routinely available indicators of adolescents’ sexual health and behaviour is the frequency of teenage pregnancies, which can reflect social factors as well as access to and use of contraceptive methods. The number of births to young women aged 15–19 years has been falling in almost all the reference countries since 1980. In 1992, the fertility rate in Spain for this age group, 10.3 per 1000, was still nearly double the lowest rate observed in the reference countries.

**Women’s health**

After age, the second strongest correlate of mortality is gender. Women generally live longer than men and have lower mortality rates for all causes of death in the EU. However, women have higher reported rates of morbidity and utilization of health care services (especially around childbirth), and can be indirectly more affected by population and other social welfare policies.

The range of female mortality levels varies greatly: women in Spain enjoyed a higher life expectancy both at birth and at 65 years than the EU average in the early 1990s. Specifically, death rates for the main causes of mortality for women aged under 65 years (all CVDs, cerebrovascular diseases, ischaemic heart diseases and cancers) are lower than the EU average. Mortality from ischaemic heart diseases and cancers is the second lowest among the reference countries, and mortality from cervical and breast cancer is below the EU average even though mortality from breast cancer has increased by almost 25% over the past ten years. Breast cancer is the most common female cancer, representing 58% of all new cancer cases found in women recorded in the Zaragoza cancer registry (Martos Jiménez et al. 1992). However, significant increases in female mortality since 1975 from cancer of the ovaries, colon and pancreas, melanoma and non-Hodgkin’s lymphoma have also been reported (Sánchez et al. 1994). Female lung cancer mortality is the lowest among the reference countries, and the Spanish rate is one of the few to decrease (by approximately 5%) over the past ten years. Reported mortality from suicide has shown the largest increase among women in the reference countries, nearly 60% since 1980, although the Spanish rate is still one of the lowest.

A focus on preventable deaths as well as improvements in breast cancer screening will lead to improvements in women’s health. The highest prevalence of breast cancer has been found in the Canary Islands, followed by Catalonia and the Balearic Islands (Ministry of Health and Consumer Affairs 1993). A comparative study in several EU countries has shown that the cost of breast cancer screening was highest in Spain. Coverage, cost of the examination and the organization of screening may be reviewed with the goal of detecting more cases at earlier stages so as to improve women’s health and chances of survival (van Ineveld et al. 1993).

At an average of 3.9 maternal deaths per 100 000 live births and per year between 1989 and 1991, maternal mortality was one of the lowest recorded among the reference countries and almost one third of the rate in 1980. Although contraception was legalized in Spain much later than in other EU countries, it is widely available (as is abortion). A recent report noted that the highest use of modern contraceptive methods is in Catalonia, followed by Andalucia, Madrid and Valencia (Iglesias 1993). The reported frequency of abortions has increased during the last decade. In 1990, the ratio of abortions to
1000 live births was 93, more than twice the rate reported in 1987.

Sexually transmitted diseases (STDs) are more difficult to diagnose in women (many STDs occur without recognizable symptoms in women) and they suffer more severe sequelae than men (Fathalla 1994). While the occurrence of traditional STDs (gonorrhoea, syphilis and chancroid) has declined, new bacterial and viral syndromes associated with Chlamydia trachomatis, the human herpes virus, the human papilloma virus (HPV) and HIV have become prominent in western Europe. These agents are often more difficult to identify, treat and control and can cause serious complications often resulting in chronic ill health, disability, infertility or death. The incidence of syphilis and gonorrhoea increased during the mid-1980s and then decreased again by 1991 (Ministry of Health and Consumer Affairs 1993). The Spanish Programme on Integrated Care for Women, which is specifically designed to address women’s health...
needs, includes contraception, STD testing, pregnancy monitoring, early diagnosis of gynaecological cancer and information about the menopause (Iglesias 1993).

Other female health problems are not limited to women’s reproductive function or reproductive age. The cessation of ovarian function at menopause puts women at special risks, notably of osteoporosis due to bone loss. Osteoporosis-related morbidity, including pain, loss of mobility, periodontal disease and tooth loss, and fractures of the hip, vertebrae and wrist, is affecting increasing numbers of people, in particular women (von Wowern et al. 1994). In western Europe hip fractures are common in elderly people, affecting one in four women up to the age of 90 years, twice the rate for men (Armstrong/Wallace 1994).

Violence against women has in general received limited attention as a public health issue. Data on the occurrence and type of such violence are lacking but female mortality due to homicide and deliberate injury has increased by almost 30% in Spain over the past decade. Recent World Bank estimates indicate that in established market economies gender-based victimization is responsible for one out of every five healthy days of life lost to women of reproductive age (Heise 1994).
LIFESTYLE

Among the wide variety of factors influencing health (genetic disposition, the physical and social environment, etc.), behaviour has a major impact on each individual’s and the population’s health and wellbeing. Lifestyle patterns such as nutritional habits, (lack of) physical activity, smoking and heavy drinking of alcohol play an important role in premature mortality, mainly from CVDs and cancers. These diseases alone are responsible for the largest share of deaths under the age of 65 years in Spain. Unhealthy behaviour also contributes to a wide range of chronic illnesses and thus affects the quality of life, particularly in older age. Lifestyle, however, is also influenced by collective behavioural patterns, common to a person’s social group, and by the more general socioeconomic conditions. In most European countries, improvements in lifestyles have largely been confined to the more socially and economically privileged middle classes, who are better placed to live healthy lives (WHO 1993).

Somatic risk factors

The extent to which lifestyle is likely to influence morbidity and mortality in a population can be approximated by the prevalence of well known medical risk factors such as raised blood pressure, high cholesterol level or overweight. These are some of the most common determinants associated with CVDs.

Overweight and obesity are commonly assessed with the body mass index (BMI), calculated as weight (kg) divided by height (m)². Taking obesity as a BMI greater than 30, the national health survey showed that in 1987 the prevalence of obesity in the Spanish population aged 20 years and over was 7.3% for men and 8.4% for women. For people aged 55–74 years, the prevalence of obesity amounts to 11% of men and 17% of women. People who have completed secondary school are half as likely to be obese as those who have not (Ministry of Health and Consumer Affairs 1993). There are also substantial regional variations as regards people who are overweight.

Physical activity

As physical activity in daily life and at work has declined, exercise in leisure time has become more important in order to maintain an activity level beneficial to health. According to data from the 1993 health interview survey, about half of the male and one third of the female population over the age of 18 years report taking regular or intensive physical activity during their leisure time. Regular activity declines rapidly with age from 29% among people aged 18–24 years to 14% among those aged 25–44.
years; after 45 years only 5% are regularly active and two out of three people undertake no physical activity at all (Ministry of Health and Consumer Affairs 1995).

Nutrition

Nutritional habits are deeply rooted in cultural traditions and agricultural production. Nevertheless, in recent decades changes have occurred as food markets have opened up, transport has become more rapid and new and efficient techniques of food conservation have been developed. As a result the highly different nutrition patterns of northern and southern Europe are tending to converge, with Spain following the southern trends typically referred to as the Mediterranean diet, which is particularly low in saturated fatty acids. Although the average proportion of energy derived from fat has increased over the past decade, the consumption of animal fats is still very low and markedly below the level of the Mediterranean diet.

Alcohol consumption

In the EU as a whole, the consumption of alcoholic beverages has steadily declined since 1980 following an increase in the 1970s. In Spain, the consumption of wine fell by almost half between 1980 and 1991, from some 65 litres annually to less than 40 litres per head of the population, while beer drinking increased by 33% (Produktschap voor Gedistilleerde Dranken 1994). This development mirrors a general trend towards “homogenization” of drinking patterns and diversification of beverages – through substitution of traditional beverages by new and imported ones – across Europe. In 1990, the total consumption of alcoholic beverages in Spain measured by pure alcohol intake was 10.8 litres per person compared to 13.6 litres in 1980, reflecting one of the sharpest decreases (over 25%) among the reference countries.

Although the death rates from cirrhosis and other liver diseases are higher than the EU average, they have decreased over the past decade by 17% for women and 19% for men. In 1987, the estimated proportion of very heavy drinkers was 7.3% for men and 0.6% for women nationwide, but these proportions varied between the autonomous

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Source: FAO/WHO, Nutrition PC database

\* Denmark, Finland, Iceland, Norway, Sweden.

\*\* Greece, Italy, Portugal, Spain.
communities. There are more heavy drinkers among men in Extremadura, Cantabria, La Rioja, País Vasco, Galicia and Castilla—La Mancha and among women in the Balearic Islands, País Vasco and La Rioja (Ministry of Health and Consumer Affairs 1993).

**Tobacco consumption**

Cigarette consumption per head in the population aged 15 years and over remained fairly constant between 1985 and 1992. Spain is the only country in the EU where overall consumption is not declining, even though a slight decrease was noted in 1993 to 2312 units per head. Sales figures probably underestimate consumer behaviour, as smuggled cigarettes are estimated to represent 10% of the market (BASP 1994). The prevalence of smoking declined from 65% in 1978 to 48% in 1993 for men but increased from 17% to 25%, respectively, for women (BASP 1994). A decrease was also observed between 1980 and 1993 in the proportion of 15–17-year-olds smoking. However, in 1990 Spain had the highest rate of male and the third highest rate of female adolescents smoking cigarettes every day in all the EU countries. Between the ages of 14 and 15 years, the prevalence of daily smoking increases fivefold for boys to 15% and quadruples for girls to 11% (Van Reek/Adriaanse 1995).

Tobacco-related deaths in 1990 were estimated to be over 42 000, mostly men given the extremely low prevalence of women smokers during the 1960s and the delay of three or four decades between smoking and its related mortality (BASP 1994). Although the mortality rate due to lung and other tobacco-related cancers is below the EU average, over the past decade it has increased by 37% for men but decreased by 5% for women.

**Illicit drug use**

Cannabis remains the most commonly used illicit drug among younger people, although a decreasing trend in its use is noted since the 1980s. Some 100 000–120 000 individuals are estimated to be addicted to hard illicit drugs. Deaths directly related to drug overdoses more than doubled between 1987 and 1991 to 579 reported fatalities (88% men and 12% women), with both the greatest increase and highest absolute numbers in Barcelona and Madrid.
(Ministry of Health and Consumer Affairs 1993). The primary cause of death for most people with drug addictions is not overdose but suicide, traffic accidents and infectious diseases such as hepatitis C and B and HIV, due to the use of contaminated syringes. Intravenous drug users make up two thirds of AIDS cases reported up to March 1995 (WHO 1995).

In 1992, close to 39 000 people were admitted to
therapy for abuse of heroin, other opiates or cocaine, a significant increase over the previous years. Between 1987 and 1991 the mean age at first use of opiates or cocaine of people entering drug treatment centres rose slightly to 20.3 years and their mean age at admission to 26.5 years (Ministry of Health and Consumer Affairs 1993). Heroin abuse continues to represent over 96% of drug addictions treated, although treatment for cocaine abuse almost doubled during the same period. In Barcelona alone, first admissions to drug treatment centres increased by almost 75% between 1991 and 1992 (Council of Europe 1994a). Much of the increase in those benefiting from treatment in recent years can be attributed to the expanding number of treatment centres (WHO 1995).

In 1988, the proportions of adolescents aged 14–19 years attending school who had tried illicit substances were:

- 20.6% of boys and 13.9% of girls for cannabis
- 3.3% of boys and 0.6% of girls for pills
- 1.4% of boys and 0.8% of girls for cocaine
- 0.3% of boys and 0.1% of girls for heroin
- 0.8% of boys and 0.2% of girls for inhalants (Ministry of Health and Consumer Affairs 1993).

The mean age at first use of these substances was around 16 years. In Catalonia in 1990, 12.5% of the people aged 15–64 years had tried cannabis, 2.8% reporting that they had done so within 30 days of the survey. Successive surveys in Catalonia between 1982 and 1990 indicated a large drop in the consumption of amphetamines and hallucinogens, particularly among young people (WHO 1995).
ENVIRONMENT AND HEALTH

Environmental conditions affect humans through acute, short-term and long-term exposure to noxious factors. In the long run the main concern is to promote sustainable development compatible with good health and, in particular, to preserve the food chain (water, agricultural production) from contamination by hazardous substances. Short-term environmental protection means avoiding or at least reducing potentially harmful situations, bearing in mind that people are not exposed equally to adverse environmental conditions and not all people and social groups are equally vulnerable to them. Thus, children, pregnant women, and elderly or ill people are more likely to be affected by polluted air or contaminated food. Also, adverse environmental conditions tend to accumulate for specific segments of the population. Low income, for instance, is often associated with exposure to environmental hazards at work (noxious substances, risk of accidents) and poor housing conditions (crowding, air pollution, noise, etc.). These situations may affect health and wellbeing either directly or indirectly by causing discomfort and stress, giving rise to unhealthy coping behaviour such as the use of medical drugs or heavy drinking.

Air quality

So far, air pollution does not seem to be of major concern in Spain, given the low - albeit slightly increasing - level of carbon dioxide emissions from fossil fuels in 1991. This conclusion is corroborated by the very small proportion of stations in the national air pollution surveillance system where concentrations of suspended particulates and sulfur dioxide (the only pollutants exhaustively monitored) exceeded the European limit values during the observation period 1990–1991 (Ministry of Health and Consumer Affairs 1993, 1994). However, in 1985 (the latest year for which these data are available in Spain) the level of sulfur dioxide emissions per head of the population was one of the highest in the EU, while nitrogen oxides emissions were below the average (Eurostat 1994).

Water and sanitation

In 1991, less than 2% of the population (1.3% of all households) were not connected to a water supply system (Ministry of Health and Consumer Affairs 1993, 1994). The highest proportions of households without running water were found in the Balearic Islands (6%) and Galicia (3%). Some 85% of the water supply comes from surface water, the remaining 15% from groundwater. In 1990, 54% of
the population were served by a sewage treatment plant (Eurostat 1994: 349), whereas countrywide some 3% of households lack even a sewage disposal system.

The quality of bathing water is monitored by a national surveillance network, which in 1991 qualified the seawater at 87% of the sampling points as suitable for bathing. Recreational fresh water conformed to national standards at 71% of the sampling points where an assessment was possible (Ministry of Health and Consumer Affairs 1993).

Waste

Increasing quantities of waste are being generated in almost all countries, with serious implications for health from the resulting pollution of the air, water and soil. The average amount of municipal waste generated in the EU during the 1980s went up by 20% to reach 350 kg per head in 1990. This trend was duplicated in Spain, where the figure reached 320 kg per head. In the early 1990s over 50% of paper and cardboard used each year were recovered, the highest proportion among the reference countries, and 27% of glass was recycled against a maximum of over 60% in other countries (Eurostat 1995d).

Housing

Housing conditions generally have an impact on people’s health and wellbeing, but the health situation of homeless people is particularly critical: they often suffer from health problems typically associated with poverty (malnutrition, infectious diseases, psychosocial stress caused by solitude and insecurity, etc.), and they may be more vulnerable to health problems than the rest of the population owing to traumatic events or personality traits which may play a part in their becoming homeless. In Spain it was estimated in the early 1990s that 8000 people were homeless on any one day of the year or 11 000 over the course of a year, i.e. 3 per 10 000 population, the lowest rate in the EU. However, a survey of people who had been admitted into shelters between 1988 and 1990 and some other studies estimate the annual average number of vagrants and people in emergency accommodation to be 40 000–45 000 (Avramov 1995).

In 1985 some 8% of households had no inside toilet (Avramov 1995) and in 1990 13% were still lacking a hot water system (Ministry of Health and Consumer Affairs 1993).

Increasing urbanization and road and air traffic has brought to the fore the issue of noise and its effects on health. The situation is particularly threatening for the urban population in Spain since in 1991 almost one in five people living in cities (18%) found
the noise level at home unbearable and an additional 43% of the urban population were seriously disturbed.

Safety at home and during leisure-time activities, sports and so on is not well documented. No data are available about the incidence of such accidents and their health consequences, but a study in the EU countries comparing cases treated by health care services between 1990 and 1992 showed that the risk to both sexes over the age of five years of being involved in a transport-related accident is particularly high in Spain, where such accidents are up to three times more frequent than the EU average (EHLASS 1995).

**Occupational health and safety**

Exposure to health risks at the workplace is still an important cause of ill health and death. However, information about exposure in terms of type, frequency, intensity of hazardous conditions and the number of workplaces or people affected is scarce. The incidence rates of recognized occupational diseases attracting disablement benefit awards provide an estimate of risk levels, although such figures are generally lower than the actual number of cases. Usually, only a small proportion of reported cases are recognized, although delays between reporting and recognition may be considerable.

Death rates in Spain for occupational accidents are among the highest. In 1993, 1116 people were killed in a work-related accident (2.9 per 100 000 population) and almost 540 000 people (1374 per 100 000) were injured. Both rates had increased by over 10% in the preceding ten years.
HEALTH SYSTEM

Institutional structures and resources

Health care in Spain is regulated by the General Health Law of 1986 corresponding to article 43 of the Spanish Constitution which recognizes the right of all citizens to the protection of their health (10% of the population did not receive such protection before 1986). Under this law different public institutions and agencies are being integrated in a national health system (Sistema Nacional de Salud, or SNS) whose basic characteristics are universal coverage, devolution to the regions, community participation, public funding, and organization of health care at primary, secondary and tertiary care levels.

The National Institute of Health (INSALUD) is a governmental organization responsible for managing almost all publicly run health care institutions in 10 of the 17 regions, covering 42% of the population. In the remaining seven regions, health care has been largely decentralized and the regional governments have created their own bodies to manage health services in their areas.

The public health care system is currently financed by general taxation (80%) and specific social security contributions (20%). Apart from pharmaceuticals (for which patients pay 40% of the bill) and dental care, there is no cost-sharing in the public sector of the health care system. Approximately 17% of the population is estimated to have some private insurance coverage. Civil servants are covered by a statutory scheme which allows them to choose between the SNS and private providers, which might have some implications for equity (Bengoa 1992, OECD 1992).

Primary health care

General practitioners

Spaniards may choose a general practitioner (GP) among those working in the area where they, as users, are registered. Usually, all doctors working in a given geographical area use the same primary health care centres or polyclinics. Health care centres are also staffed by paediatricians, nurses and sometimes by dentists and social workers. Polyclinics also provide specialist services such as cardiology and orthopaedics. Paediatricians have always been considered as primary care professionals in Spain and cater for all the population aged under 14 years. Care is free at the point of delivery. GPs, who are mainly salaried, act as gatekeepers to the rest of the public health care system. A private sector used mainly by higher income groups exists alongside the public scheme. Doctors have their own practices and are paid on a fee-for-service basis. This is not covered by the SNS.

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<th>Health personnel per 1000 population</th>
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<td><strong>SPA</strong></td>
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<tr>
<td>Physicians</td>
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<tr>
<td>Dentists</td>
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<td>Nurses</td>
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* Or latest available year
Source: OECD 1995
Primary dental care
Dental care is provided in polyclinics, but most dental services are provided in private practices and not reimbursed by the SNS.

Primary health care nurses
Nurses have been integrated into primary health care teams supplying nursing care to individuals, families and the community through programmes for children and adolescents, adults, the elderly and groups at risk. Nursing clinics have also been established, representing one of the most independent areas of the nursing profession, in close collaboration with doctors and other health professionals. From these clinics, nurses check up on and follow up chronic patients and people at risk, giving them support and adequate training in looking after themselves and the appropriate use of the health services.

Primary care nurses make home visits and provide nursing care to chronically ill patients as well as to those discharged from hospital but still requiring assistance. They also look after cases of mental illness both at the acute and follow-up stages in patients’ homes or at the clinics.

Community pharmacists
Pharmaceuticals are provided by independent pharmacies. Patients pay 40% of the prescription, apart from pensioners, who are exempt.

Hospital care
Access to hospital is dependent on referral by a GP although many people go to casualty departments to avoid the long waiting lists. Spain has a lower number of hospital beds (4.4 per 1000 population in 1992) than most other European countries.

There is no competition between hospitals since patients are not free to choose their hospital. GPs are supposed to refer their patients to predetermined secondary care centres. This can be challenged in many ways: GPs can refer their patients to other hospitals (in which case the GP’s decision can be challenged by a medical officer) or they can advise their patients to go to the casualty department of the preferred hospital. The trend is now to leave more freedom of choice to the GP.

Public sector hospitals are managed either by
• INSALUD (in ten regions),
• regional governments in (seven) regions with developed hospital services, or
• provincial or municipal authorities, mainly for long-stay institutions.

The private sector comprises both for-profit and non-profit hospitals. The latter are mainly run by religious foundations and geared to long-term care.

Long-stay hospitals, particularly for the care of elderly people, are scarce and pensioners or permanently disabled people in residential care have to pay 80% of their pension (Garcia-Barbero/Goicoechea 1997).

Private sector
The private sector has been encouraged by the Government as a form of competition (Berthod-Wurms 1994). It is used mainly by higher income groups, since statutory coverage provided by the SNS means that people opting for private insurance are in fact paying twice for their health care. There are two types of private insurance:
• where care is provided free at the point of delivery, the care provider being paid directly by the insurer under contract;
• where the provider of care is paid by the patient who is then reimbursed by the insurer.

Health expenditure
International comparisons of health care indicators are extremely difficult because the definitions underlying health statistics as well as accounting practices vary from one country to another. A recent comprehensive study (Schneider et al. 1995) tried to improve comparability by presenting a set of indicators based on adjusted national data. According to this study, Spain spent 7.3% of its GDP on health care, whereas OECD estimated this to be 6.5% (OECD 1995). Between 1980 and 1992 the proportion of GDP spent on total health expenditure increased only moderately, as did the proportions spent on hospital care, ambulatory medical care, nursing and dental care. Only the proportion spent on medication was above the EU average in 1992, although the increase was smaller than the average increase in the EU.
A breakdown of total health expenditure by services and goods provided also reveals that Spain spends relatively more of its health budget on hospital care and less on nursing care than other EU countries do, which is consistent with the apparent lack of facilities for long-term care of the elderly and permanently disabled people. More intriguing is the large share of health expenditure spent on pharmaceuticals in a country where 40% of each prescription is paid by the patient.
Health care reforms

Since the mid-1980s Spain has embarked on a comprehensive reform of the health care system, brought about by a crisis of finances, rationalization and legitimacy. The old health care system had become too expensive, had failed to adapt to the new needs and challenges and was not fulfilling the population’s expectations (Elola Somoza 1991).

Prior to the reform, 83% of the population was covered under INSALUD and another 7% was covered by the statutory scheme for civil servants and the armed forces, leaving 10% without health care insurance. Universal coverage was instituted during the 1980s.

The reform of primary health care has been the cornerstone of the health reform. Following WHO recommendations, the primary health care system is being developed as a strategy to rationalize health care. Reforms in hospitals which aimed to increase efficiency through better management and the development of ambulatory care so as to reduce the length of stay have been of limited success.

The General Health Law of 1986 created a national system (on a Beveridge model) which involves:

- the decentralization of INSALUD to all the autonomous regions with a view to creating 17 regional health systems within the national system;
- the incorporation of provincial, municipal and social security health services in an integrated network;
- legislation for the primary health care reforms started in 1984;
- the setting-up of supraregional health councils with the aim of coordinating policy and planning between the different regional health services (OECD 1992).

So far the process is nearly complete in only seven autonomous communities and it is therefore difficult to assess the success of the reform.

The Government is also encouraging the private health care sector (the General Law gave commercial freedom to private clinics and hospitals, and insurance premiums entitle the payer to a tax rebate) but equity appears to be an issue since most people opting for the private sector do so in order to jump waiting-lists, and the statutory health insurance scheme does not cover private care (Berthod-Wurmser 1994). The benefits packages, which were to be provided by the national health system, were established in 1995 (WHO 1996).
**Related initiatives**

In 1990, a parliamentary commission was set up to review the health service. Its report in 1991 led to significant and extensive debate and resulted in some reforms subsequently being implemented. The report envisaged that the health services should continue to be financed mainly by taxation without a reduction in the role of social security contributions in financing. It also argued that charges for drugs and hospital emergency services should be increased to control trivial demand.

The report recommended, among other things, that the financial arrangements within the service should be organized along the lines of the British reform. The main similarity was that health areas should contract services from the public and private sectors. Their role was to be one of purchasers rather than providers, buying on the basis of prices, quality and patient satisfaction. In Spain this was to be applied to primary care as well as secondary care. Moreover all the public health units contracted would become autonomous enterprises. While conditions of service for existing staff would remain (with some modifications), there would be complete freedom for the health areas to pay new staff on a different basis. Any profits earned from contracts could be used towards extra remuneration to staff.

The report also envisaged that there would be a clear definition of basic services and an explicit decision to add any further services. All forms of new technology would be assessed for their technical and economic efficiency. If it were decided not to include the new services, patients would have to pay for them.

Although the Abril report was not explicitly accepted by the Government, INSALUD adopted some of the underlying ideas in 1992, such as linking activities with resource allocations, although public hospitals have not been made autonomous. Catalonia and the Basque Country, however, started to act on the report in 1993 by taking steps to create competition (a provider market):

- by separating the purchasing and provision of care,
- by trying to improve management and the information system in the public sector,
- by giving more autonomy to hospitals and primary health care centres, and
- by trying to introduce more flexible performance-related contracts for health service employees.

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4 This Commission was chaired by Vice-President Abril-Martorell of the Government of Prime Minister Adolfo Suárez.
REFERENCES


COUNCIL OF EUROPE. Papers from the Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group) (1994a), including:


REFERENCES


EUROSTAT. Eurostat yearbook ’95. Luxembourg, Office for Official Publications of the European Communities, 1995d.


MINISTRY OF HEALTH AND CONSUMER AFFAIRS. Spain’s report to the WHO Regional Office for Europe on the 1994 health for all monitoring exercise (unpublished, 1994).


MORIN, J. El trabajo clandestino se convierte en el motor principal de la economía sumergida en Europa [Clandestine work is becoming the principal driving force of the black economy in Europe]. Fuentes estadísticas, 7 (1995).


REFERENCES


**WHO.** *Drug use and related issues: Spain*. Copenhagen, WHO Regional Office for Europe (unedited draft), 1995.

**WHO.** *Health care systems in transition – Spain*. Copenhagen, WHO Regional Office for Europe, 1996.
Cardiovascular diseases (CVDs): all diseases of the circulatory system, including coronary heart disease and cerebrovascular diseases.

Dependency ratio: The ratio of the population defined as dependent (those under 15 and those over 64 years of life) to the working-age population, aged 15-64 years.

Incidence rate: the number of new cases of a disease occurring in a population during a specified period (usually a year) per 100,000 of that population.

Infant mortality rate (IMR): the yearly number of deaths of children aged less than one year per 1000 live births.

Life expectancy at birth: An estimate of the average number of years a newborn can expect to live provided that the prevailing age-specific patterns of mortality at the time of birth were to stay the same throughout the child’s life.

Loss of life expectancy due to deaths before the age of 65 years: describes the effect of premature death on life expectancy, and it measures the potential number of years that could be added to life expectancy at birth if all deaths before the age of 65 were eliminated.

Prevalence rate: the total number of people in a population who have a disease or any other attribute at a given time or during a specified period per 100,000 of that population.

Purchasing power parity (PPP): a “standardized” measure of the purchasing power of a country’s currency, based on a comparison of the number of units of that currency required to purchase the same representative basket of goods and services in a reference country and its currency (usually US$). The EU unit of PPP is PPS (purchasing power standard).

Standardized death rate (SDR): a death rate (usually per 100,000 population) adjusted to the age structure of a standard European population.

Total fertility rate (TFR): the average number of children that would be born alive per woman during her lifetime, if she were to bear children at each age in accord with prevailing age-specific birth rates.