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

During the 1980s there was a greater reduction in premature mortality in Ireland than in most of the 18 European reference countries.\(^1\) For men, this resulted in Ireland having a better position in 1992 than the European Union (EU) average with respect to loss of life expectancy due to deaths before the age of 65.

The standardized death rate (SDR) for cerebrovascular disease, which was below the EU average for both sexes in 1992, had shown the second largest decrease among the reference countries over the ten years preceding that date.

Mortality from all cancers and especially from cancer of the lung in the male population aged 0–64 years dropped substantially between 1980 and 1992. Both these rates are now below the EU average.

Mortality from all external causes (mainly accidental and violent deaths) decreased markedly over the decade up to 1992 to fourth lowest among the reference countries for both sexes.

Negative trends

Despite a steady improvement, life expectancy at birth remained the third lowest among the reference countries and the lowest at 65 years for both sexes.

The SDR for people aged 0–64 years for all cardiovascular diseases was the highest among the reference countries for women and the second highest for men. The rate for mortality from ischaemic heart disease alone was the highest in 1992 for both sexes. However, the rates for both diseases have declined more than the rates in most of the reference countries since 1980.

Similarly, although death rates for all cancers and cancer of the lung in women aged 0–64 years decreased during the decade up to 1992, mortality from these causes remained among the highest of the reference countries in that year. Furthermore, the SDRs for breast and cervical cancer in women of this age group remained fairly stable at one of the highest levels.

The male suicide rate has been rising continuously since the early 1970s with an increase in the death rate of over 50% during the ten years to 1992. This rate is now at the EU average, while the female rate remains one of the lowest among the reference countries.

\(^1\) 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

Ireland is a democratic republic with a written constitution which came into force on 29 December 1937. The head of state is the President whose role is largely consultative but who has the power to refer legislation that might violate the constitution to the Supreme Court.

The bicameral Parliament consists of a House of Representatives, with members elected by direct universal suffrage, and a Senate whose members are elected by limited suffrage or are nominated by the Prime Minister or the universities.

Local government is composed of 29 county councils, five county borough corporations, five borough corporations and some smaller entities. All members of these authorities are elected by universal suffrage under a proportional representation system. Because of the small size of their administrative areas, the functions carried out by the smaller authorities have tended to become increasingly limited and the county councils are now responsible for the most important functions.

Irish is the first official language. English is recognized as a second official language.

Ireland joined the European Union (EU) in 1973.²

² These introductory paragraphs are based on material from the Statesman’s Year–Book (Hunter 1994, 1995)
Demography

The population pyramid illustrates the changes in population structure between 1970 and 1992. The most striking feature is the increase in the number of people aged 10–49 years, reflecting the postwar baby boom and above-average fertility. Despite a fairly high rate of emigration, the total population increased by 20% from 2.9 million in 1970 to 3.5 million in 1992.

Total fertility rates in Ireland have been declining for several decades, falling below replacement level for the first time in 1991 (Department of Health 1994d), and at 1.84 in 1994 are beginning now to approach the levels in many other European countries. This trend, together with continuing emigration, resulted in the (provisional) population growth rate going down to 0.22%, one of the lowest in the EU (Council of Europe 1995). Despite a population structure with large cohorts in the reproductive age groups, numbers of young children continue to decrease.

As a consequence of higher fertility in the past, Ireland still has a young population structure and the proportion of young people below the age of 15 years (25%) is the highest in the EU. Given expected trends in fertility rates, this percentage is likely to fall to around 20% by 2015.

In contrast, the proportion of the population aged 65 years and over is set to rise steadily in coming years. In the short to medium term (i.e. 10–20 years), the most significant change will be in the numbers of people surviving into very old age. The growing disparity in life expectancy between men and women means that the great majority of very elderly people will be female. Currently, 70% of the population aged 85 years and over are women, and this will rise to 72% by 2006 (CSO 1995).

In 1992 there were nearly 95 000 foreigners, including 60 800 United Kingdom citizens, in Ireland (Council of Europe 1995).

Household composition and family structure

Historically low marriage rates taken together with a rising proportion of births outside marriage (20% in 1993) give an indication of the considerable underlying changes in household size and family structure (Eurostat 1995d).

With an average 3.3 persons, household size in Ireland is, together with Spain, the highest in western Europe, reflecting the higher past fertility. However, while 48% of all private households still consist of couples with dependent children, the number of single-parent households has increased to 11% of all private households (the highest percentage in the EU). That means that almost one in five households with dependent children is headed by a single parent, a proportion slightly smaller than in the United Kingdom.

Moreover, one-person households represent 20% of all private households. Due to the aging of the population, the proportion of households with only one person is expected to increase significantly, reflecting the growing disparity in life expectancy between men and women.

Demographic trends and structure

<table>
<thead>
<tr>
<th>Population</th>
<th>1995</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>3580</td>
<td>4013</td>
</tr>
<tr>
<td>Urban population</td>
<td>57%</td>
<td>78%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distribution by age:</th>
<th>1995</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–14 years</td>
<td>24.7%</td>
<td>21.2%</td>
</tr>
<tr>
<td>15–64 years</td>
<td>63.8%</td>
<td>66.2%</td>
</tr>
<tr>
<td>65+ years</td>
<td>11.5%</td>
<td>12.6%</td>
</tr>
<tr>
<td>85+ years</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

| Total fertility rate | 1.9 | 1.5 |
| Dependency ratio | 56.9 | 51.1 |

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* As per 1st January 1995 (Eurostat 1996)
* Forecast, Eurostat intermediate scenario
* 1993 (UNDP 1998)
* 1994 (Council of Europe 1995)
population and in particular the higher female life expectancy, these households often consist of single 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.

**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 Irish people with an upper secondary or higher education is somewhat below the EU average. On the other hand, unlike other countries, men and women have about the same educational attainment (Eurostat 1995c). Moreover, educational achievements in Ireland are considerably better than in some of the other EU countries with comparable levels of GDP.

As family size is reducing and as many children are growing up without siblings or (at least temporarily) with only one parent, and as a high proportion of women are employed outside the home, the availability of preschool facilities is important in respect of both children’s social integration and mothers’ and children’s psychosocial wellbeing. In Ireland the education authorities do not provide preschool education until the age of four years (Eurostat 1995d).
Economy

Ireland has a mixed economy, with both private and public sectors. A programme of privatization is under way. In the early 1990s:

- agriculture employed 14% of the civilian workforce and accounted for 10% of GDP;
- industry employed 28% of the civilian workforce and represented 10% of GDP;
- services accounted for 80% of GDP and employed 58% of the civilian workforce (Eurostat 1995a, UNDP 1995).

Unemployment was 15% of the workforce in 1994 and among young people aged under 25 years was, at 24%, above the EU average (Eurostat 1995a).

In 1992 Ireland spent 21% of its GDP on social protection, most of it on old age, sickness and family benefits (Eurostat 1994).

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### Basic economic data

<table>
<thead>
<tr>
<th>Indicator</th>
<th>IRE</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNP per head (US$,1992)</td>
<td>12 850</td>
<td>20 043</td>
</tr>
<tr>
<td>Real GDP per head (PPP US$,1992)</td>
<td>12 830</td>
<td>17 792</td>
</tr>
</tbody>
</table>

*Source: UNDP 1995*

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### GDP (PPS*), 1992

- Greece
- Portugal
- Spain
- Ireland
- Finland
- United Kingdom
- Sweden
- Netherlands
- Italy
- Denmark
- Germany
- Austria
- Belgium
- France
- Luxembourg

### Expenditure on social protection as percentage of GDP, 1992

- Greece
- Portugal
- Spain
- Ireland
- Finland
- United Kingdom
- Sweden
- Netherlands
- Italy
- Denmark
- Germany
- Austria
- Belgium
- France
- Luxembourg

*EU unit of purchasing power parity (PPP)*

*Source: EUROSTAT 1995a*
HEALTH STATUS

An analysis of the population’s health status against the background of the 18 European reference countries\(^3\) shows that for Ireland, since 1980, mortality has been considerably reduced as to several key indicators, while for others the country still ranks among the countries with the highest death rates. In 1992:

- life expectancy at birth improved more than the EU average but was still third lowest;
- despite marked reductions as regards mortality of the population aged 0–64 years from cardiovascular diseases (CVDs) in general and ischaemic heart disease in particular, Ireland ranked, respectively, second highest and highest; in contrast, death rates for cerebrovascular disease show the largest decrease among the reference countries and are now below the EU average;
- a sizeable improvement has been recorded as regards lung cancer; however, overall cancer mortality remained slightly above the EU average and death rates for female breast and cervical cancer are still among the highest;
- mortality from all accidental and other violent deaths has decreased and the suicide rate for both sexes is still lower than in most of the reference countries even though male suicide rates have risen by over 50%.

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 mortality than men. In 1992, in Ireland, women’s life expectancy at birth (78.2 years) was more than five years longer than that for men (72.6 years). This

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\(^3\) See footnote 1 on page 3.

### Ireland relative to 18 European countries in 1980 \(\bullet\) and latest available year (1991–1993) \(\odot\)

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>BEST</th>
<th>WORST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth (years)</td>
<td>75.4</td>
<td>76.8</td>
</tr>
<tr>
<td>Male/female difference in life expectancy at birth (years)</td>
<td>5.6</td>
<td>6.4</td>
</tr>
<tr>
<td>Infant mortality rate per 1000 live births</td>
<td>6.7</td>
<td>6.8</td>
</tr>
<tr>
<td>Maternal death, all causes, per 100 000 live births</td>
<td>5.7</td>
<td>6.5</td>
</tr>
<tr>
<td>SDR(^d), cardiovascular diseases, age-group 0–64</td>
<td>80.5</td>
<td>60.1</td>
</tr>
<tr>
<td>SDR, ischaemic heart disease, age-group 0–64</td>
<td>56.6</td>
<td>31.7</td>
</tr>
<tr>
<td>SDR, cerebrovascular disease, age-group 0–64</td>
<td>10.5</td>
<td>11.5</td>
</tr>
<tr>
<td>SDR, cancer, age-group 0–64</td>
<td>89.2</td>
<td>87.4</td>
</tr>
<tr>
<td>SDR, trachea/bronchus/lung cancer, age-group 0–64</td>
<td>16.1</td>
<td>19.0</td>
</tr>
<tr>
<td>SDR, cancer of the cervix, age-group 0–64, female</td>
<td>3.4</td>
<td>3.3</td>
</tr>
<tr>
<td>SDR, cancer of the breast, age-group 0–64, female</td>
<td>25.8</td>
<td>19.8</td>
</tr>
<tr>
<td>SDR, external causes of injury and poisoning</td>
<td>39.8</td>
<td>47.0</td>
</tr>
<tr>
<td>SDR, motor vehicle traffic accidents</td>
<td>11.8</td>
<td>13.0</td>
</tr>
<tr>
<td>SDR, suicide and self inflicted injury</td>
<td>10.7</td>
<td>11.7</td>
</tr>
</tbody>
</table>

\(\odot\) Position improved 6 (indicators)

\(\odot\) Position unchanged 2 (indicators)

\(\odot\) Position deteriorated 2 (indicators)

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.
differential is in the lower range for the reference countries but has slightly increased over the last decade.

Socially disadvantaged subgroups of the population also suffer from higher mortality and therefore lower life expectancy than average. The Travelling community in Ireland is an example of such a subgroup, and studies have shown that life expectancy of Travellers remains at the level experienced by the overall population during the 1940s (Department of Health 1995b).

According to the national health interview survey conducted in 1992 (Happy Heart National Survey), 65% of the population aged 30–69 years considered their health as good or very good. Although people tend to perceive their health less favourably with age, this percentage was still as high as 63% for men and 61% for women in the group aged 60–69 years, while only 7% of both men and women in this age group assessed their health as being not very good or bad.

Life expectancy

Since 1970, life expectancy at birth for both sexes has steadily increased in all the reference countries. However, this trend was less pronounced for Irish men: in the early 1970s male life expectancy at birth was around the EU average, while it was nearly one year below it in 1992. Female life expectancy at birth remained one of the lowest among the reference countries over this whole period and by 1992 it was nearly two years below the EU average. 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) give some indication of the potential for improving overall life expectancy. In Ireland,

- life expectancy at 65 years has dropped from being among the lowest to the lowest of the reference countries in 1992 for both sexes;
- premature mortality (deaths before the age of 65 years) decreased more sharply (by about 18%) than the EU average for both men and women; nevertheless, the loss of life expectancy through death before the age of 65 remained higher than the EU average for women and lower than the average for men.

Main causes of death

Cancers are the most frequent cause of death under the age of 65 years, followed by cardiovascular diseases (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 groups: external causes (the most prominent causes until the age of 35), 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 habits and 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.

The most striking feature of the Irish age- and sex-specific mortality rates when compared to the values observed in the EU is the high male mortality (particularly between 15 and 34 years and over 65 years) and the high mortality of women aged over 35 years.

- At 1–14 years, both girls and boys have high SDRs for deaths from congenital anomalies (the second and third highest, respectively). Mortality from diseases of the nervous system and the sensory organs is above the EU average, while death rates for external causes are at average among girls and somewhat higher among boys. In contrast, female cancer mortality is third lowest in this age group and for males it is the lowest.
- At 15–34 years, the overall mortality for women is third lowest among the EU countries while for men it is just below the EU average. The excess male mortality is mostly due to accidental and other violent deaths with a rate above the EU average. The male SDR for all cancers is third highest but these deaths are far less frequent than those due to accidents.
- At 35–64 years, women in Ireland have the second highest overall mortality among the EU countries while men rank in an average position. The two main causes of death are cancer and CVDs. Mortality from cancer is below the EU average for men but second highest for women; mortality from CVDs is second highest for men and highest for women. Deaths due to respiratory diseases, albeit less frequent, have the third highest rate for men and the highest for women.
- Over the age of 65 years, overall mortality in men is the highest among the EU countries and second highest in women. Cancer mortality is still higher than in most EU countries, especially for women, who have the second

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This category includes all mortality due to poisoning, suicide, homicide and all types of accident.
highest SDR, while men have the highest SDR for CVDs. Mortality from respiratory diseases also contributes to the overall excess mortality for this age group, with by far the highest SDR for both sexes.

The analysis of age- and sex-specific mortality patterns shows that the greatest potential for reducing mortality lies in two broad areas:

1) improving the health of children: in this area, the prevention of accidents presents the greatest opportunity for reduction in mortality; more specifically, road traffic accidents (particularly involving young men) contribute to high levels of mortality;

2) prevention of cancer, CVDs and respiratory diseases for all adults: this would also help to alleviate the burden of suffering and disability from chronic degenerative diseases.
These charts show age- and sex-specific death rates for the main causes of death in Ireland in 1992. 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.
**Cardiovascular diseases**

The overall trend in SDRs for CVDs in the population aged 0–64 years has been falling since 1970 in the reference countries. In Ireland this downward trend was followed by both men and women but mortality from these causes remains one of the highest among the reference countries.

- The SDR for all CVDs for the population aged 0–64 years fell by one third – one of the greatest improvements over the last ten years but men continued to have the second highest death rate and women the highest.

- The SDR for ischaemic heart disease (0–64 years) are the highest for both sexes despite a reduction of 37% in women and 31% in men since 1980.

- The SDR for cerebrovascular disease (age 0–64 years) nearly halved, the largest decrease observed among the reference countries. In 1992, Ireland was below the EU average, whereas in 1980 it had the second highest death rate.
Cancer

In 1992, mortality from all cancers was responsible for high numbers of premature deaths among Irish women compared to the reference countries whereas the SDR for men aged 0–64 years was well below the EU average in 1992. The SDR for women was the third highest among the reference countries with only a 4% improvement over the last decade.

• The SDR for cancer of the lung for men and women aged 0–64 years decreased by 25% and 12%, respectively, over the last decade. But while men have comparatively low mortality, the female SDR is still over 40% higher than the EU average despite the fact that women experienced the largest decline in mor-

Note: Rank order from country with highest SDR to country with lowest SDR in 1992
HIGHLIGHTS ON HEALTH IN IRELAND

Health Status

Cancer mortality is amenable to many preventive measures including a reduction in tobacco use and a more balanced diet. Efforts have been in place for many years to combat these and other avoidable risks, particularly through the work of the Health Promotion Unit. The recently published strategy document (Department of Health 1995a) sets out preventive strategies and targets for health promotion for the next few years.

- Men have the fifth highest death rate and women the highest death rate from cancer of the digestive organs and the peritoneum.
- Irish women experience some of the highest mortality rates in the EU for both cancer of the breast and of the cervix (see also section on women’s health).

Belgium
Italy
France
Luxembourg
Netherlands
Greece
EU
Spain
Germany
Austria
Denmark
United Kingdom
Switzerland
Austria
EU
Germany
Belgium
Luxembourg
France
Greece
Finland
Ireland
Portugal
Norway
Sweden
Iceland

Rank order from country with highest SDR to country with lowest SDR in 1992

Rank order from country with highest SDR to country with lowest SDR in 1992
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 going down since 1970. In Ireland, male and female SDRs for all external causes closely followed the EU trend and in 1992 were slightly below the EU average.

Furthermore, the risk of dying in a road traffic accident has dropped by 26% over the last ten years to just below the EU average. However, as has been stressed earlier, age-specific mortality is markedly higher for young men up to the age of 35 years. The risk of being injured in a road traffic accident has gone up slightly but remained one of the lowest among the reference countries in 1992 (287 per 100,000 against an EU average of 477).
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 Ireland (18 per 100 000 population) is five times higher than that of women (the EU average is three times higher). The suicide rate for women (3.6 per 100 000 population) is one of the lowest in western Europe and has been falling since 1980. The men’s rate, however, is now at the EU average and there has been a 53% increase since 1980, the largest increase recorded among the reference countries. The increase is particularly marked among young males aged 15–34 years. This is an issue of growing concern and a national task force has been established to formulate a national suicide reduction and prevention strategy.

While information on the prevalence of mental illness in the general population is not readily available, the annual report Activities of Irish psychiatric hospitals and units of the Health Research Board provides statistical information on all admission, discharges and deaths occurring within the inpatient psychiatric service in Ireland. Schizophrenia, alcohol-related disorders and depressive disorders accounted for 12.17%, 23.93% and 29.12%, respectively, of first admissions to psychiatric hospitals in 1994 and 14.2%, 26% and 29.8%, respectively, of such admissions in 1992.

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 can be a delay of 10 years or more between 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, Ireland had an incidence rate of less than 2 cases per 100 000 people in 1994, one of the lowest in the reference countries.

By the end of March 1995, 463 cases of AIDS had been reported in Ireland. Forecasts predict that the incidence will increase during the 1990s and that 130 new cases a year are to be expected by the end of
the century (European Centre for the Epidemiological Monitoring of AIDS 1994 and 1995). In nearly half the cases reported by the beginning of 1994 the transmission mode was injecting drug use (44%), followed by homo/bisexual contact (35%) and heterosexual contact (12%), but the long incubation period means that these figures do not necessarily reflect the actual extent of the epidemic or 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 some 1737 HIV-positive people in Ireland at the end of 1993. There is also likely to have been a shift in the distribution of HIV cases as to transmission, with the largest estimated increases generally among the heterosexual group. Based on back-calculated prevalence estimates, at the end of 1991 injecting drug users accounted for 53% of all seropositive cases in Ireland, followed by homo/
bISEXUAL men (26%) and heterosexuals (18%).

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 routinely available. Ireland is in the medium range as regards the proportion of people aged under 60 years receiving a disability pension – 4.2% compared to an average of 4.7% in the EU. However, this indicator depends very much on the eligibility criteria used.

It is estimated that there are over 25,000 people with a mental handicap in Ireland. In 1995, over 15,000 mentally handicapped people were in receipt of specialist services. In addition, approximately 8,000 children attend special schools and classes under the aegis of the Department of Education. The ongoing development of new services, together with the establishment of a National Mental Handicap Database, is continuing to address the needs of this group for residential and day services on both a short- and long-term basis. In 1993, 13,400 mentally handicapped people were cared for either in residential services or in day facilities, while 2,800 were on waiting lists for such services (Department of Health 1994c).

Health of children and adolescents

The first year of life is one of the most critical phases concerning 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 10 years, infant mortality rates (IMR) have converged throughout the EU. In Ireland the IMR has fallen by almost 30% to 6.7 per 1000 live births, just below the EU average. However, the Travellers’ IMR is much higher: in 1987, it was as high as 18.1 per 1000 live births against 7.8 for settled people. This has been linked to many factors including lesser access to ante- and postnatal care as well as sexual health and family planning services (Department of Health 1995b).
Neonatal deaths contribute to over two thirds of all infant deaths, and most often occur in babies of very low birth weight. In 1991, 4.2% of newborn babies weighed under 2500 g (Department of Health 1994a) which is one of the lowest low birthweight rates in Europe. In the same year, the caesarean section rate was 11% and has risen by some 60% since the first Report on perinatal statistics was published in 1994. International comparisons including Ireland, have found that higher caesarean section rates do not necessarily reduce neonatal deaths (Taylor et al. 1992). The sudden infant death syndrome is the main cause of death in the postneonatal period. In Ireland, this rate is 1 per 1000 births and has been halved during the last 10 years. Much of this marked reduction has been due to health education in the areas of infant sleeping positions and the dangers of over-heating.

Immunization coverage of children against communicable diseases has been somewhat inconsistent over the past decade and rates generally remain lower than the EU average. In 1990, pertussis, diphtheria, poliomyelitis and tetanus coverage was around 65%, whereas for measles it was close to 80% (HEA database). In 1993, an epidemic year for measles in Ireland, the incidence was 121 per 100 000, nearly four times the average for the EU. Since then the rate has fallen sharply to a figure of 35 cases per 100 000 for 1994 and 7 per 100 000 in 1995.

Children’s oral health has also improved over the past decade, contributing to long-term benefits for general health, particularly for the functioning of the digestive system. The reported average number of decayed, missing or filled teeth (DMFT index) in 12-year-olds halved from 5.4 in 1970 to 2.7 in 1990.

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 can lead to chronic degenerative diseases. This is also the phase when social insecurity can be compounded by, for example, unemployment – more than one in three unemployed people are aged under 25 years (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. Nevertheless, at 17.2 per 1000 live births, Irish fertility rates for this age group remain relatively high and are about three times the lowest rate observed among the reference countries (Council of Europe 1995). In 1994, nearly 5% (2376) of all live births were to mothers aged under 20 years, 93% of them outside marriage, suggesting a high proportion of unwanted pregnancies (Department of Health 1995c).

A high teenage pregnancy rate also sheds light on the availability and correct use of condoms, which must also be considered with respect to the risk of contracting sexually transmitted diseases (STDs), including HIV. In western Europe, more than two thirds of all reported cases of gonorrhoea occur among young people under 25 years of age (WHO 1992). A one-year survey of attendees at an STD clinic in Dublin found that 40% of teenage girls visiting the clinic had never used any form of contraception. In addition, 90% had had sexual relations without using condoms and approximately 70% were diagnosed as having at least one sexually transmitted infection (Fitzpatrick et al. 1992). A recent survey of sexual practices and contraceptive awareness in an Irish university showed that undergraduates were similar to adolescents with respect to use of contraceptives and occurrence of STDs (Condon et al. 1993).

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.

Female life expectancy at birth is third lowest and life expectancy at 65 years was the lowest among the reference countries in 1992. Mortality from all causes for women under the age of 65 years is the third highest among the reference countries and over 15% higher than the EU average. Specifically, death rates from ischaemic heart disease in this age group (double the EU average), and respiratory diseases (more than double the EU average) are the highest despite important reductions over the past decade. Cancer mortality is the third highest among the reference countries.

Mortality from cervical and breast cancer are both higher than the EU average and are among the highest levels reported by the reference countries. Furthermore, over the last ten years there is no indication of any sustained decrease in mortality rates from these cancers. However, for cancer of the cervix which accounts for an average of about 50 deaths per annum, there can be considerable fluctuations in the SDR from year to year, and the underlying trend is therefore difficult to determine. Early sexual activity, multiple partners, cigarette-smoking and a rise in the human papilloma virus have all been considered contributory risk factors in the incidence of cervical cancer, particularly in younger women. A breast cancer screening programme initiated in 1989 and limited to the Dublin and north-eastern areas detected 7.9 breast cancers per 1000 women, a considerably higher prevalence than the proportion of cancers seen in referral practice populations (Codd et al. 1994).

After declining substantially between 1974 and 1984, maternal mortality has generally remained at around one or two deaths per year during the past decade. With such small numbers, any increase will obviously result in a large proportional increase in the death.
rate for any given year. Ireland has one of the lowest maternal mortality rates of the reference countries with an annual average rate of 5.7 maternal deaths per 100,000 live births between 1990 and 1992. Direct obstetric causes, particularly postpartum haemorrhage, are responsible for most maternal deaths (Bolaji/Meehan 1993). Abortions are illegal in Ireland and Irish women seek abortions in other EU countries, mainly in the United Kingdom (Francombe 1992). A prohibition on the provision of information about abortion services in other countries has been removed.

While legislation in Ireland has been slow to recognize the right of couples to a family planning method of their choice, family planning services are now widely available throughout the country. In rural areas, this service is often provided at general practitioner level.
while in larger cities and towns it is also provided by family planning centres. The absence of public transport over much of rural Ireland can, however, make it more difficult for those who live in the countryside to access services (Department of Health 1995b).

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 chancreoid) has declined, new bacterial and viral syndromes associated with Chlamydia trachomatis, the human herpes virus, the human papilloma virus 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.

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 Wouwern 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. 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). Over 10% of teenage girls attending an STD clinic in Dublin reported past sexual abuse (Fitzpatrick et al. 1992). It is, however, encouraging that female mortality from homicide and deliberate injury has dropped by almost 90%, by far the greatest reduction over the past 10 years among the reference countries.
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, and smoking or 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 Ireland. Unhealthy behaviour also contributes to a wide range of chronic illnesses and thus affects the quality of life in general and 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.

**High blood pressure** is one of the most common determinants associated with CVDs. The Department of Health estimates that the prevalence of hypertension (a systolic blood pressure of 160/100mm Hg or more) was approximately 25% among adults aged 35–64 years included in a recent survey. Hypertension is less frequent in people with higher education, and is statistically associated with increasing age, obesity, elevated cholesterol and, at least for men, with higher levels of alcohol drinking.

Higher levels of **cholesterol** are known to increase the risk of CVDs. It is estimated that the mean serum cholesterol level in the group aged 3564 years is 5.6 mmol/L, above the target level of 5.2 mmol/L (Department of Health 1994b). For both sexes, higher cholesterol levels are associated with obesity and, particularly for older men, with heavy smoking.

**Overweight and obesity** are commonly assessed with the body mass index (BMI), calculated as weight (kg) divided by height (m)^2. The National Nutritional Survey carried out in 1990 found that 53% of the male and 33% of the female adult population were overweight (i.e. BMI between 25 and 30 inclusive) with an additional 10% of men and 15% of women classified as obese (i.e. BMI greater than 30). Results from the Kilkenny Health Project indicate that the incidence of overweight and obesity is rising, a trend seen in several other western countries. Overweight is a recognized risk factor for hypertension, high cholesterol, diabetes and CVDs.
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 Ireland usually following the northern trends. However, contrary to the other northern countries, the intake of cereals is much higher and similar to the levels found in the south. The average proportion of energy derived from fat remains high. Results from published surveys indicate that average percentage energy from fat is close to 40%.

During the 20 years up to 1990 several interesting trends in food consumption have become evident in Ireland. Total meat intake has remained static with a steady fall in beef and mutton intake counterbalanced by a rise in pork/bacon and poultry. Fish intake has risen slightly although consumption is still low compared with other European countries. Low fat milk consumption has risen but full fat milk remains the milk of choice for the majority of the population. Cheese and yoghurt consumption has risen significantly. Edible fat consumption has fallen slightly mainly through a drop in butter consumption, but has been counterbalanced by a steady rise in the use of dairy spreads since their introduction. Fruit consumption has risen though vegetable consumption experienced a drop from 1988. Fruit and vegetable consumption remain low in Ireland compared with southern European countries. Potato consumption has remained stable with a steady rise in the proportion used for processing.

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 Ireland, however, it continued to increase although it still remains below the EU average. This trend was mostly due to a rapid increase in wine consumption, which nearly tripled between 1983 and 1993. The increased wine drinking follows the general pattern of diversification of beverages throughout Europe. However, contrary to the trends observed in other countries, intake levels of traditional beverages such as beer or distilled spirits also went up (in each case by over 20%) between 1983 and 1993. Thus in 1993 the total consumption of alcoholic beverages measured by pure alcohol intake was 8.3 litres per person.

Change patterns of food consumption in Europe, 1970–1990

Source: FAO/WHO, Nutrition PC database

a) Denmark, Finland, Iceland, Norway, Sweden.

b) Greece, Italy, Portugal, Spain.
compared to 7.3 litres in 1980, a 14% increase. With an annual consumption of over 130 litres per head (the second highest among the reference countries after Germany), beer remains by far the most popular beverage, while the average intake of distilled spirits (1.7 litres per head) is slightly below the EU average and the wine consumption level (9 litres per head) is one of the lowest (Produktschap voor Gedistilleerde Dranken 1994).

Ireland has the lowest death rate from cirrhosis and other liver diseases among the reference countries and the rate has continued to fall over the past decade by 14% for men and 27% for women. However, the Department of Health notes a continuing problem of alcohol misuse: almost a quarter of admissions to psychiatric hospitals are related to alcohol problems (Department of Health 1994b).

**Tobacco consumption**

No definite trends are evident for tobacco consumption in Ireland in recent years. Since 1989 the number of cigarettes retained for home consumption has fluctuated between 5 and 6 billion cigarettes per annum. The prevalence of smoking among adults (15 years and older) fell consistently during the first half of the 1980s but has remained around 28% since 1987. During the same period the smoking prevalence among young people aged 16–24 years has declined, although recently this figure has risen somewhat (Department of Health 1995c). It is estimated that over 6000 people die each year in Ireland (around 20% of all deaths) as a result of tobacco-related illnesses (BASP 1994). However, the mortality rate due to lung cancer and other tobacco-related cancers is well below the EU average; over the past decade Ireland has been one of the few countries where this rate has decreased for both men and women.

Between the ages of 14 and 15 years, the prevalence of daily smoking roughly doubles to 6% for boys and 2% for girls, some of the lowest rates in the EU (Van Reek/Adriaanse 1995). A major survey (the first national survey) of substance use among young people has recently been completed. Initial results are encouraging in that the suspected growth in smoking among young women has not been confirmed.
Lifestyle

Percentage of daily smokers among adolescents by sex and age, 1990 (N=4,538)

**Males**
- Spain
- Germany\(^*\)
- Portugal
- France
- EU
- Denmark
- Belgium
- Netherlands
- Great Britain
- Ireland
- Greece
- Italy

**Females**
- Denmark
- Great Britain
- Spain
- Netherlands
- Germany\(^*\)
- EU
- Belgium
- Ireland
- France
- Portugal
- Greece
- Italy

Daily smokers (%)

* As per territorial boundaries before 3/10/90

Source: Van Reek and Adriaanse 1995

Percentage of smokers among adult population aged 15+

**Males**
- Netherlands
- France
- Greece
- Spain
- Denmark
- Germany\(^*\)
- EU
- Belgium
- Portugal
- Italy
- United Kingdom
- Luxembourg

**Females**
- Denmark
- Netherlands
- France
- United Kingdom
- Luxembourg
- Greece
- EU
- Belgium
- Germany\(^*\)
- Spain
- Ireland
- Italy
- Portugal

Smokers (%)

*1987/88 as per territorial boundaries before 3/10/90

Source: BASP 1994
Illicit drug use

Although no accurate figures are available, current estimates indicate that somewhere between 2000 and 10 000 people are addicted to illicit drugs. Statistics for the Dublin area for 1994 show that some 3000 people were treated for drug misuse. Cannabis and ecstasy are the most common drugs of misuse countrywide, while the serious problem of heroin misuse is mainly confined to the Eastern Health Board region. The average age of people entering drug treatment centres dropped to 22.7 years in 1994 (against 28 years in most other major cities in the EU). In Dublin, between 1993 and 1994, there was a 34% increase in the number of people seeking treatment for the first time while overall treatment increased by 2%. Statistics to September 1995 show that intravenous drug users represented 41% of the total number of people with AIDS and 45% of the deaths among AIDS patients since HIV testing commenced in 1985.
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, elderly or ill people are more likely to be affected by adverse environmental conditions or contaminated food. Also, such conditions tend to cumulate 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

Carbon dioxide emissions have risen by approximately 23% over the period 1980-1991 in line with the increase in energy consumption attributable to economic and social development; CO₂ emissions per head are now about the EU average. As a corollary, the emission levels of sulfur dioxide and nitrogen oxides have both gone up by about 40% since 1985 to 51% and 6% in 1990, respectively, higher than the EU average (Eurostat 1995d: 186ff). Air quality standards for suspended particulates, sulfur dioxide, lead and nitrogen dioxide are in force. A standard for tropospheric ozone has not yet been specified, but is nevertheless monitored at six representative stations.

Ozone monitoring results for 1995 indicated a number of exceedances of the public information threshold of 180 µg/m³ but no exceedance of the public warning threshold of 360 µg/m³. Smoke is a widespread pollutant which in urban areas is largely attributable to domestic combustion of solid fuels. In the late 1980s the suspended particulates standard was breached in Dublin regularly during the winter months. While never actually breached, the same standard was consistently threatened in Cork. Bituminous solid fuel has been banned in Dublin since 1990, which has resulted in smoke-related air quality being considerably better than the standard. Similar results are expected in Cork following the introduction of an equivalent ban in 1995.

EU directives have been implemented regarding limitations on emissions from waste incineration and power plants and the reduction of sulfur in liquid fuels and lead in petrol; in addition, all of the various
mandatory EC directives on controls on motor vehicle emissions of air pollutants have been implemented. According to the Department of Transport, Energy and Communications, unleaded petrol sales approached 55% of total petrol sales in 1995.

**Water and sanitation**

The quality and quantity of surface freshwater resources are subject to regular and periodic assessment. Networks for the monitoring and continuous surveillance of water have been established. These enable a comprehensive quadrennial assessment of the quality of surface waters to be carried out by reference to a rigorous biotic index which takes account, in particular, of a range of biological indicators and also of physico-chemical parameters. The first qualitative national assessment of water started in 1971 and has been expanded since.

The most recent published data indicated that the bulk of Irish surface waters continue to be of high quality and capable of supporting the most sensitive uses such as for drinking and for game fishing. Some 77.5% of river channel length is unpolluted, while serious pollution affects 1% (Environmental Research Unit, 1992). The quantity of surface water resources available has been measured at some 31 000 litres per head per day, although not all of these resources are currently developed. A hydrometric data collection system has been in operation for many years based on an extensive river and lake gauging network. While groundwater resources are also widely available throughout Ireland, the extent of aquifers has only been approximately defined. Groundwater abstractions are estimated at about 3% of estimated annual recharge. Available information on quality, while limited, indicates that levels of chemicals greater than the EC maximum admitted concentration are uncommon.

A comprehensive monitoring regime is in place for the purpose of assessing the quality of drinking-water in Ireland. The results, which are published annually, indicate that 94% of supplies meet the requirements of the EU Drinking Water Directive. The proportion of the population served by a sewage treatment plant has increased from 40% in 1985 to over 47% currently (Ministry of the Environment 1995).

**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. Ireland’s waste policy recognizes the waste management priorities set out by the EU, emphasizing waste prevention, reuse, recycling and eventually optimal disposal. 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. With a 66% increase the Irish trend rose more steeply, although only to some 312 kg per head which was still below the EU average. Around 1993 the municipal waste recycling rate was estimated to be 78% but in 1994 a five-year national recycling strategy was adopted by the Government. Over 90% of domestic and commercial waste is disposed of by landfill (Department of Health 1994a). Between 1980 and 1990 the proportion of paper and cardboard recovered remained fairly low (some 3% of the material used), whereas the recycling rate for glass almost tripled over the same period from 8% to 23%. The respective maxima recorded among the reference countries are 51% and 67% (Eurostat 1995d: 194).
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. According to official assessments by local authorities in Ireland in March 1993, almost 2700 people were homeless on any one day of the year. Estimates of the number of homeless over the course of a year put this figure at 3700 people, i.e. about 1 per 1000 population (Avramov 1995: 92).

In 1990, 2% of dwellings had no indoor piped water supply, 6% of households had no inside toilet, 8% no inside bathroom or shower, and (according to the National House Condition Survey) an estimated 5.5% of the housing stock was unfit.

Increasing urbanization and road and air traffic has brought to the fore the issue of noise and its effects on health. In Ireland only a comparatively small segment of the urban population is seriously affected by it: in 1991 almost one in five people (18%) found the noise level at home unbearable and about the same proportion (22%) were seriously disturbed.

Safety at home and during leisure-time activities such as sports 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 young Irish men and women aged 10–24 years and 10–19 years, respectively, are particularly vulnerable to this type of accident, largely attributable to outdoor activities such as sports and games (EHLASS 1994, 1995).
**Occupational health and safety**

Exposure to health risks at the workplace is still an important cause of ill health and death, but 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.

In 1993, 83 cases of occupationally acquired diseases were notified (Department of Health 1994b), 90% of them either musculoskeletal diseases (42%, including 13% tenosynovitis), occupational dermatitis (41%), or occupational asthma (7%).

From 1993 onwards, occupational accident statistics have been available for all economic sectors, and an apparent doubling of the number of fatal accidents in 1993 is a reflection of the fact that the figure related to all sectors for the first time. In 1993, 64 people were killed in work-related accidents (1.8 per 100 000 population) and some 3900 people were injured. This represents a risk of 109 per 100 000 population against an EU average of 1700 per 100 000.

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**ographical accident death rates per 100 000 population and total number, 1991/1993**

- Luxembourg: 18
- Germany*: 2660
- Italy: 1937
- Spain: 1116
- EU: 171
- Austria: 1082
- France: 130
- Switzerland: 64
- Ireland: 168
- Portugal: 61
- Norway: 138
- Belgium: 64
- Finland: 61
- Denmark: 81
- Sweden: 88
- Greece: 258
- United Kingdom: 43
- Netherlands: 1

* As per territorial boundaries before 3/10/90

Source: ILO 1994
HEALTH SYSTEM

Institutional structures and resources

Access to the public national health service is based on a means-tested system of eligibility comprising two categories. People whose income fall below a certain threshold fall into category I and are entitled to a wide range of free services. This group constitutes 36% of the population. The remainder of the population has limited eligibility and is classified as category II. This eligibility structure forms a central feature of the Irish health care system. There is also a well-developed private sector which can be accessed through insurance cover and/or direct payment.

Category I status is essentially designed to meet the needs of people who are unable, without undue financial hardship, to arrange general practitioner (GP) services for themselves and their dependants (Department of Health 1994b). Decisions on applications for medical cards (i.e. category I status) are made by each health board on uniform guidelines.

Entitlements under category I can be summarized as follows:

- GP services;
- all inpatient hospital services (including consultant care) in public wards;
- specialist services in outpatient clinics;
- dental, ophthalmic and aural services and supply of appliances;
- supply of prescription drugs, medicines, medical and surgical appliances;
- maternity care and infant welfare services.

Category II people are entitled to:

- all inpatient hospital services in public wards, subject to certain charges;
- specialist services in outpatient clinics (excluding dental and routine ophthalmological and aural services, except for patients referred from child health or school health clinics);
- maternity care and infant welfare services, including the services of a family doctor during pregnancy and for up to six weeks after the birth;
- drugs and medicine for the treatment of some illnesses;
- a refund from the health board of expenditure incurred on drugs and medicines over £IR90 per quarter.

People in category II tend to have recourse to voluntary health insurance. The Voluntary Health Insurance Board is a quasi-monopoly covering around 35% of the population. It pays the contribution for care in the public health service system (e.g. for hospital services) required of patients who do not hold medical cards, and provides for services that are not available to these people in the public service, such as GP services and private care. In the latter case, patients pay first and are reimbursed by the Board (Berthod-Wurmser 1994).

The Department of Health has a planning, budgeting and coordinating role but is not directly involved in the provision of services. This is the responsibility of the eight regional health boards serving populations of 200,000–1.25 million. They are made up of elected

### Health personnel per 1000 population

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<tbody>
<tr>
<td>Physicians</td>
<td>1.7</td>
<td>131</td>
<td>2.7</td>
<td>143</td>
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<tr>
<td>Dentists</td>
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<td>Nurses</td>
<td>7.3</td>
<td>129</td>
<td>6.0</td>
<td>129</td>
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* Or latest available year

Source: OECD 1995
local representatives, health professionals and ministerial nominees, with a chief executive officer heading the managerial structure.

Services are managed and delivered through three programmes, community care, general hospitals and special hospitals, each headed by a programme manager (Brady 1993).

**Primary health care**

**General practitioners**
People in category I register with a doctor of their choice from a list of physicians participating in the scheme. GP services, prescribed drugs, medicines and appliances are then supplied free of charge to them and their dependants. Category II people, who pay in full, are free to choose any GP or specialist. GPs were paid on a fee-for-services basis up to 1989 but they are now paid on a capitation basis according to the patient’s age, sex and place of residence.

**Maternity and infant care scheme**
This scheme provides for free antenatal care for expectant mothers and medical care for infants up to the age of six weeks, irrespective of eligibility category. It is operated through GPs who have agreements with health boards to provide the services in return for specified fees. Normally mothers choose their own GPs and make at least two visits before confinements and two visits afterwards.

**Child health services**
Child health services are divided into services for preschool children and for children at national schools. Preschool services are based on comprehensive developmental paediatric examinations of children at the approximate ages of 6–9 months, 12–15 months and 24 months at local health centres.

The school health service is based on a comprehensive medical examination of school entrants and further examinations of older children selected on the basis of information supplied by parents and other interested persons. These examinations are conducted on school premises by a medical team. Children are also provided with dental services through school-based dental programmes. Eligibility for dental services has now been extended to children up to 14 years of age.

**Community nursing services**
A general community nursing service is provided by the health boards through public health nurses who are specially trained in the field of community nursing. The services provided by community nurses are:
- care and supervision of the frail and elderly;
- care and support of the handicapped and their families;
- monitoring of the health of children from infancy to the end of primary school;
- health education and health promotion for individuals in the home and in the community.

**Primary dental care**
Dental services are provided by dentists employed by the health boards and by private dental practitioners under contract to health boards. About 5000 children complete orthodontic treatment each year, with priority afforded to category I clients.

Water fluoridation was introduced in the early 1960s. Some 74% of the population is provided with fluoridated water.

**Community pharmacists**
Prescribed medicines are supplied by retail pharmacists. The Refund of Cost of Drugs Scheme provides for the refund of drugs purchased by category I patients. Since October 1991, category II patients have been entitled to a refund from the health board of similar expenditure in excess of £IR90 per quarter (Department of Health 1994a).

**Aural and ophthalmic services**
Community aural services are primarily concerned with the ascertainment and assessment of hearing loss, particularly among children. Where hearing aids are prescribed, they are supplied through the National Rehabilitation Board.

Ophthalmic community services are provided by ophthalmologists employed by the health boards. Eligible adults can have their sight tested by professionals in private practice who have entered into agreements with the health boards. Where glasses are prescribed for an eligible person, they may have to be dispensed by a contracted dispenser.
Long-term illness scheme
This scheme provides without charge, the medicine and appliances necessary for the treatment of certain prescribed long-term illnesses and disability, without reference to the recipient’s level of income. The scheme is operated by the health boards.

Hospital care
The general hospitals programme accounts for about half the health care budget. There are 107 general hospitals, some with regional or national specialties. Thirty of the general hospitals are public voluntary hospitals, owned and operated by religious orders or incorporated by charters and working under lay boards of governors. They provide most of the acute care in the Eastern Health Board region (Dublin area).

Both types of hospital are funded by the state. General public hospitals receive their funds from the health boards but voluntary hospitals are directly paid by the Department of Health. There is no direct reporting relationship between the voluntary hospitals and the health boards, which is problematic in terms of planning and delivering services.

Hospital inpatient and outpatient care is totally free for category I patients while category II patients must pay a contribution of £120 for the first 10 days of hospitalization in any given year. Outpatient visits are free; however, a category II patient attending an accident and emergency department who has not first attended a GP is liable to a charge of £12. The primary purpose of this charge is to discourage inappropriate attendance at these departments.

The Special Hospitals Programme accounts for about one-fifth of the health budget. Special hospitals provide care for the mentally ill and the mentally handicapped.

In the past 10–15 years, significant changes have taken place in the delivery of mental health services. In 1984, a report on the development of the psychiatric services, Planning for the future, was published. It recommended a shift in the delivery of care from a predominantly institution-based to community-oriented setting. In line with this policy, health boards have developed a comprehensive range of community-based services including day hospitals, day centres, community residences, group homes and day facilities.

As a result of this policy, the number of inpatients resident in psychiatric hospitals and units went down by 50% between 1984 and 1994. On 31 December 1994, there were 5568 patients resident in public psychiatric hospitals, 4082 of whom were long-stay patients (hospitalized for 12 months or more).

Private sector
The private sector has grown quite considerably in recent years, mainly because of dissatisfaction with the National Health Service (Berthod-Wurmser 1994). People can opt for private or semi-private hospital accommodation which is becoming increasingly available in public hospitals. There are also 18 private hospitals that are not funded by the state, most of which are run by non-profit religious organizations and specialize in elective surgery (Brady 1993). Private patients have to pay their bills and are reimbursed by the Voluntary Health Insurance Board, which has a quasi-monopoly on the sale of private insurance. Premiums are tax-deductible. In recent years there has been a shift towards more direct payment of providers by the Voluntary Health Insurance Board (OECD 1992).

There has been some concern that private patients in public hospitals enjoyed shorter waiting lists and more personal attention from consultants than public patients did (OECD 1992). The two strands within the system have now been separated through the designation of specific beds for public and private patients so as to achieve greater transparency. Private patients requiring elective surgery are now only admitted to private beds and a Waiting List Initiative was started in 1993 in order to better monitor equity (Department of Health 1994c).

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, Ireland spent 8.5% of its GDP on health in 1992 (6.8% according to OECD). However, Ireland is (together with Denmark) the only country in the EU for which this proportion has decreased since 1980. This is basically the result of a marked reduction in the share of the GDP spent on hospital care which, nevertheless, remained the highest in the EU (4.2% of GDP) in 1992. Spending on both

![Health care expenditure (as percentage of GDP) by group of services/goods: comparison between 14 countries of the EU](image)

Source: Schneider et al. 1995

* Data for Finland not available

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**Health System**
Ambulatory medical care and medication have risen by less than the EU average and in 1992 were below it. While the proportion of GDP spent on nursing care rose slightly and remained just above the EU average, the proportion spent on dental care fell and is now the smallest in the EU.

When total health expenditure is broken down by services and goods provided, the most striking features are the higher shares of the health budget spent on hospital care and nursing and the small share spent on dental care.

Recent developments and future trends

Health care reforms
In 1989 a monthly capitation payment for GPs was introduced for people holding medical cards (category I), as the fee-for-service method of paying GPs could encourage overvisiting, overprescribing and the medicalization of minor illnesses (OECD 1992).

Plans for future improvements in the nation’s health include the introduction of a more managerial ideology into the National Health Service. Management will be strengthened at all levels, and in particular a detailed management structure will be worked out at health authority level. A special emphasis will be placed on providing structures which encourage the linkage between services.

The services and financial performance of the regional authorities will be evaluated against national objectives, focusing on effectiveness. Ministerial sanctions will be exercised when a board does not observe budgetary discipline (Department of Health 1994c). Furthermore, the health services are now being audited in the search for more effective delivery.

Primary health care for Travellers is delivered through the Community Care Programme and involves a multidisciplinary approach. So far, however, Travellers’ needs have not been met and they have a much lower life expectancy and health status than the settled population. Of major concern is accessibility and their use of sexual health and family planning services. The Government recognizes that the health of Travellers is a specific problem and has established a Task Force on the Travelling Community with the remit to make recommendations regarding a health policy for Travellers.

The health of prisoners has also been recognized as a problem, in particular their misuse of drugs. A wide range of measures has been recommended, including the supply of methadone and clean needles when required, the introduction of counselling for HIV-
positive prisoners, and improvements in mental health care for prisoners through closer liaison between prison authorities and the health boards (Department of Health 1995b and 1994c).

**Health promotion**

Overall health strategies define key areas and main targets for health promotion for adults and adolescents based on the health profile. A fundamental objective, as outlined in the national health strategy document *Shaping a healthier future* (1994) and the *Health promotion strategy* (1995), is to improve life expectancy by concentrating in particular on the three main causes of premature mortality: CVDs, cancer and accidents.

Action will focus on the key areas through the setting of medium-term targets for the reduction of premature mortality followed by specific targets related to the main risk factors in the important areas of smoking, alcohol, nutrition and diet, exercise, cholesterol and blood pressure, and causes of accidents (Department of Health 1994c). Priority population groups will be targeted through the development of health promotion programmes designed for specific settings including the family, community, school, health services and workplace. In the fields where health promotion activities were proposed, measures will be taken to monitor the outcomes and effectiveness of these activities.

In addition, the Health Promotion Unit in the Department of Health sponsors a chair in health promotion in University College, Galway, to engage in multidisciplinary research and teaching programmes in health promotion.
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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: 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.