

# Patterns of mortality in Spain, 2008



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# Patterns of mortality in Spain, 2008



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## Summary

**Objectives:** This report presents the patterns of general mortality and mortality by cause of death in the population residing in Spain, by sex, age and autonomous community (region) of residence in 2008. The evolution of mortality from the leading causes of death and the evolution of infant mortality are also presented.

**Methods:** Data for this report were taken from the data files on deaths by cause of death produced annually by the National Statistics Institute. These files are produced using information provided in the death statistics bulletin (*boletín estadístico de defunción*), which is filled out by family members, functionaries of the civil registry, and physicians at the time the physician certifies the cause of death. The causes of death in these files have been coded in accordance with the International Classification of Diseases.

**Results:** In 2008 there were 386,324 deaths in Spain, representing a crude mortality rate of 847.3 deaths per 100,000 population. The age-adjusted mortality rate in 2008 was 519.7 deaths per 100,000 inhabitants in the standard European population, a rate that was 2.7% lower than in 2007 and 35.4% lower than in 1981. The age-adjusted mortality rate in 2008 was 76% higher in men than in women. Between 2007 and 2008 the age-specific mortality rates decreased in all age groups. The largest decline was seen in the 1-4 age group, with a reduction of 12.8%, and in the 25-34 year age group, with a reduction of 7.1%. Three-fifths of all deaths were due to the four leading causes of death: cancer, heart disease, cerebrovascular disease, and chronic lower respiratory diseases. The infant mortality rate in 2008 was 3.3 deaths per 1,000 live births, 3.2% lower than in 2007 and 23.5% lower than in 2000.

**Conclusions.** The mortality patterns in 2008 shows that the age-adjusted mortality rate continues to decline and that cancer and heart disease remain the two leading causes of death.

## Main findings

- In 2008 there were 386,324 deaths in Spain, representing a crude mortality rate of 847.3 deaths per 100,000 population.
- The trend in mortality risk, estimated based on age-adjusted mortality rates, showed a decline of 2.7% between 2007 and 2008, and a decline of 35.4% between 1981 and 2008.
- The age-adjusted mortality rate in 2008 was 76% higher in men than in women.
- The 15 leading causes of death in 2008 according to number of deaths were:
  - Cancer
  - Heart disease
  - Cerebrovascular disease
  - Chronic lower respiratory diseases
  - Unintentional injuries
  - Alzheimer's disease
  - Diabetes mellitus
  - Influenza and pneumonia
  - Nephritis, nephrotic syndrome and nephrosis
  - Chronic liver disease and cirrhosis
  - Hypertensive diseases
  - Septicaemia
  - Suicide
  - Vascular disorders of the intestine
  - Parkinson's disease
- Almost 60% of deaths are due to the four leading causes of death.
- Between 2000 and 2008 only 4 of the 15

leading causes of death showed an upward trend in the age-adjusted mortality rate: Alzheimer's disease, hypertensive diseases, septicaemia and Parkinson's disease. The mortality rate for the rest of the leading causes of death exhibited a downward trend.

- Men have a higher age-adjusted mortality rate than women for 13 of the 15 leading causes of death. Only Alzheimer's disease had a higher age-adjusted mortality rate in women than in men, whereas the rate for hypertensive diseases was similar in both sexes.
- Between 2000 and 2008 the age-adjusted mortality rates for causes attributable to smoking declined by 7% in men and increased by 44% in women. In contrast, the age-adjusted mortality rates for causes attributable to alcohol consumption have remained stable.
- The infant mortality rate in 2008 was 3.3 deaths in children under 1 year per 1,000 live births, which represents a reduction of almost 25% with respect to the year 2000.
- The 10 leading causes of infant death in 2008 according to number of deaths were:
  - Congenital malformations, deformations and chromosomal abnormalities
  - Disorders related to short gestation and low birth weight
  - Bacterial sepsis of newborn
  - Necrotizing enterocolitis of fetus or newborn
  - Sudden infant death syndrome
  - Fetus and newborn affected by maternal complications of pregnancy
  - Neonatal haemorrhage
  - Intrauterine hypoxia and birth asphyxia
  - Respiratory distress of newborn
  - Unintentional injuries

## Introduction

This report presents data for 2008 on deaths and mortality rates in Spain according to different demographic and geographic characteristics. Specifically, it provides information on the mortality patterns in general and mortality by cause of death in the population resident in Spain, by sex, age and autonomous community of residence. The evolution of mortality by the leading causes of death and the evolution of infant mortality are also presented.

Mortality data are frequently used to evaluate population health status (1-2), since estimates based on these data have the highest level of validity for temporal and geographic comparisons of the level of health. The completeness of information offered by the mortality registry, together with the objective nature of the phenomenon studied, make mortality indicators such as life expectancy or mortality by cause of death an appropriate instrument to monitor health problems and establish health priorities. According to the World Health Organisation (WHO), only mortality indicators are sufficiently reliable for the comparison of the level of health among different countries, given the limitations of other health statistics for purposes of comparison. Moreover, the information provided by these indicators on the pattern of mortality from various causes of death is the only way to approximate the population impact of many diseases.

## Methods

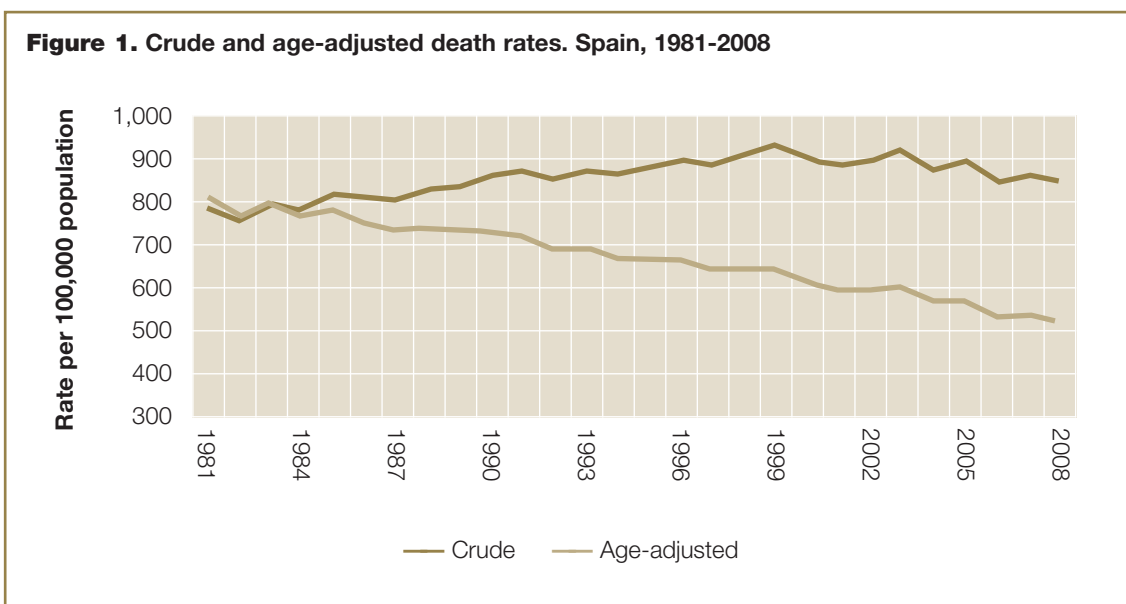
The data in this report are based on information from the death statistics bulletins for deaths occurring in persons residing in Spain. The information in these bulletins is completed by family members, civil registry functionaries and physicians at the time the

physician certifies the cause of death. The statistics on the causes of death are classified in accordance with the International Classification of Diseases, 10th revision. However, the International Classification of Diseases, 9th revision, was also used for the years before 1999 to identify the 15 causes of death that produced the largest number of deaths in 2008. Since the 10th revision of the International Classification of Diseases came into use in 1999, the study of the trend in mortality from these 15 causes of death since 1981 required use of the 9th revision of the International Classification of Diseases to code the causes of death between 1981 and 1998. The leading causes of death were selected and grouped following the criterion used by the Centers for Disease Control and Prevention in Atlanta (3). A comment on the classification of the causes of death is shown in the appendix on data sources and explanatory notes.

The mortality measures in this report include number of deaths, crude mortality rate, age-specific mortality rate, age-

adjusted mortality rate, infant mortality rate, neonatal mortality rate and post-neonatal mortality rate. In addition, the change in age-specific and age-adjusted rates between 2007 and 2008 and over the past decade are shown for the 15 leading causes of death.

The number of deaths was extracted from the data files on deaths by cause of death provided annually by the National Statistics Institute (Spanish acronym, INE) to the Ministry of Health, Social Policy and Equality. The appendix on data sources and explanatory notes explains how the information on deaths contained in this file is obtained. The population figures used to calculate mortality rates were taken from the Population Projections for Spain for the period 1980-2010, based on the 1981 Census (years 1981 to 1990), from the Population Projections for Spain, based on the 1991 Population Census (years 1991 to 2001), and from the Current Population Estimates (years 2002 to 2008), all of which are prepared by the INE.



## Results and discussion

### Deaths and mortality rates

In 2008 there were 386,324 deaths in Spain, 963 more deaths than in 2007. This figure is very similar to the number of deaths that have occurred in the last 5 years, for which the median was 385,361. The crude mortality rate in 2008 was 847.3 deaths per 100,000 population, which is 1.3% lower than the rate in 2007. This crude mortality rate is the second lowest since 1990; the lowest was seen in 2006, with 843 deaths per 100,000 population (Table 1).

The age-adjusted mortality rate in 2008 was 519.7 deaths per 100,000 standard population, which is low with respect to previous years. This rate was 2.7% lower than in 2007, when it was 534, and 35.4% lower than in 1981, when it was 804.8 (Figure 1). The age-adjusted mortality rate in Spain is one of the lowest of the European Union (EU) countries, together with those observed in Italy and France. This explains why these three countries have the highest life expectancy in the EU (4).

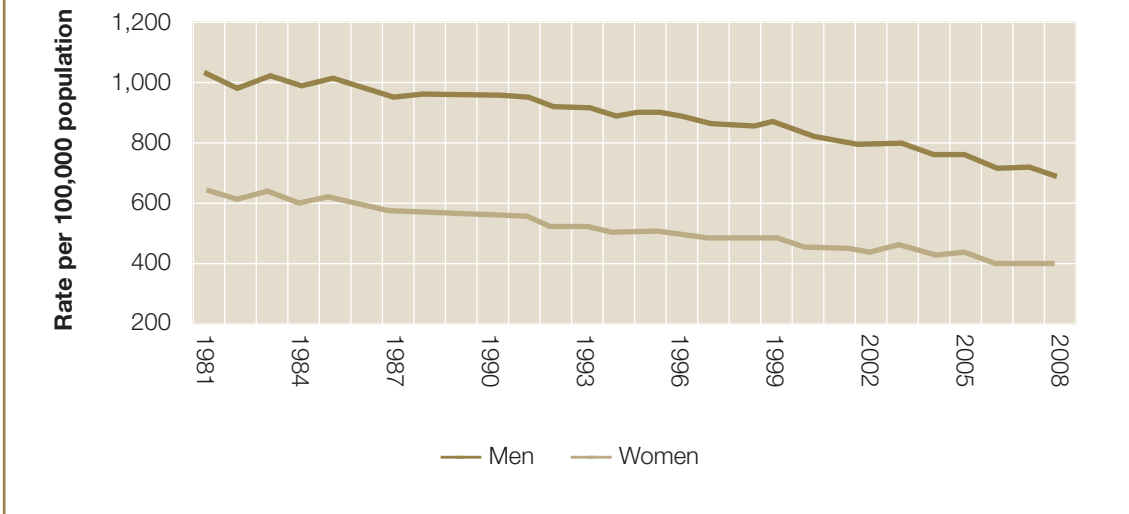
The age-adjusted mortality rate is a theoretical rate showing what the mortality rate would be if there had been no changes in the age composition of the population from year to year. A comment on age-adjusted mortality rates and how to calculate them can be found in the appendix

on data sources and explanatory notes. Thus, age-adjusted mortality rates are better indicators than crude mortality rates to evaluate the change in the risk of mortality over time, since the age distribution of the population changes. Age-adjusted mortality rates are also the best indicators to use for comparison of the risk of mortality between different geographic areas or between population subgroups with different age structure, as is the case for men and women. For example, whereas in 2008 the crude mortality rate in men was 10% higher than in women, the age-adjusted mortality rate was 76% higher. In European Union countries, the excess age-adjusted mortality rate in men versus women ranges between 45% and 110% (4).

Between 2007 and 2008 the age-adjusted mortality rate declined by 3.4% in men and by 1.7% in women. Since 1981 this rate has exhibited a downward trend in both sexes (Figure 2). In men it fell from 1022.6 per 100,000 population in 1981 to 681.1 in 2008, and in women it fell from 636.2 per 100,000 population in 1981 to 387.1 in 2008, which represents a reduction of 33.4% in men and 39.2% in women.

During this period the smallest difference between the age-adjusted mortality rates in men and women was seen in 1981 and the largest in 2001. The age-adjusted mortality rate was 61% higher in men than in women in 1981 and 82% higher in 2001.

**Figure 2. Age-adjusted death rates in men and women. Spain, 1981-2008**



## Mortality rates by age and sex

As in most developed countries, the lowest age-specific mortality rate is seen in the 5-14 year age group, as can be observed in table I. In 2008 the mortality rate in this age group was 11.6 per 100,000 population. The mortality rate in children under 1 year and in those aged 1-4 years was 352.3 and 18.2 per 100,000 population, respectively.

After the 5-14 year age group, the mortality rate rises in successive age groups, reaching 14,564 per 100,000 population in persons aged 85 and over. In each 10-year age group, the mortality rate practically doubles with respect to the preceding group, except for those aged 75-84, whose mortality rate is over 5 times greater than that of persons aged 65-74 (Table 2 and Table I).

In all age groups the mortality rate was higher in men than in women. The ratio of the male to female mortality rate in 2008 was highest in the 15-24 year age group, and lowest in the 1-4 year age group. In those

aged 15-24 the mortality rate was 2.67 times higher in men than in women, whereas in the 1-4 year age group the mortality rate was only 1.05 times higher.

Table II shows that between 2007 and 2008 the age-specific mortality rates declined in all age groups. The greatest reduction was seen in the 1-4 year age group, with a decline of 12.8%, and in the 25-34 year age group, with a decline of 7.1%. The smallest reduction was seen in the 45-54 year age group, with a decline of 0.6%, and in the 85 and over age group, with a decline of 1.1%. These were also the age groups that showed, respectively, the largest and smallest decline in the mortality rate over the present decade. Between 2000 and 2008 the largest reduction in mortality rates was seen in the 25-34 year and 1-4 year age groups, which decreased by 39.7% and 30.3%, respectively, while the smallest reduction was seen in the 85 and over age group and in the 45-54 year age group, which decreased by 8.8% and 10.3%, respectively.

**Table I. Mortality rate per 100,000 population by age. Spain, 2008**

| Age                       | Mortality rate |          |          | Mortality rate ratio in men vs. women |
|---------------------------|----------------|----------|----------|---------------------------------------|
|                           | Both sexes     | Men      | Women    |                                       |
| All ages                  |                |          |          |                                       |
| Crude                     | 847.3          | 886.8    | 808.8    | 1.10                                  |
| Age-adjusted              | 519.7          | 681.1    | 387.1    | 1.76                                  |
| Under 1 year <sup>1</sup> | 352.3          | 388.6    | 313.7    | 1.24                                  |
| 1-4 years                 | 18.2           | 18.6     | 17.7     | 1.05                                  |
| 5-14 years                | 11.6           | 13.8     | 9.4      | 1.47                                  |
| 15-24 years               | 36.5           | 52.6     | 19.7     | 2.67                                  |
| 25-34 years               | 48.0           | 68.2     | 26.4     | 2.58                                  |
| 35-44 years               | 112.6          | 149.8    | 73.6     | 2.04                                  |
| 45-54 years               | 288.1          | 398.7    | 178.5    | 2.23                                  |
| 55-64 years               | 631.6          | 922.4    | 357.5    | 2.58                                  |
| 65-74 years               | 1,493.5        | 2,145.3  | 934.3    | 2.30                                  |
| 75-84 years               | 6,103.3        | 7,911.7  | 4,959.7  | 1.60                                  |
| 85 years and over         | 14,563.9       | 15,975.8 | 13,903.7 | 1.15                                  |

<sup>1</sup> The mortality rate in children under 1 year is not the same as the infant mortality rate; the denominator in the infant mortality rate refers to the number of live births, whereas the denominator here refers to the number of children under 1 year of age

The large decline in the mortality rate in the 25-34 year age group is most likely due to the spectacular reduction in mortality from unintentional injuries beginning in 2000, mainly from traffic accidents, since this is the leading cause of death in this age group.

Indeed, the number of deaths from traffic accidents in the 25-34 year group was reduced by half between 2000 and 2008: from 1,191 deaths from this cause in 2000 to 585 deaths in 2008 (5). The smaller reduction in the mortality rate in the 45-54 year age group is primarily due to the small decline in the mortality rate in women: whereas in men the mortality rate fell by 13.6% between 2000 and 2008, in women it

fell by only 2.6%. This different trend in men and women is due mainly to the evolution of cancer mortality, one of the leading causes of death in this age group. Whereas the cancer mortality rate in men in this age group showed a continual decline between 2000 and 2008, in women the trend was stable (6).

Between 1981 and 2008 the largest reduction in the mortality rate was seen in the 1-4 and under 1 age groups, in whom it fell by 71%. Another population group with greatly reduced mortality was the 5-14 year age group, in whom the rate declined by 61%. The smallest decrease in the mortality rate between 1981 and 2008 was seen in the 85 and over group, with a 20% reduction.

**Table II. Percentage change in the mortality rate by age between 2007 and 2008 and between 2000 and 2008.**

| Age                       | Percentage change between 2007 and 2008 |       |       | Percentage change between 2000 and 2008 |       |       |
|---------------------------|---|-------|-------|---|-------|-------|
|                           | Both sexes                              | Men   | Women | Both sexes                              | Men   | Women |
| All ages                  |   |       |       |   |       |       |
| Crude                     | -1.3                                    | -2.3  | -0.3  | -5.3                                    | -7.7  | -2.8  |
| Age-adjusted              | -2.7                                    | -3.4  | -1.7  | -15.0                                   | -16.2 | -14.0 |
| Under 1 year <sup>1</sup> | -1.3                                    | 2.4   | -5.8  | -21.4                                   | -18.8 | -24.5 |
| 1-4 years                 | -12.8                                   | -13.1 | -12.4 | -30.3                                   | -36.0 | -22.5 |
| 5-14 years                | -2.0                                    | 0.1   | -5.1  | -28.5                                   | -27.9 | -29.4 |
| 15-24 years               | -5.5                                    | -7.9  | 2.3   | -33.1                                   | -34.3 | -29.6 |
| 25-34 years               | -7.1                                    | -7.4  | -6.0  | -39.7                                   | -42.2 | -34.0 |
| 35-44 years               | -6.5                                    | -9.2  | -0.5  | -26.9                                   | -31.4 | -17.8 |
| 45-54 years               | -0.6                                    | -0.8  | 0.0   | -10.3                                   | -13.6 | -2.6  |
| 55-64 years               | -2.4                                    | -2.9  | -1.3  | -12.7                                   | -13.3 | -11.5 |
| 65-74 years               | -5.1                                    | -5.6  | -4.4  | -18.3                                   | -18.1 | -19.6 |
| 75-84 years               | -3.2                                    | -3.8  | -2.6  | -12.8                                   | -10.9 | -16.4 |
| 85 years and over         | -1.1                                    | -2.1  | -0.6  | -8.8                                    | -11.2 | -7.7  |

<sup>1</sup> The mortality rate in children under 1 year is not the same as the infant mortality rate; the denominator in the infant mortality rate refers to the number of live births, whereas the denominator here refers to the number of children under 1 year of age.

## Leading causes of death

The 15 leading causes of death in 2008 were responsible for over three-fourths of all deaths in Spain, specifically, 76.9% of total deaths, and three-fifths of all deaths were due to the four leading causes of death. The 15 leading causes of death in 2008, according to number of deaths, were: 1) cancer, 2) heart disease, 3) cerebrovascular diseases, 4) chronic lower

respiratory diseases, 5) unintentional injuries, 6) Alzheimer's disease, 7) diabetes mellitus, 8) influenza and pneumonia, 9) nephritis, nephrotic syndrome and nephrosis, 10) chronic liver disease and cirrhosis, 11) hypertensive diseases, 12) septicaemia, 13) suicide, 14) vascular disorders of the intestine and 15) Parkinson's disease. The number of deaths and mortality rates from these causes are shown in table III and in table 3.

**Table III. Leading causes of death in Spain in 2008. Number of deaths, percentage of all deaths and crude mortality rate per 100,000 population, by cause of death**

| Rank <sup>1</sup> | Cause of death (based on the International Classification of Diseases, 10th revision) | Number of deaths | Percentage of all deaths | Crude mortality rate |
|-------------------|---|------------------|--------------------------|----------------------|
| ...               | All causes  | 386,324          | 100.0                    | 847.3                |
| 1                 | Cancer C00-C97  | 100,675          | 26.1                     | 220.8                |
| 2                 | Heart disease I00-I09, I11, I13, I20-I51  | 80,175           | 20.8                     | 175.8                |
| 3                 | Cerebrovascular diseases I60-I69  | 31,833           | 8.2                      | 69.8                 |
| 4                 | Chronic lower respiratory diseases J40-J47  | 14,875           | 3.9                      | 32.6                 |
| 5                 | Unintentional injuries V01-X59, Y85-Y86   | 10,924           | 2.8                      | 24.0                 |
| 6                 | Alzheimer's disease G30   | 10,402           | 2.7                      | 22.8                 |
| 7                 | Diabetes mellitus E10-E14   | 10,153           | 2.6                      | 22.3                 |
| 8                 | Influenza and pneumonia J10-J18   | 9,272            | 2.4                      | 20.3                 |
| 9                 | Nephritis, nephrotic syndrome and nephrosis N00-N07, N17-N19, N25-N27                 | 6,786            | 1.8                      | 14.9                 |
| 10                | Chronic liver disease and cirrhosis K70, K73-K74                                      | 4,662            | 1.2                      | 10.2                 |
| 11                | Hypertensive disease I10, I12, I15  | 4,150            | 1.1                      | 9.1                  |
| 12                | Septicaemia A40-A41   | 4,136            | 1.1                      | 9.1                  |
| 13                | Suicide X60-X84+Y87.0   | 3,457            | 0.9                      | 7.6                  |
| 14                | Vascular disorders of the intestine K55   | 3,026            | 0.8                      | 6.6                  |
| 15                | Parkinson's disease G20-G21   | 2,633            | 0.7                      | 5.8                  |
| ...               | All other causes  | 89,165           | 23.1                     | 196.7                |

<sup>1</sup> Rank based on number of deaths

Changes in the age structure of the population can cause changes in the crude mortality rate by cause of death. Furthermore, these changes may be larger for some causes than for others depending on the mortality pattern by age for each cause of death. However, the age-adjusted mortality rate eliminates the influence of these changes in population age structure. This is why age-adjusted mortality rates are better indicators than crude mortality rates to show changes in mortality by cause of death over time. For this

reason, age-adjusted mortality rates are used to describe the trend in mortality from the leading causes of death.

The fact that age patterns of mortality differ among causes of death explains why the age-adjusted mortality rate for one cause of death can be higher than for another, even though the number of deaths in the first case is smaller than in the second. In general, this occurs when mortality rates at younger ages are higher in the first case than in the second.



**Table IV. Leading causes of death in Spain in 2008. Age-adjusted mortality rate per 100,000 population in 2008 and percentage change between 2007 and 2008 and between 2000 and 2008, by cause of death**

| Rank <sup>1</sup> | Cause of death (based on the International Classification of Diseases, 10th revision) | Age-adjusted mortality rate in 2008 | Percentage change between 2007 and 2008 | Percentage change between 2000 and 2008 |
|-------------------|---|-------------------------------------|---|---|
| ...               | All causes  | 519.7                               | -2.7                                    | -15.0                                   |
| 1                 | Cancer C00-C97  | 154.6                               | -1.6                                    | -9.2                                    |
| 2                 | Heart disease I00-I09, I11, I13, I20-I51  | 100.0                               | -3.6                                    | -20.2                                   |
| 3                 | Cerebrovascular diseases I60-I69  | 38.2                                | -6.4                                    | -31.7                                   |
| 4                 | Chronic lower respiratory diseases J40-J47  | 18.1                                | -7.5                                    | -29.2                                   |
| 5                 | Unintentional injuries V01-X59, Y85-Y86   | 18.8                                | -9.9                                    | -29.4                                   |
| 6                 | Alzheimer's disease G30   | 11.2                                | 0.8                                     | 43.9                                    |
| 7                 | Diabetes mellitus E10-E14   | 12.3                                | -3.0                                    | -14.5                                   |
| 8                 | Influenza and pneumonia J10-J18   | 10.9                                | 3.4                                     | -13.7                                   |
| 9                 | Nephritis, nephrotic syndrome and nephrosis N00-N07, N17-N19, N25-N27                 | 7.9                                 | -2.2                                    | -9.7                                    |
| 10                | Chronic liver disease and cirrhosis K70, K73-K74                                      | 8.4                                 | -6.8                                    | -22.1                                   |
| 11                | Hypertensive disease I10, I12, I15  | 4.8                                 | 1.8                                     | 23.4                                    |
| 12                | Septicaemia A40-A41   | 5.3                                 | 3.1                                     | 41.1                                    |
| 13                | Suicide X60-X84+Y87.0   | 6.5                                 | 6.0                                     | -10.9                                   |
| 14                | Vascular disorders of the intestine K55   | 3.6                                 | -2.6                                    | -3.2                                    |
| 15                | Parkinson's disease G20-G21   | 3.0                                 | -0.7                                    | 16.4                                    |

<sup>1</sup> Rank based on number of deaths

Between 2007 and 2008 the age-adjusted mortality rate from all causes of death declined by 2.7%. This reduced risk of mortality can be attributed primarily to the lower risk of mortality from cancer, heart disease, cerebrovascular diseases, chronic lower respiratory diseases and unintentional injuries.

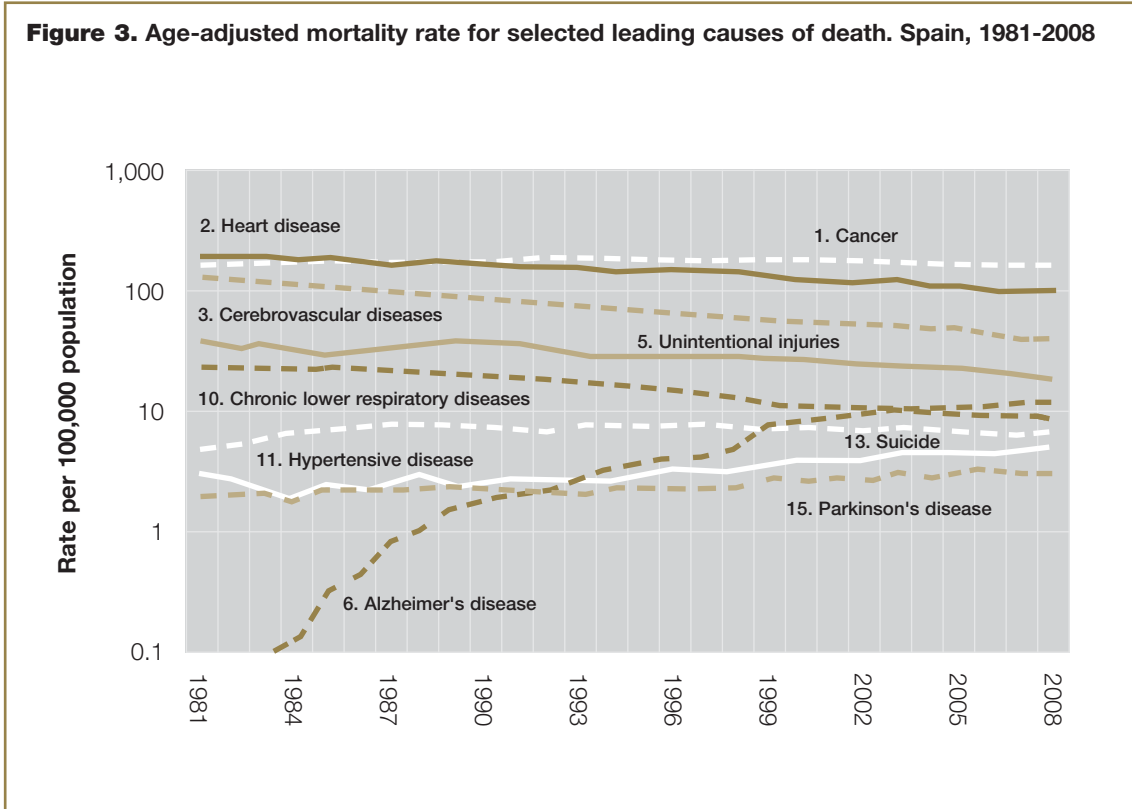
In table IV it can be seen that the age-adjusted mortality rate for 10 of the 15 leading causes of death declined in 2008 with respect to 2007. The five causes of death in which the age-adjusted mortality rate increased were Alzheimer's disease, influenza

and pneumonia, hypertensive diseases, septicaemia and suicide. However, the increased risk of mortality from pneumonia and influenza and from suicide can be considered a circumstantial phenomenon, since these causes of death have shown a downward trend in the past decade. Between 2000 and 2008 only 4 of the 15 leading causes of death showed an upward trend in the age-adjusted mortality rate: Alzheimer's disease, hypertensive diseases, septicaemia and Parkinson's disease.

Between 1981 and 2008, the age-adjusted mortality rate exhibited a downward trend,

except for Alzheimer's disease, hypertensive diseases, septicaemia, vascular disorders of the intestine, and Parkinson's disease (Figure 3). The most spectacular increase occurred in the case of Alzheimer's disease, which produced only 21 deaths in 1981,

whereas it produced 10,402 deaths in 2008. These figures mean that the age-adjusted mortality rate rose from 0.05 per 100,000 population in 1981 to 11.2 per 100,000 population in 2008.



The continual decline in mortality from communicable diseases throughout the 20th century in the developed countries has resulted in non-communicable diseases and accidents becoming the leading causes of death (7). Specifically, in the last decade of the past century, around 85% of deaths in these countries were caused by non-communicable diseases and, of these, three-fourths were due to cardiovascular diseases and cancer (8). This preponderance of non-communicable diseases stands in contrast to the downward trend that was observed for most of these

diseases in the last third of the previous century. In addition to the reduced mortality from cardiovascular diseases, which began in the late 1960s in some countries and during the 1970s in others (9-11), there was a decline in cancer mortality in the 1990s (12-14). Mortality from other chronic diseases like chronic obstructive pulmonary disease—chronic lower respiratory diseases—, diabetes mellitus or chronic liver disease and cirrhosis, has also experienced a decline since the last decade of the previous century in these countries (4, 15-16).

In any event, although the risk of mortality from these non-communicable disorders can be expected to continue declining in the developed countries, the burden of disease they produce may not decline equally, or may even remain stable, since most of these diseases occur in the elderly, and the population in these age groups is increasing. For example, cancer deaths in the Spanish population over age 74 in 1981 represented 31% of all deaths due to this cause of death, whereas in 2008 this percentage was 50%. Likewise, 55% of all deaths from heart disease were produced in this age group in 1981, but the proportion was 77% in 2008. For deaths from cerebrovascular diseases, these percentages in 1981 and 2008 were 66% and 81%, respectively. The progressive aging of the population, as a consequence of reduced mortality and the resulting increase in life expectancy, can be said to be the main reason for the importance of these diseases.

Of the 15 leading causes of death in Spain, 14 are similar to those seen in the United States of America (16). In the latter country homicide, rather than vascular disorders of the intestine, is among these causes. The hierarchical ranking is also similar, except for heart disease, which is the second leading cause of death in Spain and the first cause in the United States of America. The same as in Spain, cancer mortality is the leading cause of death in other countries of the European Union, as is the case in France, Italy, The Netherlands and Belgium. In contrast, heart disease is the leading cause of death in other European Union countries (17). This is because in many countries the mortality rate from ischaemic heart disease, which represents the leading cause of death among diseases of the heart, is relatively large: this

is the case in Sweden, Germany, Finland and, above all, the countries of Eastern Europe (17).

As previously noted, one of the most important findings of the present study is the impact of Alzheimer's disease on mortality, not only because it is the sixth leading cause of death, but because of the spectacular growth in mortality from this disease since 1981. Something similar has occurred in other countries (16). At least two factors can be identified as responsible for the increased mortality rate in Alzheimer's disease: first, an increase in the incidence and/or prevalence of the disease, and second, greater physician sensitivity to this disease, which has led to more frequent diagnosis of cognitive decline as Alzheimer's disease than in the past, or to more precise reporting of the disease as the underlying cause of death on death certificates.

The excess risk of mortality in one population group versus another can be expressed by the ratio. The ratio of age-adjusted mortality rates in men versus women shows that men have higher rates than women for 13 of the 15 leading causes of death, as can be seen in table V. Only in the case of Alzheimer's disease was the age-adjusted mortality rate higher in women than in men (the rate ratio was 0.76), whereas for hypertensive disease the rate was similar in the two sexes (the rate ratio was 1.03). The largest differences in the age-adjusted mortality rates for men versus women in 2008 were seen for chronic lower respiratory diseases (rate ratio of 4.92), suicide (rate ratio of 3.67), chronic liver disease and cirrhosis (rate ratio of 3.37), unintentional injuries (rate ratio of 2.97) and cancer (rate ratio of 2.17).

**Table V. Leading causes of death in Spain in 2008. Age-adjusted mortality rate ratio in men vs. Women in 2008 and 2000, by cause of death**

| Rank <sup>1</sup> | Cause of death (based on the International Classification of Diseases, 10th revision) | Male/female mortality rate ratio |      |
|-------------------|---|----------------------------------|------|
|                   |   | 2008                             | 2000 |
| ...               | All causes  | 1.76                             | 1.81 |
| 1                 | Cancer C00-C97  | 2.17                             | 2.26 |
| 2                 | Heart disease I00-I09, I11, I13, I20-I51  | 1.58                             | 1.60 |
| 3                 | Cerebrovascular diseases I60-I69  | 1.27                             | 1.22 |
| 4                 | Chronic lower respiratory diseases J40-J47  | 4.92                             | 4.70 |
| 5                 | Unintentional injuries V01-X59, Y85-Y86   | 2.97                             | 3.43 |
| 6                 | Alzheimer's disease G30   | 0.76                             | 0.84 |
| 7                 | Diabetes mellitus E10-E14   | 1.21                             | 1.06 |
| 8                 | Influenza and pneumonia J10-J18   | 1.96                             | 1.81 |
| 9                 | Nephritis, nephrotic syndrome and nephrosis N00-N07, N17-N19, N25-N27                 | 1.69                             | 1.63 |
| 10                | Chronic liver disease and cirrhosis K70, K73-K74                                      | 3.37                             | 2.93 |
| 11                | Hypertensive diseases I10, I12, I15   | 1.03                             | 0.86 |
| 12                | Septicaemia A40-A41   | 1.41                             | 1.41 |
| 13                | Suicide X60-X84+Y87.0   | 3.67                             | 3.49 |
| 14                | Vascular disorders of the intestine K55   | 1.29                             | 1.45 |
| 15                | Parkinson's disease G20-G21   | 1.69                             | 1.63 |

<sup>1</sup> Rank based on number of deaths

## Mortality and tobacco

The total number of deaths from all causes that have been shown to be related to tobacco is an indicator used by the WHO to monitor tobacco-related deaths (4). The causes of death included in this indicator are shown in the appendix on data sources and explanatory notes. In accordance with this indicator, 108,252 tobacco-related deaths were produced in Spain in 2008, and the age-adjusted mortality rate for these causes of

death declined by about 25% between 2000 and 2008, in both men and women (Table 7). However, this indicator overestimates the importance of this risk factor in mortality and makes it difficult to identify the trend from those causes of death most strongly related to tobacco consumption.

For this reason, an indicator has been constructed in this report that takes only lung cancer deaths into account, since 90% of these deaths are due to smoking. This indicator underestimates tobacco-related

deaths, but is more sensitive to the trend in these deaths. Indeed, deaths from this cause can be termed tobacco-attributable deaths. In 2008 there were 20,213 deaths from lung cancer, which was 221 more deaths than in 2007 (Table 8). This increase is due to a larger number of deaths in women, since deaths in men have declined.

This different trend in men and women is also seen in the age-adjusted mortality rates. Between 2000 and 2008 the age-adjusted mortality rate for smoking-attributable deaths decreased by 7% in men, whereas it increased by 44% in women. The increased lung cancer mortality observed in women reflects their late adoption of smoking, whereas the decline in smoking among men, which has been observed for some time now, has resulted in reduced lung cancer mortality. A consequence of this different trend is that the age-adjusted mortality rate, which was 10 times higher in men than women in 2000, was 6.5 times higher in 2008.

## Mortality and alcohol

The same as with smoking, the total number of deaths from all causes that have been shown to be related to alcohol consumption is an indicator used by WHO to monitor alcohol-related deaths (4). In 2008 there were 24,339 deaths related to alcohol consumption, and the age-adjusted mortality rate from these causes declined by 25% in men and by 21% in women between 2000 and 2008 (Table 9). However, as in the case of smoking, this indicator overestimates the importance of this risk factor in mortality and does not adequately identify the trend in those causes of death strongly attributed to alcohol consumption.

Accordingly, in this report we have also constructed an indicator that considers only

deaths directly attributable to alcohol consumption. Although it underestimates alcohol-related deaths, this indicator is more sensitive for the detection of the trend in these deaths. This indicator includes only those causes of death that are specifically described as due to alcohol in the International Classification of Diseases, 10th revision. The causes of death included are shown in the appendix on data sources and explanatory notes. According to this indicator, there were 1,626 alcohol-attributable deaths in 2008, very similar to the number in previous years (Table 10). The age-adjusted mortality rate in the past decade for these causes of death has remained practically stable, and is around 6 times higher in men than in women.

## Mortality related with the quality of the health system

Deaths from some causes can be considered as sentinel indicators of the quality of the health system. In this report we have selected three such causes that are used by WHO: deaths from abdominal hernia, appendicitis and adverse effects of medicaments (Tables 11, 12 y 13). In 2008 there were 2,269 deaths from abdominal hernia, which is 151 more deaths than in 2007. Since the year 2000, when 1,627 abdominal hernia deaths occurred, a continual increase in the number of deaths from this disease has been observed. Conversely, the number of deaths from appendicitis has remained practically stable in recent years – a median of 68 in the last five years – with 66 deaths in 2008. Finally, the number of deaths due to adverse effects of medicaments has exhibited a downward trend in the last decade: it peaked at 264 deaths in 2003, but fell to 119 in 2008.

## Infant mortality

In 2008 there were 1,741 deaths in children under 1 year of age, which is 37 fewer deaths than in 2007. This figure is very similar to that observed over the last five years when the median was 1,741, exactly the same as the number of deaths produced in 2008. The infant mortality rate in 2008 was 3.3 deaths per 1,000 live births, 3.2% lower than in 2007 and 23.5% lower than in 2000 (Table VI and Table 17). This is lower than the

mean rate for the European Union, which was 4.35 per 1,000 live births in 2008 (4). Since the beginning of the 20th century the infant mortality rate has shown a downward trend in Spain, and since 1940 the rate has gone down every year. In 2008 the neonatal mortality rate was 2.1 deaths per 1,000 live births, and the post-neonatal mortality rate was 1.2 deaths per 1,000 live births. The downward trend in the present decade has been similar for both of these rates: a 23.5% decline since the year 2000 (Figure 4).

**Table VI. Number of infant, neonatal and postneonatal deaths in Spain in 2008. Infant, neonatal and postneonatal mortality rate<sup>1</sup> and percentage change between 2007 and 2008 and between 2000 and 2008**

|              | Number | Rate | Rate                                    |   |
|--------------|--------|------|---|---|
|              |        |      | Percentage change between 2007 and 2008 | Percentage change between 2000 and 2008 |
| Infant       | 1,741  | 3.3  | -3.2                                    | -23.5                                   |
| Neonatal     | 1,114  | 2.1  | -5.8                                    | -23.5                                   |
| Postneonatal | 627    | 1.2  | 1.7                                     | -23.4                                   |

<sup>1</sup> Rate per 1,000 live births

**Figure 4. Infant, neonatal, and postneonatal mortality rates. Spain, 1981-2008**

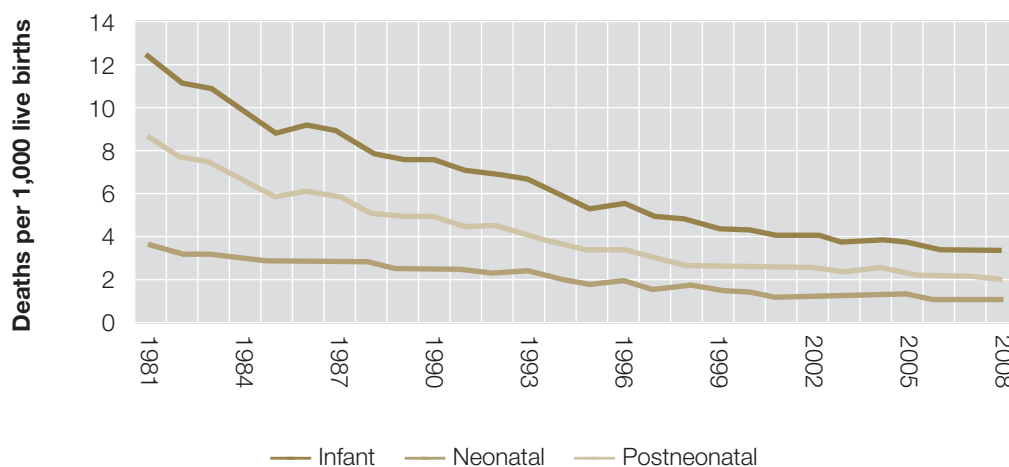


Table VII shows that the 10 leading causes of infant death in 2008 produced 65% of all deaths in children under 1 year of age in Spain. These 10 causes of death, ordered by number of deaths, are as follows: 1) congenital malformations, deformations and chromosomal abnormalities, 2) disorders related to short gestation and low birth weight, 3) bacterial sepsis of newborn, 4) necrotizing enterocolitis of fetus or newborn, 5) sudden infant death syndrome, 6) fetus and newborn affected by maternal complications of pregnancy, 7) neonatal haemorrhage, 8) intrauterine hypoxia and birth asphyxia, 9) respiratory distress of newborn and 10) unintentional injuries.

Much of the decline in the infant mortality rate in the present decade is due to the reduction in deaths from congenital

malformations, deformations and chromosomal abnormalities, which represent one-fourth of all deaths in children under age 1. Specifically, the infant mortality rate from this cause of death fell by 38% between 2000 and 2008. Of the remaining 10 leading causes of death, the most notable declines in infant mortality rate occurred for respiratory distress of newborn, which decreased by 60% between 2000 and 2008, and neonatal haemorrhage, which fell by 44% between 2000 and 2008, as shown in table VIII and in table 18. Between 2000 and 2008 infant mortality increased for only three of the 10 leading causes of death in children under 1 year: disorders related to short gestation and low birth weight, necrotizing enterocolitis of fetus or newborn, and unintentional injuries.

**Table VII. Leading causes of death in children under 1 year in Spain in 2008. Number of deaths, percentage of all deaths and infant mortality rate<sup>1</sup>, by cause of death**

| Rank <sup>2</sup> | Cause of death (based on the International Classification of Diseases, 10th revision) | Number of deaths | Percentage of all deaths | Rate  |
|-------------------|---|------------------|--------------------------|-------|
| ...               | All causes  | 1,741            | 100.0                    | 335.0 |
| 1                 | Congenital malformations, deformations and chromosomal abnormalities Q00-Q99          | 466              | 26.8                     | 89.7  |
| 2                 | Disorders relating to short gestation and low birth weight P07                        | 137              | 7.9                      | 26.4  |
| 3                 | Bacterial sepsis of newborn P36   | 115              | 6.6                      | 22.1  |
| 4                 | Necrotizing enterocolitis of fetus or newborn P77                                     | 73               | 4.2                      | 14.0  |
| 5                 | Sudden infant death syndrome R95  | 72               | 4.1                      | 13.9  |
| 6                 | Fetus and newborn affected by maternal complications of pregnancy P01                 | 63               | 3.6                      | 12.1  |
| 7                 | Neonatal haemorrhage P50-P52, P54   | 59               | 3.4                      | 11.4  |
| 8                 | Intrauterine hypoxia and birth asphyxia P20-P21                                       | 53               | 3.0                      | 10.2  |
| 9                 | Respiratory distress of newborn P22   | 49               | 2.8                      | 9.4   |
| 10                | Unintentional injuries V01-X59  | 44               | 2.5                      | 8.5   |
| ...               | All other causes  | 610              | 35.0                     | 117.4 |

<sup>1</sup> Mortality rate per 100.000 live births

<sup>2</sup> Rank based on number of deaths

**Table VIII. Percentage change in the infant mortality rate from the leading causes of death in children under 1 year of age in Spain between 2007 and 2008 and between 2000 and 2008**

| Rank <sup>1</sup> | Cause of death (based on the International Classification of Diseases, 10th revision) | Percentage change between 2007 and 2008 | Percentage change between 2000 and 2008 |
|-------------------|---|---|---|
| ...               | All causes  | -3.2                                    | -23.5                                   |
| 1                 | Congenital malformations, deformations and chromosomal abnormalities Q00-Q99          | 2.5                                     | -38.0                                   |
| 2                 | Disorders relating to short gestation and low birth weight P07                        | 15.9                                    | 12.7                                    |
| 3                 | Bacterial sepsis of newborn P36   | -19.3                                   | -5.4                                    |
| 4                 | Necrotizing enterocolitis of fetus or newborn P77                                     | 6.4                                     | 59.6                                    |
| 5                 | Sudden infant death syndrome R95  | 15.6                                    | -21.3                                   |
| 6                 | Fetus and newborn affected by maternal complications of pregnancy P01                 | 10.5                                    | -12.4                                   |
| 7                 | Neonatal haemorrhage P50-P52, P54   | -40.5                                   | -44.3                                   |
| 8                 | Intrauterine hypoxia and birth asphyxia P20-P21                                       | 6.9                                     | -41.2                                   |
| 9                 | Respiratory distress of newborn P22   | -36.4                                   | -60.1                                   |
| 10                | Unintentional injuries V01-X59  | 54.4                                    | 5.2                                     |

<sup>1</sup> Rank based on number of deaths



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**All causes of death**

**Table 1. Number of deaths, crude mortality rate and age-adjusted mortality rate, by sex. Spain, 1981-2008**

| Year | Deaths     |         |         | Crude mortality rate |       |       | Age-adjusted mortality rate |         |       |
|------|------------|---------|---------|----------------------|-------|-------|-----------------------------|---------|-------|
|      | Both sexes | Men     | Women   | Both sexes           | Men   | Women | Both sexes                  | Men     | Women |
| 1981 | 293,386    | 154,437 | 138,949 | 777.1                | 833.6 | 722.7 | 804.7                       | 1,022.5 | 636.2 |
| 1982 | 286,655    | 151,048 | 135,607 | 754.9                | 810.5 | 701.3 | 767.6                       | 978.9   | 604.5 |
| 1983 | 302,569    | 158,375 | 144,194 | 792.8                | 845.6 | 742.0 | 790.0                       | 1,004.4 | 624.1 |
| 1984 | 299,409    | 158,515 | 140,894 | 781.1                | 842.7 | 721.8 | 761.8                       | 980.4   | 592.1 |
| 1985 | 312,532    | 164,834 | 147,698 | 812.3                | 873.1 | 753.7 | 775.3                       | 998.3   | 601.7 |
| 1986 | 310,413    | 162,961 | 147,452 | 804.0                | 860.3 | 749.9 | 751.7                       | 964.3   | 584.8 |
| 1987 | 310,073    | 163,891 | 146,182 | 800.8                | 862.6 | 741.3 | 733.1                       | 946.2   | 565.6 |
| 1988 | 319,437    | 168,734 | 150,703 | 823.1                | 885.9 | 762.5 | 737.6                       | 955.5   | 566.5 |
| 1989 | 324,796    | 172,364 | 152,432 | 835.2                | 903.1 | 769.7 | 732.8                       | 954.3   | 557.5 |
| 1990 | 333,142    | 176,779 | 156,363 | 857.4                | 928.8 | 788.9 | 726.2                       | 952.0   | 548.2 |
| 1991 | 337,691    | 179,344 | 158,347 | 867.2                | 940.4 | 796.9 | 717.8                       | 942.7   | 539.1 |
| 1992 | 331,515    | 177,087 | 154,428 | 848.5                | 925.4 | 774.7 | 689.0                       | 910.6   | 512.0 |
| 1993 | 339,661    | 180,512 | 159,149 | 866.7                | 940.4 | 795.9 | 687.7                       | 907.8   | 512.4 |
| 1994 | 338,242    | 179,924 | 158,318 | 860.7                | 934.8 | 789.6 | 668.7                       | 885.4   | 495.8 |
| 1995 | 346,227    | 184,488 | 161,739 | 879.0                | 956.4 | 804.7 | 667.3                       | 886.8   | 492.0 |
| 1996 | 351,449    | 186,901 | 164,548 | 890.2                | 966.7 | 816.7 | 661.0                       | 879.9   | 485.8 |
| 1997 | 349,521    | 185,095 | 164,426 | 883.0                | 954.9 | 813.9 | 639.6                       | 851.0   | 471.7 |
| 1998 | 360,511    | 190,218 | 170,293 | 907.5                | 978.0 | 839.9 | 640.9                       | 853.3   | 472.3 |
| 1999 | 371,102    | 195,255 | 175,847 | 929.4                | 998.8 | 862.8 | 643.2                       | 856.2   | 473.6 |
| 2000 | 360,391    | 189,468 | 170,923 | 895.0                | 960.8 | 831.9 | 611.4                       | 812.5   | 450.1 |
| 2001 | 360,131    | 189,714 | 170,417 | 884.3                | 950.6 | 820.7 | 595.7                       | 793.9   | 437.1 |
| 2002 | 368,618    | 193,269 | 175,349 | 892.2                | 953.6 | 833.0 | 592.7                       | 787.3   | 435.9 |
| 2003 | 384,828    | 199,897 | 184,931 | 916.1                | 969.1 | 865.0 | 600.0                       | 791.6   | 445.3 |
| 2004 | 371,934    | 194,928 | 177,006 | 871.2                | 928.7 | 815.5 | 565.2                       | 749.9   | 415.7 |
| 2005 | 387,355    | 201,769 | 185,586 | 892.5                | 944.2 | 842.3 | 568.4                       | 751.4   | 419.5 |
| 2006 | 371,478    | 194,154 | 177,324 | 842.9                | 893.6 | 793.6 | 532.3                       | 704.1   | 391.6 |
| 2007 | 385,361    | 201,136 | 184,225 | 858.7                | 907.8 | 810.9 | 533.9                       | 705.2   | 393.9 |
| 2008 | 386,324    | 199,647 | 186,677 | 847.3                | 886.8 | 808.7 | 519.7                       | 681.0   | 387.1 |

Rates are expressed per 100,000 population of both sexes, per 100,000 men or per 100,000 women

**Table 2. Number of deaths and crude mortality rate, by sex and age. Spain, 2008**

|             | Deaths     |         |         | Mortality rate |          |          |
|-------------|------------|---------|---------|----------------|----------|----------|
|             | Both sexes | Men     | Women   | Both sexes     | Men      | Women    |
| All ages    | 386,324    | 199,647 | 186,677 | 847.3          | 886.8    | 808.7    |
| < 1         | 1,741      | 989     | 752     | 352.3          | 388.6    | 313.7    |
| 1-4         | 345        | 182     | 163     | 18.1           | 18.6     | 17.6     |
| 5-9         | 252        | 160     | 92      | 11.4           | 14.0     | 8.5      |
| 10-14       | 248        | 144     | 104     | 11.8           | 13.4     | 10.2     |
| 15-19       | 751        | 528     | 223     | 32.9           | 45.0     | 20.1     |
| 20-24       | 1,090      | 829     | 261     | 39.5           | 58.8     | 19.3     |
| 25-29       | 1,543      | 1,164   | 379     | 42.7           | 62.6     | 21.6     |
| 30-34       | 2,141      | 1,540   | 601     | 52.6           | 73.0     | 30.7     |
| 35-39       | 3,259      | 2,230   | 1,029   | 84.2           | 111.7    | 54.8     |
| 40-44       | 5,205      | 3,532   | 1,673   | 142.7          | 190.8    | 93.1     |
| 45-49       | 7,703      | 5,272   | 2,431   | 231.6          | 316.6    | 146.3    |
| 50-54       | 10,168     | 7,039   | 3,129   | 353.4          | 494.6    | 215.2    |
| 55-59       | 13,026     | 9,130   | 3,896   | 512.2          | 734.3    | 299.7    |
| 60-64       | 17,866     | 12,760  | 5,106   | 760.9          | 1,129.1  | 419.2    |
| 65-69       | 20,982     | 14,531  | 6,451   | 1,092.0        | 1,602.9  | 635.6    |
| 70-74       | 35,487     | 22,924  | 12,563  | 1,908.2        | 2,730.8  | 1,231.3  |
| 75-79       | 55,521     | 32,641  | 22,880  | 3,316.7        | 4,576.5  | 2,381.5  |
| 80-84       | 72,103     | 36,210  | 35,893  | 6,103.3        | 7,911.6  | 4,959.6  |
| 85 and over | 136,893    | 47,842  | 89,051  | 14,563.8       | 15,975.8 | 13,903.7 |

Rates are expressed per 100,000 population of both sexes, per 100,000 men or per 100,000 women

**Table 3. Mortality rate by age and age-adjusted mortality rate for the 15 leading causes of death, Spain, 2000-2008**

| Cause of death (based on ICD, 10th revision) | All ages | Age   |      |      |       |       |       |       |       |         |         | Age-adjusted rate |             |
|--|----------|-------|------|------|-------|-------|-------|-------|-------|---------|---------|-------------------|-------------|
|  |          | < 1   | 1-4  | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74   | 75-84   |                   | 85 and over |
| All causes                                   |          |       |      |      |       |       |       |       |       |         |         |                   |             |
| 2000   | 895.1    | 448.2 | 26.0 | 16.2 | 54.6  | 79.6  | 154.0 | 321.2 | 723.6 | 1,828.3 | 5,154.6 | 15,962.7          | 611.5       |
| 2001   | 884.4    | 410.3 | 24.6 | 15.0 | 49.7  | 75.8  | 146.7 | 318.0 | 707.2 | 1,788.2 | 4,999.5 | 15,675.4          | 595.8       |
| 2002   | 892.2    | 419.4 | 25.4 | 14.8 | 50.0  | 72.0  | 143.7 | 317.2 | 681.1 | 1,764.4 | 5,023.3 | 15,911.0          | 592.7       |
| 2003   | 916.2    | 403.4 | 27.2 | 14.7 | 50.9  | 69.9  | 143.3 | 313.7 | 682.6 | 1,767.3 | 5,083.2 | 16,662.4          | 600.1       |
| 2004   | 871.2    | 406.5 | 22.4 | 13.1 | 45.8  | 63.7  | 134.1 | 308.4 | 662.6 | 1,672.6 | 4,838.8 | 15,273.8          | 565.2       |
| 2005   | 892.6    | 388.0 | 21.7 | 12.5 | 44.8  | 59.2  | 130.2 | 299.0 | 662.7 | 1,684.1 | 4,944.4 | 15,643.2          | 568.5       |
| 2006   | 843.0    | 368.5 | 19.9 | 12.1 | 40.0  | 54.2  | 124.1 | 293.3 | 642.6 | 1,584.2 | 4,555.7 | 14,416.9          | 532.3       |
| 2007   | 858.8    | 357.0 | 20.8 | 11.9 | 38.7  | 51.7  | 120.4 | 289.7 | 647.5 | 1,574.5 | 4,591.8 | 14,718.8          | 534.0       |
| 2008   | 847.3    | 352.3 | 18.2 | 11.6 | 36.5  | 48.0  | 112.6 | 288.1 | 631.6 | 1,493.5 | 4,469.7 | 14,563.9          | 519.7       |
| Cancer (C00-C97)                             |          |       |      |      |       |       |       |       |       |         |         |                   |             |
| 2000   | 228.1    | 1.0   | 3.3  | 3.2  | 5.2   | 9.9   | 44.3  | 146.7 | 339.9 | 700.6   | 1,229.9 | 1,850.5           | 170.3       |
| 2001   | 231.7    | 2.5   | 2.6  | 3.4  | 4.7   | 10.1  | 41.1  | 145.5 | 342.4 | 703.4   | 1,251.8 | 1,872.3           | 171.1       |
| 2002   | 228.8    | 3.6   | 3.6  | 3.1  | 5.5   | 9.2   | 40.2  | 144.6 | 331.8 | 687.3   | 1,235.0 | 1,835.3           | 167.7       |
| 2003   | 229.7    | 3.3   | 3.7  | 3.5  | 4.9   | 9.3   | 39.3  | 141.5 | 331.7 | 688.5   | 1,228.4 | 1,867.8           | 167.1       |
| 2004   | 227.5    | 2.5   | 2.7  | 2.8  | 4.5   | 8.8   | 36.2  | 141.1 | 332.0 | 673.3   | 1,226.5 | 1,800.4           | 164.2       |
| 2005   | 222.9    | 3.7   | 2.7  | 3.2  | 4.4   | 8.2   | 36.1  | 133.0 | 323.9 | 662.3   | 1,197.7 | 1,732.2           | 159.7       |
| 2006   | 223.1    | 2.6   | 2.3  | 3.5  | 4.5   | 7.9   | 34.7  | 131.5 | 321.4 | 659.8   | 1,184.6 | 1,753.3           | 158.4       |
| 2007   | 222.8    | 2.1   | 3.6  | 3.1  | 4.2   | 7.8   | 31.9  | 130.7 | 322.7 | 647.3   | 1,185.0 | 1,761.2           | 157.1       |
| 2008   | 220.8    | 2.8   | 2.7  | 2.5  | 4.8   | 7.3   | 30.9  | 128.5 | 321.9 | 623.2   | 1,174.0 | 1,763.8           | 154.6       |
| Heart disease (I00-I09, I11, I13, I20-I51)   |          |       |      |      |       |       |       |       |       |         |         |                   |             |
| 2000   | 194.0    | 2.6   | 0.9  | 0.5  | 1.6   | 4.2   | 16.7  | 47.7  | 125.7 | 375.6   | 1,172.1 | 4,179.1           | 65.4        |
| 2001   | 189.6    | 2.2   | 0.7  | 0.5  | 1.7   | 4.2   | 14.1  | 46.9  | 118.5 | 352.0   | 1,128.4 | 4,107.9           | 62.6        |
| 2002   | 191.4    | 2.7   | 0.7  | 0.6  | 1.8   | 4.1   | 15.0  | 45.8  | 111.0 | 344.1   | 1,131.7 | 4,167.2           | 61.7        |
| 2003   | 194.7    | 3.5   | 0.4  | 0.4  | 1.5   | 3.9   | 14.6  | 43.2  | 112.6 | 343.3   | 1,129.0 | 4,281.4           | 61.5        |
| 2004   | 185.3    | 2.9   | 0.9  | 0.5  | 1.7   | 3.6   | 13.8  | 43.6  | 104.6 | 318.2   | 1,075.6 | 3,966.9           | 57.3        |
| 2005   | 187.8    | 3.3   | 0.2  | 0.3  | 1.6   | 3.8   | 13.2  | 42.4  | 105.2 | 316.0   | 1,075.3 | 4,007.9           | 56.3        |
| 2006   | 176.0    | 2.8   | 0.6  | 0.5  | 1.4   | 2.9   | 13.7  | 41.6  | 98.9  | 289.9   | 986.3   | 3,680.4           | 51.9        |
| 2007   | 179.5    | 3.8   | 0.4  | 0.4  | 1.6   | 3.6   | 12.6  | 38.9  | 99.4  | 287.6   | 979.6   | 3,784.3           | 50.4        |
| 2008   | 175.8    | 2.6   | 0.6  | 0.5  | 1.7   | 3.2   | 11.7  | 39.4  | 94.4  | 266.9   | 947.8   | 3,691.7           | 47.4        |

Rates are per 100,000 population in each specific group

**Table 3. Mortality rate by age and age-adjusted mortality rate for the 15 leading causes of death, Spain, 2000-2008 (continued)**

| Cause of death (based on ICD, 10th revision) | All ages | Age |     |      |       |       |       |       |       |       |       | Age-adjusted rate |             |
|--|----------|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-------------------|-------------|
|  |          | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 |                   | 85 and over |
| Cerebrovascular diseases (I60-I69)           |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000   | 90.9     | 0.3 | 0.1 | 0.2  | 0.6   | 1.6   | 4.3   | 13.3  | 37.5  | 139.2 | 613.9 | 2,184.8           | 56.0        |
| 2001   | 89.8     | 0.2 | 0.2 | 0.3  | 0.4   | 1.3   | 5.1   | 12.8  | 35.2  | 138.0 | 585.6 | 2,147.3           | 54.4        |
| 2002   | 87.0     | 1.2 | 0.3 | 0.4  | 0.6   | 1.6   | 4.7   | 12.4  | 32.5  | 130.7 | 557.4 | 2,076.1           | 52.0        |
| 2003   | 88.6     | 1.4 | 0.4 | 0.2  | 0.5   | 1.3   | 4.4   | 13.1  | 30.2  | 127.7 | 563.5 | 2,125.5           | 52.0        |
| 2004   | 80.2     | 0.9 | 0.0 | 0.2  | 0.6   | 1.3   | 4.0   | 11.4  | 29.0  | 118.7 | 507.9 | 1,847.8           | 46.5        |
| 2005   | 80.1     | 0.9 | 0.3 | 0.2  | 0.6   | 1.2   | 3.9   | 11.7  | 30.4  | 115.5 | 504.1 | 1,794.3           | 45.7        |
| 2006   | 74.7     | 0.4 | 0.2 | 0.1  | 0.4   | 1.0   | 4.5   | 11.4  | 29.5  | 106.0 | 449.4 | 1,663.6           | 42.0        |
| 2007   | 73.6     | 1.3 | 0.1 | 0.3  | 0.5   | 1.0   | 4.0   | 11.4  | 27.7  | 105.0 | 441.3 | 1,598.0           | 40.8        |
| 2008   | 69.8     | 0.0 | 0.4 | 0.4  | 0.5   | 1.3   | 3.5   | 11.3  | 26.1  | 95.7  | 409.2 | 1,504.2           | 38.2        |
| Chronic lower respiratory diseases (J40-J47) |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000   | 41.3     | 0.0 | 0.1 | 0.0  | 0.3   | 0.2   | 1.0   | 3.3   | 18.6  | 88.5  | 309.5 | 775.3             | 25.5        |
| 2001   | 37.4     | 0.0 | 0.1 | 0.1  | 0.2   | 0.4   | 0.8   | 3.3   | 16.5  | 78.0  | 273.2 | 702.7             | 22.8        |
| 2002   | 40.8     | 0.0 | 0.2 | 0.1  | 0.1   | 0.4   | 0.7   | 4.1   | 16.4  | 85.9  | 296.0 | 751.2             | 24.5        |
| 2003   | 40.7     | 0.0 | 0.1 | 0.1  | 0.3   | 0.3   | 0.9   | 3.8   | 16.1  | 80.7  | 289.5 | 775.1             | 24.0        |
| 2004   | 36.3     | 0.0 | 0.1 | 0.0  | 0.1   | 0.3   | 0.7   | 3.3   | 14.1  | 70.2  | 260.9 | 676.5             | 21.1        |
| 2005   | 40.6     | 0.0 | 0.0 | 0.0  | 0.3   | 0.3   | 0.6   | 3.4   | 16.4  | 80.2  | 288.1 | 730.7             | 23.3        |
| 2006   | 32.5     | 0.0 | 0.1 | 0.1  | 0.2   | 0.3   | 0.5   | 2.6   | 12.6  | 60.7  | 223.5 | 603.6             | 18.3        |
| 2007   | 35.0     | 0.2 | 0.1 | 0.1  | 0.2   | 0.2   | 0.5   | 3.1   | 14.0  | 66.8  | 239.6 | 620.3             | 19.5        |
| 2008   | 32.6     | 0.2 | 0.1 | 0.1  | 0.2   | 0.3   | 0.6   | 3.0   | 13.5  | 59.6  | 211.7 | 600.7             | 18.1        |
| Unintentional injuries (V01-X59, Y85-Y86)    |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000   | 30.5     | 8.2 | 7.0 | 6.0  | 31.9  | 31.2  | 27.1  | 25.3  | 27.6  | 37.4  | 64.1  | 155.9             | 35.7        |
| 2001   | 29.1     | 7.7 | 6.7 | 4.0  | 28.1  | 29.0  | 25.9  | 24.8  | 26.3  | 36.1  | 65.6  | 157.1             | 33.7        |
| 2002   | 28.0     | 7.2 | 6.2 | 4.1  | 27.1  | 27.5  | 23.5  | 22.8  | 26.4  | 36.5  | 61.5  | 158.0             | 32.9        |
| 2003   | 28.9     | 9.5 | 6.6 | 4.4  | 28.4  | 26.3  | 23.6  | 22.2  | 25.5  | 38.6  | 68.5  | 182.7             | 33.6        |
| 2004   | 28.8     | 7.8 | 5.4 | 4.0  | 24.5  | 23.9  | 22.2  | 21.5  | 24.5  | 35.5  | 77.7  | 233.0             | 32.9        |
| 2005   | 28.8     | 6.6 | 4.9 | 3.6  | 24.0  | 21.9  | 21.7  | 21.3  | 24.0  | 37.0  | 83.0  | 240.1             | 31.7        |
| 2006   | 27.3     | 4.8 | 4.4 | 3.0  | 21.1  | 20.5  | 20.5  | 19.7  | 22.8  | 34.4  | 78.6  | 242.3             | 29.5        |
| 2007   | 26.4     | 5.7 | 4.9 | 2.9  | 19.8  | 18.9  | 20.2  | 18.9  | 21.8  | 33.0  | 73.6  | 242.6             | 28.4        |
| 2008   | 24.0     | 8.9 | 4.2 | 2.9  | 16.7  | 15.5  | 17.6  | 18.2  | 20.2  | 29.2  | 72.1  | 217.9             | 26.8        |

Rates are per 100,000 population in each specific group

**Table 3. Mortality rate by age and age-adjusted mortality rate for the 15 leading causes of death, Spain, 2000-2008 (continued)**

| Cause of death (based on ICD, 10th revision) | All ages | Age |     |      |       |       |       |       |       |       |       | Age-adjusted rate |             |
|--|----------|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-------------------|-------------|
|  |          | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 |                   | 85 and over |
| Alzheimer's disease (G30)                    |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000   | 13.4     | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 2.4   | 18.1  | 110.1 | 310.6             | 7.8         |
| 2001   | 15.4     | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.2   | 2.1   | 19.7  | 128.0 | 350.2 | 8.8               |             |
| 2002   | 16.5     | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.2   | 1.8   | 19.8  | 131.9 | 386.2 | 9.2               |             |
| 2003   | 19.9     | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 2.1   | 22.4  | 156.0 | 470.7 | 10.9              |             |
| 2004   | 18.8     | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.2   | 2.0   | 19.8  | 141.6 | 453.6 | 10.1              |             |
| 2005   | 20.7     | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 2.0   | 18.6  | 153.1 | 508.0 | 10.8              |             |
| 2006   | 20.8     | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.2   | 2.2   | 18.8  | 151.4 | 495.7 | 10.6              |             |
| 2007   | 22.2     | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 2.2   | 18.8  | 155.7 | 531.8 | 11.1              |             |
| 2008   | 22.8     | 0.0 | 0.0 | 0.0  | 0.0   | 0.1   | 0.1   | 2.0   | 17.2  | 153.1 | 560.8 | 11.2              |             |
| Diabetes mellitus (E10-E14)                  |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000   | 23.0     | 0.3 | 0.0 | 0.0  | 0.0   | 0.4   | 0.9   | 2.6   | 12.7  | 47.3  | 164.4 | 444.4             | 14.4        |
| 2001   | 23.5     | 0.0 | 0.1 | 0.0  | 0.1   | 0.4   | 0.8   | 2.7   | 11.5  | 48.6  | 163.5 | 459.0             | 14.5        |
| 2002   | 23.6     | 0.0 | 0.0 | 0.0  | 0.0   | 0.2   | 0.8   | 3.2   | 10.8  | 45.8  | 160.9 | 475.0             | 14.3        |
| 2003   | 24.0     | 0.2 | 0.1 | 0.0  | 0.0   | 0.2   | 0.7   | 3.0   | 10.6  | 47.4  | 158.6 | 489.3             | 14.4        |
| 2004   | 23.3     | 0.0 | 0.1 | 0.0  | 0.1   | 0.2   | 0.7   | 2.7   | 10.7  | 42.6  | 157.1 | 466.6             | 13.7        |
| 2005   | 23.8     | 0.0 | 0.0 | 0.0  | 0.0   | 0.1   | 0.7   | 2.7   | 11.2  | 44.3  | 155.3 | 470.3             | 13.8        |
| 2006   | 22.0     | 0.0 | 0.0 | 0.0  | 0.0   | 0.2   | 0.6   | 2.9   | 10.0  | 38.1  | 143.1 | 427.1             | 12.5        |
| 2007   | 22.6     | 0.0 | 0.0 | 0.0  | 0.0   | 0.1   | 0.6   | 2.4   | 10.5  | 39.9  | 145.4 | 433.0             | 12.7        |
| 2008   | 22.3     | 0.0 | 0.0 | 0.0  | 0.1   | 0.2   | 0.7   | 2.4   | 9.4   | 37.9  | 140.1 | 429.8             | 12.3        |
| Influenza and pneumonia (J10-J18)            |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000   | 20.6     | 3.3 | 0.3 | 0.1  | 0.2   | 0.5   | 1.8   | 2.5   | 6.8   | 25.0  | 124.5 | 582.8             | 12.7        |
| 2001   | 17.6     | 0.5 | 0.3 | 0.1  | 0.3   | 0.6   | 1.4   | 3.0   | 6.0   | 21.1  | 102.3 | 487.3             | 10.7        |
| 2002   | 19.9     | 2.2 | 0.3 | 0.1  | 0.3   | 0.6   | 1.5   | 2.8   | 6.5   | 23.7  | 112.3 | 551.4             | 11.9        |
| 2003   | 19.9     | 2.6 | 0.6 | 0.2  | 0.3   | 0.6   | 1.6   | 3.5   | 5.7   | 24.3  | 112.5 | 536.1             | 11.7        |
| 2004   | 17.4     | 0.9 | 0.3 | 0.1  | 0.1   | 0.5   | 1.1   | 2.5   | 5.4   | 19.6  | 98.0  | 471.9             | 10.0        |
| 2005   | 22.7     | 1.5 | 0.5 | 0.1  | 0.3   | 0.6   | 1.7   | 3.0   | 6.2   | 25.4  | 127.0 | 601.0             | 12.8        |
| 2006   | 17.8     | 2.4 | 0.5 | 0.1  | 0.2   | 0.4   | 1.3   | 2.5   | 6.2   | 19.8  | 94.5  | 462.8             | 10.0        |
| 2007   | 19.3     | 1.5 | 0.3 | 0.1  | 0.3   | 0.5   | 1.5   | 2.9   | 6.0   | 21.0  | 100.1 | 492.7             | 10.6        |
| 2008   | 20.3     | 1.2 | 0.4 | 0.1  | 0.4   | 0.4   | 1.5   | 3.2   | 6.4   | 20.5  | 106.5 | 507.4             | 10.9        |

Rates are per 100,000 population in each specific group



**Table 3. Mortality rate by age and age-adjusted mortality rate for the 15 leading causes of death, Spain, 2000-2008 (continued)**

| Cause of death (based on ICD, 10th revision)                            | All ages | Age |     |      |       |       |       |       |       |       |       | Age-adjusted rate |             |
|---|----------|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-------------------|-------------|
|   |          | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 |                   | 85 and over |
| Nephritis, nephrotic syndrome and nephrosis (N00-N07, N17-N19, N25-N27) |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000  | 14.0     | 0.3 | 0.0 | 0.0  | 0.2   | 0.2   | 0.7   | 1.9   | 6.4   | 24.6  | 93.1  | 321.5             | 8.7         |
| 2001  | 14.1     | 0.7 | 0.1 | 0.0  | 0.1   | 0.2   | 0.6   | 1.6   | 6.3   | 24.4  | 89.5  | 331.6             | 8.6         |
| 2002  | 14.1     | 0.5 | 0.1 | 0.0  | 0.0   | 0.2   | 0.7   | 1.7   | 5.7   | 23.3  | 88.4  | 329.7             | 8.5         |
| 2003  | 14.2     | 0.0 | 0.1 | 0.0  | 0.1   | 0.1   | 0.6   | 1.8   | 5.0   | 22.4  | 87.9  | 344.2             | 8.4         |
| 2004  | 13.5     | 0.2 | 0.0 | 0.0  | 0.1   | 0.1   | 0.5   | 1.4   | 5.0   | 21.0  | 85.1  | 315.1             | 7.8         |
| 2005  | 14.9     | 0.9 | 0.1 | 0.0  | 0.1   | 0.2   | 0.6   | 1.5   | 5.0   | 21.9  | 91.8  | 347.6             | 8.4         |
| 2006  | 13.9     | 0.2 | 0.0 | 0.0  | 0.0   | 0.2   | 0.4   | 1.4   | 4.7   | 19.1  | 83.9  | 326.8             | 7.7         |
| 2007  | 14.8     | 0.4 | 0.1 | 0.0  | 0.0   | 0.1   | 0.5   | 1.4   | 5.0   | 19.6  | 87.1  | 345.7             | 8.1         |
| 2008  | 14.9     | 0.4 | 0.1 | 0.0  | 0.1   | 0.2   | 0.3   | 1.5   | 4.5   | 17.5  | 85.1  | 355.3             | 7.9         |
| Chronic liver disease and cirrhosis (K70, K73-K74)                      |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000  | 12.9     | 0.0 | 0.0 | 0.0  | 0.0   | 1.2   | 5.8   | 15.6  | 26.9  | 40.3  | 50.1  | 31.4              | 10.8        |
| 2001  | 12.4     | 0.0 | 0.0 | 0.0  | 0.0   | 0.8   | 6.1   | 15.5  | 26.2  | 39.9  | 43.3  | 32.7              | 10.5        |
| 2002  | 12.3     | 0.0 | 0.0 | 0.0  | 0.0   | 0.7   | 6.2   | 14.6  | 24.4  | 40.5  | 45.1  | 28.1              | 10.2        |
| 2003  | 11.9     | 0.0 | 0.0 | 0.0  | 0.0   | 0.6   | 5.7   | 15.1  | 24.7  | 37.4  | 41.9  | 29.9              | 9.9         |
| 2004  | 11.5     | 0.0 | 0.0 | 0.0  | 0.0   | 0.4   | 5.3   | 14.8  | 23.0  | 36.2  | 43.0  | 28.0              | 9.5         |
| 2005  | 11.4     | 0.0 | 0.1 | 0.0  | 0.0   | 0.3   | 5.4   | 14.0  | 23.7  | 35.3  | 42.9  | 26.8              | 9.4         |
| 2006  | 10.9     | 0.0 | 0.0 | 0.0  | 0.1   | 0.4   | 4.7   | 13.9  | 22.5  | 34.3  | 38.0  | 26.3              | 9.0         |
| 2007  | 11.0     | 0.0 | 0.1 | 0.0  | 0.1   | 0.5   | 4.5   | 13.8  | 23.7  | 33.2  | 38.3  | 28.4              | 9.0         |
| 2008  | 10.2     | 0.0 | 0.0 | 0.0  | 0.0   | 0.4   | 3.7   | 13.5  | 22.2  | 31.6  | 36.2  | 21.6              | 8.4         |
| Hypertensive diseases (I10, I12, I15)                                   |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000  | 6.2      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.3   | 1.0   | 2.8   | 10.1  | 38.1  | 158.8             | 3.9         |
| 2001  | 6.4      | 0.0 | 0.0 | 0.0  | 0.1   | 0.0   | 0.2   | 0.8   | 3.1   | 10.1  | 37.9  | 164.3             | 3.9         |
| 2002  | 6.8      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.2   | 0.8   | 2.5   | 9.8   | 39.5  | 180.0             | 4.0         |
| 2003  | 7.5      | 0.0 | 0.0 | 0.0  | 0.0   | 0.1   | 0.2   | 0.6   | 2.8   | 10.4  | 44.4  | 199.9             | 4.4         |
| 2004  | 7.9      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.3   | 0.8   | 2.7   | 10.9  | 44.0  | 210.7             | 4.5         |
| 2005  | 8.1      | 0.0 | 0.1 | 0.0  | 0.0   | 0.1   | 0.2   | 0.9   | 2.8   | 10.2  | 46.0  | 212.0             | 4.6         |
| 2006  | 8.2      | 0.0 | 0.1 | 0.0  | 0.0   | 0.0   | 0.1   | 0.8   | 2.2   | 11.0  | 43.6  | 217.1             | 4.5         |
| 2007  | 8.7      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.2   | 0.8   | 2.8   | 9.4   | 46.4  | 230.1             | 4.7         |
| 2008  | 9.1      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.2   | 0.8   | 2.2   | 10.2  | 45.3  | 244.6             | 4.8         |

Rates are per 100,000 population in each specific group

**Table 3. Mortality rate by age and age-adjusted mortality rate for the 15 leading causes of death, Spain, 2000-2008 (continued)**

| Cause of death (based on ICD, 10th revision) | All ages | Age |     |      |       |       |       |       |       |       |       | Age-adjusted rate |             |
|--|----------|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-------------------|-------------|
|  |          | <1  | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 |                   | 85 and over |
| Septicaemia (A40-A41)                        |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000   | 5.6      | 2.6 | 1.0 | 0.2  | 0.2   | 0.4   | 0.8   | 1.6   | 3.8   | 12.0  | 36.2  | 94.0              | 3.8         |
| 2001   | 6.4      | 1.5 | 0.7 | 0.2  | 0.6   | 1.0   | 2.1   | 4.1   | 13.5  | 40.4  | 105.1 | 4.2               |             |
| 2002   | 6.5      | 1.7 | 0.7 | 0.2  | 0.3   | 0.8   | 1.6   | 4.2   | 12.2  | 41.6  | 117.1 | 4.2               |             |
| 2003   | 7.5      | 2.8 | 0.9 | 0.1  | 0.3   | 1.0   | 2.2   | 4.9   | 16.1  | 44.5  | 131.5 | 4.9               |             |
| 2004   | 7.1      | 1.8 | 0.6 | 0.2  | 0.3   | 0.8   | 1.7   | 3.8   | 14.2  | 44.3  | 125.1 | 4.4               |             |
| 2005   | 7.9      | 2.9 | 0.6 | 0.1  | 0.3   | 0.8   | 2.0   | 5.4   | 15.4  | 49.2  | 130.6 | 4.9               |             |
| 2006   | 7.7      | 2.2 | 0.6 | 0.1  | 0.3   | 0.9   | 1.7   | 4.6   | 14.1  | 48.0  | 133.2 | 4.7               |             |
| 2007   | 8.7      | 1.3 | 0.5 | 0.1  | 0.3   | 0.9   | 1.8   | 5.1   | 15.5  | 52.9  | 151.7 | 5.1               |             |
| 2008   | 9.1      | 2.6 | 0.4 | 0.1  | 0.2   | 1.0   | 2.1   | 4.9   | 15.5  | 53.5  | 162.0 | 5.3               |             |
| Suicide (X60-X84+Y87.0)                      |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000   | 8.4      | 0.0 | 0.0 | 0.2  | 4.7   | 7.6   | 8.5   | 9.0   | 10.5  | 14.8  | 21.2  | 26.6              | 7.3         |
| 2001   | 7.8      | 0.0 | 0.0 | 0.3  | 4.1   | 7.3   | 8.4   | 8.2   | 9.1   | 13.2  | 18.9  | 26.6              | 6.7         |
| 2002   | 8.2      | 0.0 | 0.0 | 0.2  | 4.3   | 7.4   | 8.0   | 9.4   | 10.2  | 13.6  | 19.6  | 25.4              | 7.0         |
| 2003   | 8.3      | 0.0 | 0.0 | 0.1  | 4.5   | 7.7   | 8.4   | 9.6   | 10.0  | 12.8  | 20.3  | 24.5              | 7.1         |
| 2004   | 8.2      | 0.0 | 0.0 | 0.3  | 4.3   | 7.0   | 8.9   | 10.1  | 9.4   | 13.1  | 19.3  | 24.0              | 7.0         |
| 2005   | 7.8      | 0.0 | 0.0 | 0.2  | 3.9   | 7.0   | 8.5   | 8.3   | 9.5   | 13.3  | 18.7  | 22.1              | 6.6         |
| 2006   | 7.4      | 0.0 | 0.0 | 0.1  | 3.7   | 6.0   | 7.9   | 8.7   | 9.6   | 11.7  | 17.3  | 19.1              | 6.2         |
| 2007   | 7.3      | 0.0 | 0.0 | 0.3  | 2.8   | 5.6   | 8.2   | 8.5   | 9.5   | 11.2  | 17.5  | 21.5              | 6.1         |
| 2008   | 7.6      | 0.0 | 0.0 | 0.1  | 3.3   | 6.1   | 8.6   | 9.4   | 10.0  | 12.1  | 16.5  | 17.9              | 6.5         |
| Vascular disorders of intestine (K55)        |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000   | 6.0      | 0.3 | 0.0 | 0.0  | 0.1   | 0.1   | 0.2   | 0.5   | 2.3   | 10.0  | 44.3  | 134.8             | 3.7         |
| 2001   | 6.1      | 0.2 | 0.1 | 0.0  | 0.0   | 0.1   | 0.1   | 0.5   | 1.8   | 10.7  | 43.3  | 132.1             | 3.6         |
| 2002   | 6.3      | 0.5 | 0.0 | 0.0  | 0.0   | 0.1   | 0.2   | 1.0   | 2.5   | 9.7   | 46.5  | 129.6             | 3.8         |
| 2003   | 6.7      | 0.0 | 0.0 | 0.0  | 0.1   | 0.0   | 0.1   | 0.7   | 2.2   | 11.3  | 46.4  | 143.3             | 3.9         |
| 2004   | 6.4      | 0.4 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.6   | 2.3   | 10.9  | 43.0  | 134.8             | 3.7         |
| 2005   | 6.5      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.2   | 0.7   | 2.6   | 10.2  | 44.8  | 132.4             | 3.7         |
| 2006   | 6.5      | 0.0 | 0.1 | 0.0  | 0.0   | 0.0   | 0.2   | 0.5   | 2.2   | 9.8   | 43.1  | 139.6             | 3.6         |
| 2007   | 6.7      | 0.0 | 0.1 | 0.0  | 0.0   | 0.1   | 0.2   | 0.8   | 2.0   | 10.1  | 42.5  | 140.4             | 3.7         |
| 2008   | 6.6      | 0.0 | 0.0 | 0.0  | 0.1   | 0.0   | 0.2   | 0.7   | 2.4   | 9.1   | 41.0  | 142.0             | 3.6         |

Rates are per 100,000 population in each specific group

**Table 3. Mortality rate by age and age-adjusted mortality rate for the 15 leading causes of death, Spain, 2000-2008 (continued)**

| Cause of death (based on ICD, 10th revision) | All ages | Age |     |      |       |       |       |       |       |       |       | Age-adjusted rate |             |
|--|----------|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-------------------|-------------|
|  |          | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 |                   | 85 and over |
| Parkinson's disease (G20-G21)                |          |     |     |      |       |       |       |       |       |       |       |                   |             |
| 2000   | 4.3      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.2   | 0.7   | 7.4   | 39.7  | 79.2              | 2.5         |
| 2001   | 4.7      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.1   | 1.1   | 8.5   | 40.7  | 86.5              | 2.8         |
| 2002   | 4.7      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.2   | 0.8   | 7.2   | 39.3  | 93.0              | 2.7         |
| 2003   | 5.5      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.2   | 0.8   | 9.0   | 45.1  | 106.5             | 3.1         |
| 2004   | 5.0      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 0.8   | 7.2   | 41.1  | 96.2              | 2.7         |
| 2005   | 5.8      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.2   | 0.9   | 7.7   | 48.4  | 108.4             | 3.1         |
| 2006   | 5.7      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.2   | 1.0   | 8.1   | 45.6  | 105.8             | 3.0         |
| 2007   | 5.7      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 1.0   | 7.4   | 44.5  | 110.4             | 3.0         |
| 2008   | 5.8      | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.2   | 1.0   | 7.5   | 45.2  | 106.7             | 3.0         |

Rates are per 100,000 population in each specific group

**Table 4. Number of deaths for selected causes of death, by age, Spain, 2008. Both sexes**

| Cause of death (based on ICD, 10th revision)                            | Age   |     |      |       |       |       |        |        |        |         |             |
|---|-------|-----|------|-------|-------|-------|--------|--------|--------|---------|-------------|
|   | < 1   | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54  | 55-64  | 65-74  | 75-84   | 85 and over |
| All causes  | 1,741 | 345 | 500  | 1,841 | 3,684 | 8,464 | 17,871 | 30,892 | 56,469 | 127,624 | 136,893     |
| Infectious and parasitic diseases                                       | 29    | 20  | 12   | 31    | 155   | 742   | 725    | 518    | 1,029  | 2,339   | 2,108       |
| A00-B99   |       |     |      |       |       |       |        |        |        |         |             |
| A09   | 1     | 1   | 1    | 0     | 1     | 4     | 2      | 3      | 22     | 134     | 239         |
| A16-A19   | 0     | 0   | 0    | 2     | 8     | 15    | 38     | 23     | 34     | 88      | 48          |
| A16   | 0     | 0   | 0    | 1     | 5     | 13    | 29     | 21     | 27     | 69      | 37          |
| A17-A19   | 0     | 0   | 0    | 1     | 3     | 2     | 9      | 2      | 7      | 19      | 11          |
| A40-A41   | 13    | 8   | 4    | 10    | 20    | 77    | 129    | 240    | 585    | 1,527   | 1,523       |
| B15-B19   | 0     | 0   | 0    | 1     | 5     | 75    | 102    | 93     | 224    | 308     | 100         |
| B20-B24   | 0     | 0   | 1    | 7     | 105   | 545   | 401    | 91     | 35     | 19      | 7           |
| C00-C97   | 14    | 52  | 108  | 243   | 557   | 2,323 | 7,970  | 15,745 | 23,564 | 33,520  | 16,579      |
| C00-C14   | 0     | 0   | 0    | 4     | 5     | 65    | 357    | 568    | 477    | 402     | 188         |
| C15   | 0     | 0   | 0    | 0     | 3     | 40    | 244    | 444    | 494    | 414     | 150         |
| C16   | 0     | 0   | 0    | 1     | 22    | 137   | 397    | 766    | 1,315  | 2,013   | 977         |
| C18-C20   | 0     | 0   | 0    | 2     | 34    | 167   | 704    | 1,727  | 3,059  | 5,098   | 2,951       |
| C22   | 2     | 1   | 0    | 7     | 20    | 72    | 326    | 645    | 1,204  | 1,654   | 597         |
| C25   | 0     | 0   | 0    | 1     | 13    | 92    | 370    | 840    | 1,417  | 1,794   | 706         |
| C32   | 0     | 0   | 0    | 0     | 0     | 31    | 187    | 395    | 414    | 377     | 144         |
| C33-C34   | 0     | 0   | 1    | 9     | 31    | 378   | 2,175  | 4,315  | 5,678  | 5,983   | 1,643       |
| C43   | 0     | 0   | 0    | 2     | 17    | 60    | 85     | 165    | 195    | 241     | 112         |
| C50   | 0     | 0   | 0    | 1     | 51    | 398   | 895    | 1,048  | 1,089  | 1,525   | 1,115       |
| C53   | 0     | 0   | 0    | 0     | 14    | 75    | 117    | 122    | 113    | 115     | 60          |
| C54-C55   | 0     | 0   | 0    | 1     | 2     | 15    | 78     | 189    | 353    | 445     | 274         |
| C56   | 0     | 1   | 0    | 3     | 11    | 57    | 207    | 387    | 436    | 549     | 181         |
| C61   | 0     | 0   | 0    | 0     | 0     | 2     | 34     | 293    | 1,008  | 2,392   | 1,735       |
| C64-C65   | 0     | 2   | 3    | 6     | 8     | 47    | 166    | 282    | 415    | 645     | 263         |
| C67   | 0     | 0   | 0    | 1     | 6     | 21    | 149    | 491    | 976    | 1,897   | 1,163       |
| C71   | 5     | 15  | 27   | 25    | 69    | 141   | 300    | 519    | 644    | 622     | 156         |
| C81-C85   | 0     | 2   | 11   | 24    | 51    | 128   | 172    | 324    | 584    | 996     | 401         |
| C81   | 0     | 0   | 1    | 10    | 19    | 27    | 22     | 31     | 45     | 64      | 22          |
| C82-C85   | 0     | 2   | 10   | 14    | 32    | 101   | 150    | 293    | 539    | 932     | 379         |
| C88, C90  | 0     | 0   | 0    | 1     | 4     | 13    | 52     | 199    | 390    | 699     | 343         |
| C91-C95   | 4     | 15  | 30   | 67    | 66    | 77    | 143    | 331    | 610    | 1,133   | 571         |
| Carcinoma in situ, benign neoplasms and neoplasms of unspecified nature | 4     | 6   | 21   | 13    | 22    | 73    | 146    | 318    | 573    | 1,243   | 960         |
| D00-D48   |       |     |      |       |       |       |        |        |        |         |             |

**Table 4. Number of deaths for selected causes of death, by age, Spain, 2008. Both sexes (continued)**

| Cause of death (based on ICD, 10th revision)     | Age |     |      |       |       |       |       |       |        |        |             |
|--|-----|-----|------|-------|-------|-------|-------|-------|--------|--------|-------------|
|  | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74  | 75-84  | 85 and over |
| Anaemias   | 1   | 3   | 8    | 5     | 10    | 10    | 14    | 31    | 67     | 254    | 497         |
| Diabetes mellitus                                | 0   | 0   | 1    | 4     | 16    | 50    | 149   | 461   | 1,433  | 3,999  | 4,040       |
| Vascular and other unspecified dementias         | 0   | 0   | 0    | 0     | 0     | 3     | 13    | 76    | 535    | 3,668  | 8,059       |
| Spinal muscular atrophy                          | 15  | 4   | 1    | 5     | 10    | 35    | 72    | 162   | 317    | 256    | 56          |
| Parkinson's disease                              | 0   | 0   | 0    | 0     | 0     | 1     | 10    | 47    | 282    | 1,290  | 1,003       |
| Alzheimer's disease                              | 0   | 0   | 0    | 0     | 1     | 4     | 5     | 98    | 652    | 4,371  | 5,271       |
| Diseases of the circulatory system               | 13  | 18  | 41   | 117   | 366   | 1,225 | 3,364 | 6,388 | 14,993 | 42,174 | 54,094      |
| Diseases of heart                                | 13  | 11  | 21   | 85    | 245   | 880   | 2,447 | 4,619 | 10,092 | 27,062 | 34,700      |
| Rheumatic heart diseases                         | 0   | 0   | 0    | 1     | 6     | 11    | 32    | 106   | 304    | 572    | 336         |
| Hypertensive heart disease                       | 0   | 0   | 0    | 0     | 4     | 8     | 30    | 55    | 226    | 1,030  | 1,841       |
| Ischemic heart disease                           | 1   | 0   | 0    | 17    | 80    | 444   | 1,503 | 2,948 | 5,793  | 12,700 | 12,442      |
| Heart failure                                    | 1   | 0   | 4    | 10    | 25    | 127   | 237   | 459   | 1,316  | 5,921  | 12,141      |
| Hypertensive diseases                            | 0   | 0   | 0    | 0     | 1     | 14    | 48    | 110   | 385    | 1,293  | 2,299       |
| Cerebrovascular diseases                         | 0   | 7   | 17   | 26    | 98    | 266   | 699   | 1,277 | 3,619  | 11,685 | 14,139      |
| Diseases of arteries, arterioles and capillaries | 0   | 0   | 3    | 5     | 14    | 43    | 141   | 345   | 819    | 1,916  | 2,673       |
| Atherosclerosis                                  | 0   | 0   | 0    | 0     | 0     | 3     | 13    | 35    | 123    | 718    | 1,717       |
| Aortic aneurysm and dissection                   | 0   | 0   | 3    | 4     | 10    | 34    | 101   | 218   | 486    | 744    | 352         |
| Diseases of the respiratory system               | 27  | 15  | 24   | 58    | 171   | 426   | 761   | 1,639 | 4,941  | 15,725 | 20,413      |
| Influenza and pneumonia                          | 6   | 7   | 4    | 18    | 27    | 113   | 200   | 311   | 777    | 3,040  | 4,769       |
| Other acute lower respiratory infections         | 10  | 0   | 0    | 1     | 1     | 3     | 7     | 9     | 48     | 323    | 750         |
| Chronic lower respiratory diseases               | 1   | 1   | 5    | 12    | 20    | 46    | 186   | 659   | 2,254  | 6,045  | 5,646       |
| Chronic and unspecified bronchitis               | 0   | 0   | 0    | 0     | 0     | 6     | 5     | 31    | 95     | 287    | 458         |
| Emphysema  | 0   | 0   | 0    | 0     | 0     | 3     | 25    | 42    | 126    | 209    | 116         |
| Asthma   | 0   | 1   | 4    | 12    | 12    | 18    | 34    | 41    | 88     | 281    | 298         |
| Pneumonitis due to solids and liquids            | 0   | 0   | 0    | 1     | 6     | 13    | 18    | 53    | 139    | 625    | 1,164       |
| Respiratory failure, not elsewhere classified    | 4   | 1   | 6    | 9     | 16    | 50    | 64    | 125   | 358    | 1,205  | 1,638       |
| Diseases of the digestive system                 | 6   | 6   | 11   | 29    | 81    | 537   | 1,414 | 1,982 | 3,082  | 6,293  | 6,035       |
| Peptic ulcer                                     | 0   | 0   | 0    | 1     | 1     | 14    | 27    | 47    | 61     | 151    | 164         |
| Appendicitis                                     | 0   | 1   | 0    | 0     | 1     | 4     | 2     | 3     | 5      | 28     | 22          |
| Hernia and intestinal obstruction                | 2   | 0   | 1    | 2     | 5     | 13    | 31    | 58    | 193    | 841    | 1,123       |
| Vascular disorders of intestine                  | 0   | 0   | 1    | 3     | 2     | 14    | 43    | 115   | 343    | 1,170  | 1,335       |
| Chronic liver disease and cirrhosis              | 0   | 0   | 0    | 2     | 29    | 277   | 835   | 1,085 | 1,196  | 1,035  | 203         |
| Alcoholic liver disease                          | 0   | 0   | 0    | 0     | 16    | 103   | 304   | 391   | 304    | 137    | 16          |
| Cholelithiasis and other gallbladder diseases    | 0   | 0   | 0    | 0     | 2     | 6     | 21    | 23    | 141    | 493    | 689         |
| Acute pancreatitis                               | 0   | 0   | 1    | 5     | 6     | 33    | 53    | 96    | 225    | 456    | 371         |

**Table 4. Number of deaths for selected causes of death, by age, Spain, 2008. Both sexes (continued)**

| Cause of death (based on ICD, 10th revision)  | Age |     |      |       |       |       |       |       |       |       |             |  |  |
|---|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-------------|--|--|
|   | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 | 85 and over |  |  |
| Nephritis, nephrotic syndrome and nephrosis   | 2   | 1   | 2    | 5     | 12    | 24    | 90    | 221   | 660   | 2,429 | 3,340       |  |  |
| Renal failure   | 2   | 0   | 0    | 5     | 12    | 22    | 87    | 208   | 630   | 2,375 | 3,297       |  |  |
| Kidney infections   | 0   | 0   | 0    | 1     | 1     | 0     | 8     | 10    | 16    | 71    | 53          |  |  |
| Hyperplasia of prostate   | 0   | 0   | 0    | 0     | 0     | 0     | 0     | 0     | 7     | 36    | 72          |  |  |
| Inflammatory diseases of female pelvic organs   | 0   | 0   | 0    | 0     | 1     | 1     | 1     | 2     | 4     | 7     | 7           |  |  |
| Certain conditions originating in the perinatal period  | 917 | 7   | 4    | 3     | 3     | 5     | 3     | 2     | 0     | 0     | 0           |  |  |
| Congenital malformations, deformations and chromosomal abnormalities  | 466 | 50  | 42   | 31    | 49    | 51    | 75    | 55    | 40    | 46    | 19          |  |  |
| Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified  | 100 | 22  | 10   | 80    | 213   | 434   | 600   | 613   | 919   | 2,531 | 5,981       |  |  |
| External causes of death  | 47  | 82  | 134  | 1,065 | 1,764 | 2,100 | 1,807 | 1,563 | 1,680 | 2,714 | 2,333       |  |  |
| Unintentional injuries  | 44  | 80  | 124  | 839   | 1,186 | 1,324 | 1,128 | 986   | 1,105 | 2,060 | 2,048       |  |  |
| Motor vehicle accidents   |     |     |      |       |       |       |       |       |       |       |             |  |  |
| V02-V04+V09.0+V09.2+V12-V14+V19.0-V19.2+V19.4-V19.6+V20-V79+V80.3-V80.5+V81.0-V81.1+V82.0-V82.1+V83-V86+V87.0-V87.8+V88.8-V88.9+V89.0-V89.2 | 9   | 23  | 48   | 538   | 586   | 512   | 395   | 312   | 294   | 322   | 78          |  |  |
| Falls   | 1   | 14  | 7    | 40    | 85    | 101   | 145   | 166   | 222   | 515   | 549         |  |  |
| Accidental drowning and submersion  | 6   | 14  | 17   | 46    | 52    | 62    | 54    | 61    | 76    | 64    | 26          |  |  |
| Accidental poisoning by exposure to noxious substances  | 0   | 0   | 4    | 59    | 188   | 303   | 165   | 49    | 27    | 56    | 29          |  |  |
| Suicide   | 0   | 0   | 4    | 168   | 466   | 650   | 583   | 491   | 457   | 470   | 168         |  |  |
| Assault   | 2   | 2   | 5    | 46    | 87    | 86    | 65    | 33    | 24    | 20    | 8           |  |  |
| Complications of medical and surgical care  | 1   | 0   | 1    | 3     | 5     | 10    | 20    | 42    | 74    | 144   | 104         |  |  |

**Table 4. Number of deaths for selected causes of death, by age, Spain, 2008. Men (continued)**

| Cause of death (based on ICD, 10th revision)                            | Age |     |      |       |       |       |        |        |        |        |             |
|---|-----|-----|------|-------|-------|-------|--------|--------|--------|--------|-------------|
|   | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54  | 55-64  | 65-74  | 75-84  | 85 and over |
| All causes  | 989 | 182 | 304  | 1,357 | 2,704 | 5,762 | 12,311 | 21,890 | 37,455 | 68,851 | 47,842      |
| Infectious and parasitic diseases                                       |     |     |      |       |       |       |        |        |        |        |             |
| A00-B99   | 17  | 14  | 8    | 17    | 99    | 581   | 564    | 345    | 588    | 1,124  | 701         |
| A09   | 1   | 0   | 1    | 0     | 1     | 3     | 1      | 2      | 12     | 51     | 75          |
| Diarrhoea and infectious gastroenteritis                                |     |     |      |       |       |       |        |        |        |        |             |
| A16-A19   | 0   | 0   | 0    | 1     | 4     | 14    | 27     | 22     | 22     | 54     | 27          |
| A16   | 0   | 0   | 0    | 0     | 3     | 12    | 21     | 20     | 19     | 45     | 22          |
| Respiratory tuberculosis  |     |     |      |       |       |       |        |        |        |        |             |
| A17-A19   | 0   | 0   | 0    | 1     | 1     | 2     | 6      | 2      | 3      | 9      | 5           |
| Other tuberculosis  |     |     |      |       |       |       |        |        |        |        |             |
| A40-A41   | 7   | 7   | 4    | 8     | 13    | 58    | 91     | 145    | 330    | 744    | 504         |
| Septicaemia   |     |     |      |       |       |       |        |        |        |        |             |
| B15-B19   | 0   | 0   | 0    | 0     | 2     | 62    | 88     | 54     | 94     | 114    | 24          |
| Viral hepatitis   |     |     |      |       |       |       |        |        |        |        |             |
| B20-B24   | 0   | 0   | 1    | 3     | 73    | 423   | 322    | 78     | 29     | 16     | 2           |
| HIV disease   |     |     |      |       |       |       |        |        |        |        |             |
| C00-C97   | 10  | 33  | 68   | 138   | 302   | 1,108 | 4,767  | 10,737 | 16,155 | 20,942 | 8,322       |
| Malignant neoplasms (cancer)  |     |     |      |       |       |       |        |        |        |        |             |
| C00-C14   | 0   | 0   | 0    | 2     | 4     | 53    | 312    | 499    | 412    | 266    | 85          |
| Malignant neoplasm of lip, oral cavity and pharynx                      |     |     |      |       |       |       |        |        |        |        |             |
| C15   | 0   | 0   | 0    | 0     | 3     | 35    | 222    | 403    | 444    | 342    | 104         |
| Malignant neoplasm of esophagus   |     |     |      |       |       |       |        |        |        |        |             |
| C16   | 0   | 0   | 0    | 0     | 15    | 68    | 266    | 555    | 927    | 1,199  | 405         |
| Malignant neoplasm of stomach   |     |     |      |       |       |       |        |        |        |        |             |
| C18-C20   | 0   | 0   | 0    | 2     | 18    | 82    | 395    | 1,105  | 2,001  | 3,032  | 1,320       |
| Malignant neoplasm of colon and rectum                                  |     |     |      |       |       |       |        |        |        |        |             |
| C22   | 1   | 1   | 0    | 6     | 18    | 60    | 267    | 534    | 853    | 996    | 258         |
| Malignant neoplasm of liver   |     |     |      |       |       |       |        |        |        |        |             |
| C25   | 0   | 0   | 0    | 1     | 8     | 49    | 254    | 545    | 826    | 850    | 245         |
| Malignant neoplasm of pancreas  |     |     |      |       |       |       |        |        |        |        |             |
| C32   | 0   | 0   | 0    | 0     | 0     | 30    | 174    | 380    | 407    | 363    | 134         |
| Malignant neoplasm of larynx  |     |     |      |       |       |       |        |        |        |        |             |
| C33-C34   | 0   | 0   | 1    | 6     | 22    | 243   | 1,632  | 3,715  | 5,088  | 5,197  | 1,259       |
| Malignant neoplasm of trachea, bronchus and lung                        |     |     |      |       |       |       |        |        |        |        |             |
| C43   | 0   | 0   | 0    | 2     | 11    | 40    | 49     | 104    | 120    | 141    | 43          |
| Malignant neoplasm of skin  |     |     |      |       |       |       |        |        |        |        |             |
| C50   | 0   | 0   | 0    | 0     | 0     | 2     | 4      | 15     | 12     | 24     | 14          |
| Malignant neoplasm of breast  |     |     |      |       |       |       |        |        |        |        |             |
| C53   | 0   | 0   | 0    | 0     | 0     | 0     | 0      | 0      | 0      | 0      | 0           |
| Malignant neoplasm of cervix uteri                                      |     |     |      |       |       |       |        |        |        |        |             |
| C54-C55   | 0   | 0   | 0    | 0     | 0     | 0     | 0      | 0      | 0      | 0      | 0           |
| Malignant neoplasm of corpus uteri                                      |     |     |      |       |       |       |        |        |        |        |             |
| C56   | 0   | 0   | 0    | 0     | 0     | 0     | 0      | 0      | 0      | 0      | 0           |
| Malignant neoplasm of ovary   |     |     |      |       |       |       |        |        |        |        |             |
| C61   | 0   | 0   | 0    | 0     | 0     | 2     | 34     | 293    | 1,008  | 2,392  | 1,735       |
| Malignant neoplasm of prostate  |     |     |      |       |       |       |        |        |        |        |             |
| C64-C65   | 0   | 1   | 0    | 3     | 4     | 34    | 123    | 196    | 288    | 420    | 135         |
| Malignant neoplasm of kidney and renal pelvis                           |     |     |      |       |       |       |        |        |        |        |             |
| C67   | 0   | 0   | 0    | 1     | 3     | 14    | 123    | 450    | 853    | 1,584  | 799         |
| Malignant neoplasm of bladder   |     |     |      |       |       |       |        |        |        |        |             |
| C71   | 5   | 12  | 20   | 11    | 48    | 88    | 176    | 327    | 362    | 301    | 67          |
| Malignant neoplasm of brain   |     |     |      |       |       |       |        |        |        |        |             |
| C81-C85   | 0   | 1   | 9    | 13    | 35    | 77    | 133    | 198    | 344    | 511    | 154         |
| Lymphomas   |     |     |      |       |       |       |        |        |        |        |             |
| C81   | 0   | 0   | 1    | 3     | 15    | 17    | 19     | 23     | 27     | 30     | 9           |
| Hodgkin's disease   |     |     |      |       |       |       |        |        |        |        |             |
| C82-C85   | 0   | 1   | 8    | 10    | 20    | 60    | 114    | 175    | 317    | 481    | 145         |
| Non-Hodgkin's lymphomas   |     |     |      |       |       |       |        |        |        |        |             |
| C88, C90  | 0   | 0   | 0    | 0     | 4     | 7     | 29     | 100    | 198    | 304    | 168         |
| Multiple myeloma and immunoproliferative diseases                       |     |     |      |       |       |       |        |        |        |        |             |
| C91-C95   | 2   | 7   | 21   | 44    | 40    | 45    | 74     | 199    | 375    | 664    | 266         |
| Leukaemias  |     |     |      |       |       |       |        |        |        |        |             |
| Carcinoma in situ, benign neoplasms and neoplasms of unspecified nature |     |     |      |       |       |       |        |        |        |        |             |
| D00-D48   | 1   | 3   | 6    | 7     | 12    | 38    | 80     | 196    | 341    | 693    | 399         |

**Table 4. Number of deaths for selected causes of death, by age, Spain, 2008, Men (continued)**

| Cause of death (based on ICD, 10th revision)     | Age |     |      |       |       |       |       |       |       |        |             |
|--|-----|-----|------|-------|-------|-------|-------|-------|-------|--------|-------------|
|  | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84  | 85 and over |
| Anaemias   | 0   | 2   | 4    | 5     | 6     | 7     | 8     | 18    | 32    | 102    | 153         |
| Diabetes mellitus                                | 0   | 0   | 0    | 4     | 10    | 32    | 112   | 318   | 821   | 1,739  | 1,157       |
| Vascular and other unspecified dementias         | 0   | 0   | 0    | 0     | 0     | 3     | 8     | 54    | 296   | 1,578  | 2,004       |
| Spinal muscular atrophy                          | 10  | 0   | 1    | 3     | 7     | 23    | 54    | 84    | 160   | 128    | 23          |
| Parkinson's disease                              | 0   | 0   | 0    | 0     | 0     | 1     | 6     | 34    | 154   | 718    | 424         |
| Alzheimer's disease                              | 0   | 0   | 0    | 0     | 0     | 3     | 0     | 51    | 272   | 1,604  | 1,227       |
| Diseases of the circulatory system               | 9   | 4   | 30   | 74    | 253   | 935   | 2,644 | 4,908 | 9,791 | 20,642 | 16,451      |
| Diseases of heart                                | 9   | 1   | 16   | 55    | 182   | 713   | 2,027 | 3,666 | 6,605 | 13,287 | 10,678      |
| Rheumatic heart diseases                         | 0   | 0   | 0    | 1     | 6     | 7     | 19    | 49    | 95    | 158    | 78          |
| Hypertensive heart disease                       | 0   | 0   | 0    | 0     | 1     | 5     | 24    | 42    | 110   | 380    | 392         |
| Ischemic heart disease                           | 0   | 0   | 0    | 12    | 68    | 376   | 1,322 | 2,486 | 4,190 | 7,204  | 4,733       |
| Heart failure                                    | 1   | 0   | 2    | 8     | 18    | 102   | 180   | 327   | 743   | 2,405  | 3,174       |
| Hypertensive diseases                            | 0   | 0   | 0    | 0     | 1     | 10    | 34    | 78    | 253   | 550    | 549         |
| Cerebrovascular diseases                         | 0   | 3   | 12   | 15    | 61    | 162   | 448   | 847   | 2,230 | 5,467  | 4,207       |
| Diseases of arteries, arterioles and capillaries | 0   | 0   | 2    | 3     | 7     | 33    | 116   | 292   | 655   | 1,241  | 955         |
| Atherosclerosis                                  | 0   | 0   | 0    | 0     | 0     | 2     | 9     | 26    | 77    | 353    | 496         |
| Aortic aneurysm and dissection                   | 0   | 0   | 2    | 3     | 7     | 27    | 85    | 190   | 416   | 624    | 251         |
| Diseases of the respiratory system               | 19  | 5   | 12   | 42    | 131   | 300   | 554   | 1,239 | 3,662 | 10,258 | 9,239       |
| Pneumonia and influenza                          | 5   | 1   | 1    | 13    | 16    | 77    | 154   | 223   | 540   | 1,817  | 2,030       |
| Other acute lower respiratory infections         | 7   | 0   | 0    | 1     | 1     | 1     | 5     | 5     | 30    | 162    | 246         |
| Chronic lower respiratory diseases               | 1   | 1   | 1    | 8     | 15    | 24    | 129   | 533   | 1,931 | 4,822  | 3,681       |
| Chronic and unspecified bronchitis               | 0   | 0   | 0    | 0     | 0     | 4     | 5     | 25    | 84    | 215    | 226         |
| Emphysema  | 0   | 0   | 0    | 0     | 0     | 3     | 19    | 38    | 111   | 181    | 86          |
| Asthma   | 0   | 1   | 0    | 8     | 9     | 5     | 12    | 18    | 38    | 47     | 39          |
| Pneumonitis due to solids and liquids            | 0   | 0   | 0    | 1     | 4     | 10    | 15    | 44    | 97    | 357    | 475         |
| Respiratory failure, not classified elsewhere    | 2   | 1   | 4    | 8     | 10    | 35    | 44    | 83    | 227   | 634    | 562         |
| Diseases of the digestive system                 | 4   | 2   | 7    | 18    | 53    | 391   | 1,084 | 1,522 | 2,082 | 3,167  | 1,977       |
| Peptic ulcer                                     | 0   | 0   | 0    | 0     | 0     | 9     | 17    | 36    | 51    | 87     | 62          |
| Appendicitis                                     | 0   | 0   | 0    | 0     | 0     | 4     | 1     | 3     | 4     | 14     | 11          |
| Hernia and intestinal obstruction                | 1   | 0   | 1    | 0     | 3     | 5     | 21    | 34    | 117   | 379    | 357         |
| Vascular disorders of intestine                  | 0   | 0   | 1    | 2     | 1     | 9     | 25    | 78    | 225   | 541    | 397         |
| Chronic liver disease and cirrhosis              | 0   | 0   | 0    | 2     | 18    | 205   | 667   | 887   | 864   | 616    | 93          |
| Alcoholic liver disease                          | 0   | 0   | 0    | 0     | 9     | 79    | 241   | 336   | 257   | 116    | 12          |
| Cholelithiasis and other gallbladder diseases    | 0   | 0   | 0    | 0     | 2     | 2     | 16    | 16    | 81    | 236    | 216         |
| Acute pancreatitis                               | 0   | 0   | 0    | 5     | 4     | 27    | 37    | 66    | 139   | 223    | 126         |



**Table 4. Number of deaths for selected causes of death, by age, Spain, 2008. Men (continued)**

| Cause of death (based on ICD, 10th revision)  | Age |     |      |       |       |       |       |       |       |       |             |
|---|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-------------|
|   | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 | 85 and over |
| Nephritis, nephrotic syndrome and nephrosis N00-N07, N17-N19, N25-N27   | 0   | 1   | 2    | 4     | 9     | 19    | 64    | 158   | 401   | 1,328 | 1,347       |
| Renal failure N17-N19   | 0   | 0   | 0    | 4     | 9     | 17    | 62    | 148   | 382   | 1,301 | 1,323       |
| Kidney infections N10-N12, N13.6, N15.1   | 0   | 0   | 0    | 0     | 0     | 0     | 6     | 6     | 7     | 27    | 21          |
| Hyperplasia of prostate N40   | 0   | 0   | 0    | 0     | 0     | 0     | 0     | 0     | 7     | 36    | 72          |
| Inflammatory diseases of female pelvic organs N70-N76   | 0   | 0   | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0           |
| Certain conditions originating in the perinatal period P00-P96  | 530 | 4   | 4    | 1     | 1     | 3     | 2     | 2     | 0     | 0     | 0           |
| Congenital malformations, deformations and chromosomal abnormalities Q00-Q99  | 248 | 23  | 18   | 22    | 29    | 27    | 33    | 31    | 16    | 15    | 5           |
| Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified R00-R99  | 57  | 11  | 7    | 63    | 164   | 336   | 464   | 458   | 623   | 1,183 | 1,632       |
| External causes of death V01-Y98  | 34  | 50  | 87   | 873   | 1,470 | 1,700 | 1,449 | 1,179 | 1,183 | 1,544 | 920         |
| Unintentional injuries V01-X59, Y85-Y86   | 32  | 48  | 82   | 691   | 1,009 | 1,105 | 920   | 760   | 772   | 1,112 | 765         |
| Motor vehicle accidents V02-V04+V09.0+V09.2+V12-V14+V19.0-V19.2+V19.4-V19.6+V20-V79+V80.3-V80.5+V81.0-V81.1+V82.0-V82.1+V83-V86+V87.0-V87.8+V88.8-V88.9+V89.0-V89.2 | 5   | 9   | 30   | 441   | 514   | 428   | 326   | 228   | 216   | 208   | 43          |
| Falls W00-W19   | 1   | 10  | 6    | 36    | 73    | 91    | 126   | 141   | 141   | 238   | 189         |
| Accidental drowning and submersion W65-W74  | 4   | 8   | 13   | 43    | 51    | 56    | 45    | 49    | 64    | 44    | 18          |
| Accidental poisoning by exposure to noxious substances X40-X49  | 0   | 0   | 4    | 51    | 154   | 258   | 135   | 34    | 18    | 31    | 14          |
| Suicide X60-X84+Y87.0   | 0   | 0   | 2    | 138   | 379   | 508   | 464   | 362   | 339   | 361   | 123         |
| Assault X85-Y09   | 1   | 2   | 2    | 35    | 64    | 60    | 44    | 23    | 17    | 12    | 0           |
| Complications of medical and surgical care Y40-Y84  | 1   | 0   | 1    | 0     | 4     | 6     | 11    | 28    | 41    | 48    | 29          |

**Table 4. Number of deaths for selected causes of death, by age, Spain, 2008. Women (continued)**

| Cause of death (based on ICD, 10th revision)                            | Age |     |      |       |       |       |       |       |        |        |             |
|---|-----|-----|------|-------|-------|-------|-------|-------|--------|--------|-------------|
|   | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74  | 75-84  | 85 and over |
| All causes  | 752 | 163 | 196  | 484   | 980   | 2,702 | 5,560 | 9,002 | 19,014 | 58,773 | 89,051      |
| Infectious and parasitic diseases                                       | 12  | 6   | 4    | 14    | 56    | 161   | 161   | 173   | 461    | 1,215  | 1,407       |
| Diarrhoea and infectious gastroenteritis                                | 0   | 1   | 0    | 0     | 0     | 1     | 1     | 1     | 10     | 83     | 164         |
| Tuberculosis  | 0   | 0   | 0    | 1     | 4     | 1     | 11    | 1     | 12     | 34     | 21          |
| Respiratory tuberculosis  | 0   | 0   | 0    | 1     | 2     | 1     | 8     | 1     | 8      | 24     | 15          |
| Other tuberculosis  | 0   | 0   | 0    | 0     | 2     | 0     | 3     | 0     | 4      | 10     | 6           |
| Septicaemia   | 6   | 1   | 0    | 2     | 7     | 19    | 38    | 95    | 255    | 783    | 1,019       |
| Viral hepatitis   | 0   | 0   | 0    | 1     | 3     | 13    | 14    | 39    | 130    | 194    | 76          |
| HIV disease   | 0   | 0   | 0    | 4     | 32    | 122   | 79    | 13    | 6      | 3      | 5           |
| Malignant neoplasms (cancer)  | 4   | 19  | 40   | 105   | 255   | 1,215 | 3,203 | 5,008 | 7,409  | 12,578 | 8,257       |
| Malignant neoplasm of lip, oral cavity and pharynx                      | 0   | 0   | 0    | 2     | 1     | 12    | 45    | 69    | 65     | 136    | 103         |
| Malignant neoplasm of esophagus   | 0   | 0   | 0    | 0     | 0     | 5     | 22    | 41    | 50     | 72     | 46          |
| Malignant neoplasm of stomach   | 0   | 0   | 0    | 1     | 7     | 69    | 131   | 211   | 388    | 814    | 572         |
| Malignant neoplasm of colon and rectum                                  | 0   | 0   | 0    | 0     | 16    | 85    | 309   | 622   | 1,058  | 2,066  | 1,631       |
| Malignant neoplasm of liver   | 1   | 0   | 0    | 1     | 2     | 12    | 59    | 111   | 351    | 658    | 339         |
| Malignant neoplasm of pancreas  | 0   | 0   | 0    | 0     | 5     | 43    | 116   | 295   | 591    | 944    | 461         |
| Malignant neoplasm of larynx  | 0   | 0   | 0    | 0     | 0     | 1     | 13    | 15    | 7      | 14     | 10          |
| Malignant neoplasm of trachea, bronchus and lung                        | 0   | 0   | 0    | 3     | 9     | 135   | 543   | 600   | 590    | 786    | 384         |
| Malignant neoplasm of skin  | 0   | 0   | 0    | 0     | 6     | 20    | 36    | 61    | 75     | 100    | 69          |
| Malignant neoplasm of breast  | 0   | 0   | 0    | 1     | 51    | 396   | 891   | 1,033 | 1,077  | 1,501  | 1,101       |
| Malignant neoplasm of cervix uteri                                      | 0   | 0   | 0    | 0     | 14    | 75    | 117   | 122   | 113    | 115    | 60          |
| Malignant neoplasm of corpus uteri                                      | 0   | 0   | 0    | 1     | 2     | 15    | 78    | 189   | 353    | 445    | 274         |
| Malignant neoplasm of ovary   | 0   | 1   | 0    | 3     | 11    | 57    | 207   | 387   | 436    | 549    | 181         |
| Malignant neoplasm of prostate  | 0   | 0   | 0    | 0     | 0     | 0     | 0     | 0     | 0      | 0      | 0           |
| Malignant neoplasm of kidney and renal pelvis                           | 0   | 1   | 3    | 3     | 4     | 13    | 43    | 86    | 127    | 225    | 128         |
| Malignant neoplasm of bladder   | 0   | 0   | 0    | 0     | 3     | 7     | 26    | 41    | 123    | 313    | 364         |
| Malignant neoplasm of brain   | 0   | 3   | 7    | 14    | 21    | 53    | 124   | 192   | 282    | 321    | 89          |
| Lymphomas   | 0   | 1   | 2    | 11    | 16    | 51    | 39    | 126   | 240    | 485    | 247         |
| Hodgkin's disease   | 0   | 0   | 0    | 7     | 4     | 10    | 3     | 8     | 18     | 34     | 13          |
| Non-Hodgkin's lymphomas   | 0   | 1   | 2    | 4     | 12    | 41    | 36    | 118   | 222    | 451    | 234         |
| Multiple myeloma and immunoproliferative diseases                       | 0   | 0   | 0    | 1     | 0     | 6     | 23    | 99    | 192    | 395    | 175         |
| Leukaemias  | 2   | 8   | 9    | 23    | 26    | 32    | 69    | 132   | 235    | 469    | 305         |
| Carcinoma in situ, benign neoplasms and neoplasms of unspecified nature | 3   | 3   | 15   | 6     | 10    | 35    | 66    | 122   | 232    | 550    | 561         |

**Table 4. Number of deaths for selected causes of death, by age, Spain, 2008. Women (continued)**

| Cause of death (based on ICD, 10th revision)     | Age |     |      |       |       |       |       |       |       |        |             |
|--|-----|-----|------|-------|-------|-------|-------|-------|-------|--------|-------------|
|  | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84  | 85 and over |
| Anaemias   | 1   | 1   | 4    | 0     | 4     | 3     | 6     | 13    | 35    | 152    | 344         |
| Diabetes mellitus                                | 0   | 0   | 1    | 0     | 6     | 18    | 37    | 143   | 612   | 2,260  | 2,883       |
| Vascular and other unspecified dementias         | 0   | 0   | 0    | 0     | 0     | 0     | 5     | 22    | 239   | 2,090  | 6,055       |
| Spinal muscular atrophy                          | 5   | 4   | 0    | 2     | 3     | 12    | 18    | 78    | 157   | 128    | 33          |
| Parkinson's disease                              | 0   | 0   | 0    | 0     | 0     | 0     | 4     | 13    | 128   | 572    | 579         |
| Alzheimer's disease                              | 0   | 0   | 0    | 0     | 1     | 1     | 5     | 47    | 380   | 2,767  | 4,044       |
| Diseases of the circulatory system               | 4   | 14  | 11   | 43    | 113   | 290   | 720   | 1,480 | 5,202 | 21,532 | 37,643      |
| Diseases of heart                                | 4   | 10  | 5    | 30    | 63    | 167   | 420   | 953   | 3,487 | 13,775 | 24,022      |
| Rheumatic heart diseases                         | 0   | 0   | 0    | 0     | 0     | 4     | 13    | 57    | 209   | 414    | 258         |
| Hypertensive heart disease                       | 0   | 0   | 0    | 0     | 3     | 3     | 6     | 13    | 116   | 650    | 1,449       |
| Ischemic heart disease                           | 1   | 0   | 0    | 5     | 12    | 68    | 181   | 462   | 1,603 | 5,496  | 7,709       |
| Heart failure                                    | 0   | 0   | 2    | 2     | 7     | 25    | 57    | 132   | 573   | 3,516  | 8,967       |
| Hypertensive diseases                            | 0   | 0   | 0    | 0     | 0     | 4     | 14    | 32    | 132   | 743    | 1,750       |
| Cerebrovascular diseases                         | 0   | 4   | 5    | 11    | 37    | 104   | 251   | 430   | 1,389 | 6,218  | 9,932       |
| Diseases of arteries, arterioles and capillaries | 0   | 0   | 1    | 2     | 7     | 10    | 25    | 53    | 164   | 675    | 1,718       |
| Atherosclerosis                                  | 0   | 0   | 0    | 0     | 0     | 1     | 4     | 9     | 46    | 365    | 1,221       |
| Aortic aneurysm and dissection                   | 0   | 0   | 1    | 1     | 3     | 7     | 16    | 28    | 70    | 120    | 101         |
| Diseases of the respiratory system               | 8   | 10  | 12   | 16    | 40    | 126   | 207   | 400   | 1,279 | 5,467  | 11,174      |
| Influenza and pneumonia                          | 1   | 6   | 3    | 5     | 11    | 36    | 46    | 88    | 237   | 1,223  | 2,739       |
| Other acute lower respiratory infections         | 3   | 0   | 0    | 0     | 0     | 2     | 2     | 4     | 18    | 161    | 504         |
| Chronic lower respiratory diseases               | 0   | 0   | 4    | 4     | 5     | 22    | 57    | 126   | 323   | 1,223  | 1,965       |
| Chronic and unspecified bronchitis               | 0   | 0   | 0    | 0     | 0     | 2     | 0     | 6     | 11    | 72     | 232         |
| Emphysema  | 0   | 0   | 0    | 0     | 0     | 0     | 6     | 4     | 15    | 28     | 30          |
| Asthma   | 0   | 0   | 4    | 4     | 3     | 13    | 22    | 23    | 50    | 234    | 259         |
| Pneumonitis due to solids and liquids            | 0   | 0   | 0    | 0     | 2     | 3     | 3     | 9     | 42    | 268    | 689         |
| Respiratory failure, not elsewhere classified    | 2   | 0   | 2    | 1     | 6     | 15    | 20    | 42    | 131   | 571    | 1,076       |
| Diseases of the digestive system                 | 2   | 4   | 4    | 11    | 28    | 146   | 330   | 460   | 1,000 | 3,126  | 4,058       |
| Peptic ulcer                                     | 0   | 0   | 0    | 1     | 1     | 5     | 10    | 11    | 10    | 64     | 102         |
| Appendicitis                                     | 0   | 1   | 0    | 0     | 1     | 0     | 1     | 0     | 1     | 14     | 11          |
| Hernia and intestinal obstruction                | 1   | 0   | 0    | 2     | 2     | 8     | 10    | 24    | 76    | 462    | 766         |
| Vascular disorders of intestine                  | 0   | 0   | 0    | 1     | 1     | 5     | 18    | 37    | 118   | 629    | 938         |
| Chronic liver disease and cirrhosis              | 0   | 0   | 0    | 0     | 11    | 72    | 168   | 198   | 332   | 419    | 110         |
| Alcoholic liver disease                          | 0   | 0   | 0    | 0     | 7     | 24    | 63    | 55    | 47    | 21     | 4           |
| Cholelithiasis and other gallbladder diseases    | 0   | 0   | 0    | 0     | 0     | 4     | 5     | 7     | 60    | 257    | 473         |
| Acute pancreatitis                               | 0   | 0   | 1    | 0     | 2     | 6     | 16    | 30    | 86    | 233    | 245         |

**Table 4. Number of deaths for selected causes of death, by age, Spain, 2008. Women (continued)**

| Cause of death (based on ICD, 10th revision)  | Age |     |      |       |       |       |       |       |       |       |             |
|---|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-------------|
|   | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 | 85 and over |
| Nephritis, nephrotic syndrome and nephrosis   | 2   | 0   | 0    | 1     | 3     | 5     | 26    | 63    | 259   | 1,101 | 1,993       |
| Renal failure   | 2   | 0   | 0    | 1     | 3     | 5     | 25    | 60    | 248   | 1,074 | 1,974       |
| Kidney infections   | 0   | 0   | 0    | 1     | 1     | 0     | 2     | 4     | 9     | 44    | 32          |
| Hyperplasia of prostate   | 0   | 0   | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0           |
| Inflammatory diseases of female pelvic organs   | 0   | 0   | 0    | 0     | 1     | 1     | 1     | 2     | 4     | 7     | 7           |
| Certain conditions originating in the perinatal period  | 387 | 3   | 0    | 2     | 2     | 2     | 1     | 0     | 0     | 0     | 0           |
| Congenital malformations, deformations and chromosomal abnormalities  | 218 | 27  | 24   | 9     | 20    | 24    | 42    | 24    | 24    | 31    | 14          |
| Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified  | 43  | 11  | 3    | 17    | 49    | 98    | 136   | 155   | 296   | 1,348 | 4,349       |
| External causes of death  | 13  | 32  | 47   | 192   | 294   | 400   | 358   | 384   | 497   | 1,170 | 1,413       |
| Unintentional injuries  | 12  | 32  | 42   | 148   | 177   | 219   | 208   | 226   | 333   | 948   | 1,283       |
| Motor vehicle accidents   |     |     |      |       |       |       |       |       |       |       |             |
| V02-V04+V09.0+V09.2+V12-V14+V19.0-V19.2+V19.4-V19.6+V20-V79+V80.3-V80.5+V81.0-V81.1+V82.0-V82.1+V83-V86+V87.0-V87.8+V88.8-V88.9+V89.0-V89.2 | 4   | 14  | 18   | 97    | 72    | 84    | 69    | 84    | 78    | 114   | 35          |
| Falls   | 0   | 4   | 1    | 4     | 12    | 10    | 19    | 25    | 81    | 277   | 360         |
| Accidental drowning and submersion  | 2   | 6   | 4    | 3     | 1     | 6     | 9     | 12    | 12    | 20    | 8           |
| Accidental poisoning by exposure to noxious substances  | 0   | 0   | 0    | 8     | 34    | 45    | 30    | 15    | 9     | 25    | 15          |
| Suicide   | 0   | 0   | 2    | 30    | 87    | 142   | 119   | 129   | 118   | 109   | 45          |
| Assault   | 1   | 0   | 3    | 11    | 23    | 26    | 21    | 10    | 7     | 8     | 8           |
| Complications of medical and surgical care  | 0   | 0   | 0    | 3     | 1     | 4     | 9     | 14    | 33    | 96    | 75          |

**Table 5. Crude mortality rate for selected causes of death, by age. Spain, 2008. Both sexes**

| Cause of death (based on ICD, 10th revision)                            | Age      |      |      |       |       |       |       |       |         |         |             |
|---|----------|------|------|-------|-------|-------|-------|-------|---------|---------|-------------|
|   | < 1      | 1-4  | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74   | 75-84   | 85 and over |
| All causes  | 352.3    | 18.2 | 11.6 | 36.5  | 48.0  | 112.6 | 288.1 | 631.6 | 1,493.5 | 4,469.7 | 14,563.9    |
| Infectious and parasitic diseases                                       | A00-B99  | 5.9  | 1.1  | 0.3   | 0.6   | 2.0   | 11.7  | 10.6  | 27.2    | 81.9    | 224.3       |
| Diarrhoea and infectious gastroenteritis                                | A09      | 0.2  | 0.1  | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.6     | 4.7     | 25.4        |
| Tuberculosis  | A16-A19  | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 0.6   | 0.5   | 0.9     | 3.1     | 5.1         |
| Respiratory tuberculosis  | A16      | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 0.5   | 0.4   | 0.7     | 2.4     | 3.9         |
| Other tuberculosis  | A17-A19  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 0.0   | 0.2     | 0.7     | 1.2         |
| Septicaemia   | A40-A41  | 2.6  | 0.4  | 0.1   | 0.2   | 0.3   | 2.1   | 4.9   | 15.5    | 53.5    | 162.0       |
| Viral hepatitis   | B15-B19  | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 1.6   | 1.9   | 5.9     | 10.8    | 10.6        |
| HIV disease   | B20-B24  | 0.0  | 0.0  | 0.0   | 0.1   | 1.4   | 7.3   | 6.5   | 0.9     | 0.7     | 0.7         |
| Malignant neoplasms (cancer)  | C00-C97  | 2.8  | 2.7  | 2.5   | 4.8   | 7.3   | 30.9  | 128.5 | 623.2   | 1,174.0 | 1,763.8     |
| Malignant neoplasm of lip, oral cavity and pharynx                      | C00-C14  | 0.0  | 0.0  | 0.0   | 0.1   | 0.1   | 0.9   | 5.8   | 12.6    | 14.1    | 20.0        |
| Malignant neoplasm of esophagus   | C15      | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.5   | 3.9   | 13.1    | 14.5    | 16.0        |
| Malignant neoplasm of stomach   | C16      | 0.0  | 0.0  | 0.0   | 0.0   | 0.3   | 1.8   | 6.4   | 34.8    | 70.5    | 103.9       |
| Malignant neoplasm of colon and rectum                                  | C18-C20  | 0.0  | 0.0  | 0.0   | 0.0   | 0.4   | 2.2   | 11.3  | 80.9    | 178.5   | 314.0       |
| Malignant neoplasm of liver   | C22      | 0.4  | 0.1  | 0.0   | 0.1   | 0.3   | 1.0   | 5.3   | 31.8    | 57.9    | 63.5        |
| Malignant neoplasm of pancreas  | C25      | 0.0  | 0.0  | 0.0   | 0.0   | 0.2   | 1.2   | 6.0   | 37.5    | 62.8    | 75.1        |
| Malignant neoplasm of larynx  | C32      | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.4   | 3.0   | 10.9    | 13.2    | 15.3        |
| Malignant neoplasm of trachea, bronchus and lung                        | C33-C34  | 0.0  | 0.0  | 0.0   | 0.2   | 0.4   | 35.1  | 88.2  | 150.2   | 209.5   | 174.8       |
| Malignant neoplasm of skin  | C43      | 0.0  | 0.0  | 0.0   | 0.0   | 0.2   | 0.8   | 3.4   | 5.2     | 8.4     | 11.9        |
| Malignant neoplasm of breast  | C50      | 0.0  | 0.0  | 0.0   | 0.0   | 0.7   | 5.3   | 21.4  | 28.8    | 53.4    | 118.6       |
| Malignant neoplasm of cervix uteri                                      | C53      | 0.0  | 0.0  | 0.0   | 0.0   | 0.2   | 1.0   | 2.5   | 3.0     | 4.0     | 6.4         |
| Malignant neoplasm of corpus uteri                                      | C54-C55  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 1.3   | 3.9   | 9.3     | 15.6    | 29.2        |
| Malignant neoplasm of ovary   | C56      | 0.0  | 0.1  | 0.0   | 0.1   | 0.1   | 0.8   | 7.9   | 11.5    | 19.2    | 19.3        |
| Malignant neoplasm of prostate  | C61      | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 6.0   | 26.7    | 83.8    | 184.6       |
| Malignant neoplasm of kidney and renal pelvis                           | C64-C65  | 0.0  | 0.1  | 0.1   | 0.1   | 0.1   | 0.6   | 2.7   | 5.8     | 11.0    | 28.0        |
| Malignant neoplasm of bladder   | C67      | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 0.3   | 2.4   | 10.0    | 25.8    | 123.7       |
| Malignant neoplasm of brain   | C71      | 1.0  | 0.8  | 0.6   | 0.5   | 0.9   | 1.9   | 4.8   | 17.0    | 21.8    | 16.6        |
| Lymphomas   | C81-C85  | 0.0  | 0.1  | 0.3   | 0.5   | 0.7   | 1.7   | 2.8   | 6.6     | 15.4    | 42.7        |
| Hodgkin's disease   | C81      | 0.0  | 0.0  | 0.0   | 0.2   | 0.2   | 0.4   | 0.4   | 1.2     | 2.2     | 2.3         |
| Non-Hodgkin's lymphomas   | C82-C85  | 0.0  | 0.1  | 0.2   | 0.3   | 0.4   | 1.3   | 2.4   | 6.0     | 14.3    | 40.3        |
| Multiple myeloma and immunoproliferative diseases                       | C88, C90 | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 0.2   | 0.8   | 4.1     | 10.3    | 36.5        |
| Leukaemias  | C91-C95  | 0.8  | 0.8  | 0.7   | 1.3   | 0.9   | 1.0   | 2.3   | 6.8     | 16.1    | 60.7        |
| Carcinoma in situ, benign neoplasms and neoplasms of unspecified nature | D00-D48  | 0.8  | 0.3  | 0.5   | 0.3   | 0.3   | 1.0   | 2.4   | 15.2    | 43.5    | 102.1       |

**Table 5. Crude mortality rate for selected causes of death, by age, Spain, 2008. Both sexes (continued)**

| Cause of death (based on ICD, 10th revision)     | Age                        |     |      |       |       |       |       |       |       |         |             |
|--|----------------------------|-----|------|-------|-------|-------|-------|-------|-------|---------|-------------|
|  | < 1                        | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84   | 85 and over |
| Anaemias   | D50-D64                    | 0.2 | 0.2  | 0.1   | 0.1   | 0.1   | 0.2   | 0.6   | 1.7   | 8.9     | 52.8        |
| Diabetes mellitus                                | E10-E14                    | 0.0 | 0.0  | 0.0   | 0.1   | 0.2   | 2.4   | 9.4   | 37.9  | 140.0   | 429.8       |
| Vascular and other unspecified dementias         | F01, F03                   | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.2   | 1.5   | 14.1  | 128.4   | 857.3       |
| Spinal muscular atrophy                          | G12                        | 3.0 | 0.2  | 0.0   | 0.1   | 0.1   | 1.2   | 3.3   | 8.3   | 8.9     | 5.9         |
| Parkinson's disease                              | G20-G21                    | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.2   | 0.9   | 7.4   | 45.1    | 106.7       |
| Alzheimer's disease                              | G30                        | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 2.0   | 17.2  | 153.0   | 560.7       |
| Diseases of the circulatory system               | I00-I99                    | 2.6 | 0.9  | 1.0   | 2.3   | 4.8   | 54.2  | 130.6 | 396.5 | 1,477.0 | 5,755.0     |
| Diseases of heart                                | I00-I09, I11, I13, I20-I51 | 2.6 | 0.6  | 0.5   | 1.7   | 3.2   | 39.4  | 94.4  | 266.9 | 947.7   | 3,691.6     |
| Rheumatic heart diseases                         | I00-I09                    | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.5   | 2.1   | 8.0   | 20.0    | 35.7        |
| Hypertensive heart disease                       | I11                        | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.5   | 1.1   | 5.9   | 36.0    | 195.8       |
| Ischemic heart disease                           | I20-I25                    | 0.2 | 0.0  | 0.0   | 0.3   | 1.0   | 24.2  | 60.2  | 153.2 | 444.7   | 1,323.6     |
| Heart failure                                    | I50                        | 0.2 | 0.0  | 0.1   | 0.2   | 0.3   | 3.8   | 9.3   | 34.8  | 207.3   | 1,291.6     |
| Hypertensive diseases                            | I10, I12, I15              | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.8   | 2.2   | 10.1  | 45.2    | 244.5       |
| Cerebrovascular diseases                         | I60-I69                    | 0.0 | 0.4  | 0.4   | 0.5   | 1.3   | 11.3  | 26.1  | 95.7  | 409.2   | 1,504.2     |
| Diseases of arteries, arterioles and capillaries | I70-I78                    | 0.0 | 0.0  | 0.1   | 0.1   | 0.2   | 2.3   | 7.0   | 21.6  | 67.1    | 284.3       |
| Atherosclerosis                                  | I70                        | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.2   | 0.7   | 3.2   | 25.1    | 182.6       |
| Aortic aneurysm and dissection                   | I71                        | 0.0 | 0.0  | 0.1   | 0.1   | 0.1   | 1.6   | 4.4   | 12.8  | 26.0    | 37.4        |
| Diseases of the respiratory system               | J00-J99                    | 5.5 | 0.8  | 0.6   | 1.2   | 2.2   | 12.3  | 33.5  | 130.6 | 550.7   | 2,171.7     |
| Influenza and pneumonia                          | J10-J18                    | 1.2 | 0.4  | 0.1   | 0.4   | 0.4   | 3.2   | 6.3   | 20.5  | 106.4   | 507.3       |
| Other acute lower respiratory infections         | J20-J28                    | 2.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 0.1   | 1.2   | 11.3    | 79.7        |
| Chronic lower respiratory diseases               | J40-J47                    | 0.2 | 0.1  | 0.1   | 0.2   | 0.3   | 3.0   | 13.4  | 59.6  | 211.7   | 600.6       |
| Chronic and unspecified bronchitis               | J40-J42                    | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 0.6   | 2.5   | 10.0    | 48.7        |
| Emphysema  | J43                        | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.4   | 0.8   | 3.3   | 7.3     | 12.3        |
| Asthma   | J45-J46                    | 0.0 | 0.1  | 0.1   | 0.2   | 0.2   | 0.5   | 0.8   | 2.3   | 9.8     | 31.7        |
| Pneumonitis due to solids and liquids            | J69                        | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.3   | 1.0   | 3.6   | 21.8    | 123.8       |
| Respiratory failure, not elsewhere classified    | J96                        | 0.8 | 0.1  | 0.1   | 0.2   | 0.2   | 1.0   | 2.5   | 9.4   | 42.2    | 174.2       |
| Diseases of the digestive system                 | K00-K93                    | 1.2 | 0.3  | 0.3   | 0.6   | 1.1   | 22.8  | 40.5  | 81.5  | 220.4   | 642.0       |
| Peptic ulcer                                     | K25-K28                    | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.4   | 0.9   | 1.6   | 5.2     | 17.4        |
| Appendicitis                                     | K35-K38                    | 0.0 | 0.1  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.9     | 2.3         |
| Hernia and intestinal obstruction                | K40-K46, K56               | 0.4 | 0.0  | 0.0   | 0.0   | 0.1   | 0.5   | 1.1   | 5.1   | 29.4    | 119.4       |
| Vascular disorders of intestine                  | K55                        | 0.0 | 0.0  | 0.0   | 0.1   | 0.0   | 0.7   | 2.3   | 9.0   | 40.9    | 142.0       |
| Chronic liver disease and cirrhosis              | K70, K73-K74               | 0.0 | 0.0  | 0.0   | 0.0   | 0.4   | 13.5  | 22.1  | 31.6  | 36.2    | 21.6        |
| Alcoholic liver disease                          | K70                        | 0.0 | 0.0  | 0.0   | 0.0   | 0.2   | 4.9   | 7.9   | 8.0   | 4.8     | 1.7         |
| Cholelithiasis and other gallbladder diseases    | K80-K82                    | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.3   | 0.4   | 3.7   | 17.2    | 73.3        |
| Acute pancreatitis                               | K85                        | 0.0 | 0.0  | 0.0   | 0.1   | 0.1   | 0.9   | 1.9   | 5.9   | 15.9    | 39.4        |

**Table 5. Crude mortality rate for selected causes of death, by age. Spain, 2008. Both sexes (continued)**

| Cause of death (based on ICD, 10th revision)  | Age   |     |      |       |       |       |       |       |       |       |             |
|---|-------|-----|------|-------|-------|-------|-------|-------|-------|-------|-------------|
|   | < 1   | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 | 85 and over |
| Nephritis, nephrotic syndrome and nephrosis   | 0.4   | 0.1 | 0.0  | 0.1   | 0.2   | 0.3   | 1.5   | 4.5   | 17.5  | 85.1  | 355.3       |
| Renal failure   | 0.4   | 0.0 | 0.0  | 0.1   | 0.2   | 0.3   | 1.4   | 4.3   | 16.7  | 83.2  | 360.8       |
| Kidney infections   | 0.0   | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 0.2   | 0.4   | 2.5   | 5.6         |
| Hyperplasia of prostate   | 0.0   | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.2   | 1.3   | 7.7         |
| Inflammatory diseases of female pelvic organs   | 0.0   | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.2   | 0.7         |
| Certain conditions originating in the perinatal period  | 185.6 | 0.4 | 0.1  | 0.1   | 0.0   | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0         |
| Congenital malformations, deformations and chromosomal abnormalities  | 94.3  | 2.6 | 1.0  | 0.6   | 0.6   | 0.7   | 1.2   | 1.1   | 1.1   | 1.6   | 2.0         |
| Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified  | 20.2  | 1.2 | 0.2  | 1.6   | 2.8   | 5.8   | 9.7   | 12.5  | 24.3  | 88.6  | 636.3       |
| External causes of death  | 9.5   | 4.3 | 3.1  | 21.1  | 23.0  | 27.9  | 29.1  | 32.0  | 44.4  | 95.1  | 248.2       |
| Unintentional injuries  | 8.9   | 4.2 | 2.9  | 16.7  | 15.5  | 17.6  | 18.2  | 20.2  | 29.2  | 72.1  | 217.9       |
| Motor vehicle accidents   |       |     |      |       |       |       |       |       |       |       |             |
| V02-V04+V09.0+V09.2+V12-V14+V19.0-V19.2+V19.4-V19.6+V20-V79+V80.3-V80.5+V81.0-V81.1+V82.0-V82.1+V83-V86+V87.0-V87.8+V88.8-V88.9+V89.0-V89.2 | 1.8   | 1.2 | 1.1  | 10.7  | 7.6   | 6.8   | 6.4   | 6.4   | 7.8   | 11.3  | 8.3         |
| Falls   | 0.2   | 0.7 | 0.2  | 0.8   | 1.1   | 1.3   | 2.3   | 3.4   | 5.9   | 18.0  | 58.4        |
| Accidental drowning and submersion  | 1.2   | 0.7 | 0.4  | 0.9   | 0.7   | 0.8   | 0.9   | 1.2   | 2.0   | 2.2   | 2.8         |
| Accidental poisoning by exposure to noxious substances  | 0.0   | 0.0 | 0.1  | 1.2   | 2.5   | 4.0   | 2.7   | 1.0   | 0.7   | 2.0   | 3.1         |
| Suicide   | 0.0   | 0.0 | 0.1  | 3.3   | 6.1   | 8.6   | 9.4   | 10.0  | 12.1  | 16.5  | 17.9        |
| Assault   | 0.4   | 0.1 | 0.1  | 0.9   | 1.1   | 1.1   | 1.0   | 0.7   | 0.6   | 0.7   | 0.9         |
| Complications of medical and surgical care  | 0.2   | 0.0 | 0.0  | 0.1   | 0.1   | 0.1   | 0.3   | 0.9   | 2.0   | 5.0   | 11.1        |

**Table 5. Crude mortality rate for selected causes of death, by age, Spain, 2008. Men (continued)**

| Cause of death (based on ICD, 10th revision)                            | Age      |      |      |       |       |       |       |       |         |         |             |  |  |
|---|----------|------|------|-------|-------|-------|-------|-------|---------|---------|-------------|--|--|
|   | < 1      | 1-4  | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74   | 75-84   | 85 and over |  |  |
| All causes  | 388.6    | 18.6 | 13.8 | 52.6  | 68.2  | 149.8 | 398.7 | 922.4 | 2,145.3 | 5,880.2 | 15,975.8    |  |  |
| Infectious and parasitic diseases                                       |          |      |      |       |       |       |       |       |         |         |             |  |  |
| A00-B99   | 6.7      | 1.4  | 0.4  | 0.7   | 2.5   | 15.1  | 18.3  | 14.5  | 32.5    | 96.0    | 234.1       |  |  |
| Diarrhoea and infectious gastroenteritis                                | A09      | 0.4  | 0.0  | 0.0   | 0.0   | 0.1   | 0.0   | 0.1   | 0.7     | 4.4     | 25.0        |  |  |
| Tuberculosis  | A16-A19  | 0.0  | 0.0  | 0.0   | 0.0   | 0.4   | 0.9   | 0.9   | 1.3     | 4.6     | 9.0         |  |  |
| Respiratory tuberculosis  | A16      | 0.0  | 0.0  | 0.0   | 0.0   | 0.3   | 0.7   | 0.8   | 1.1     | 3.8     | 7.3         |  |  |
| Other tuberculosis  | A17-A19  | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 0.2   | 0.1   | 0.2     | 0.8     | 1.7         |  |  |
| Septicaemia   | A40-A41  | 2.8  | 0.7  | 0.2   | 0.3   | 1.5   | 2.9   | 6.1   | 18.9    | 63.5    | 168.3       |  |  |
| Viral hepatitis   | B15-B19  | 0.0  | 0.0  | 0.0   | 0.0   | 1.6   | 2.8   | 2.3   | 5.4     | 9.7     | 8.0         |  |  |
| HIV disease   | B20-B24  | 0.0  | 0.0  | 0.0   | 0.1   | 1.8   | 10.4  | 3.3   | 1.7     | 1.4     | 0.7         |  |  |
| Malignant neoplasms (cancer)  | C00-C97  | 3.9  | 3.4  | 3.1   | 5.3   | 7.6   | 154.4 | 452.4 | 925.3   | 1,788.5 | 2,779.0     |  |  |
| Malignant neoplasm of lip, oral cavity and pharynx                      | C00-C14  | 0.0  | 0.0  | 0.0   | 0.1   | 0.1   | 10.1  | 21.0  | 23.6    | 22.7    | 28.4        |  |  |
| Malignant neoplasm of esophagus   | C15      | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 7.2   | 17.0  | 25.4    | 29.2    | 34.7        |  |  |
| Malignant neoplasm of stomach   | C16      | 0.0  | 0.0  | 0.0   | 0.0   | 0.4   | 8.6   | 23.4  | 53.1    | 102.4   | 135.2       |  |  |
| Malignant neoplasm of colon and rectum                                  | C18-C20  | 0.0  | 0.0  | 0.0   | 0.1   | 0.5   | 12.8  | 46.6  | 114.6   | 258.9   | 440.8       |  |  |
| Malignant neoplasm of liver   | C22      | 0.4  | 0.1  | 0.0   | 0.2   | 0.5   | 8.6   | 22.5  | 48.9    | 85.1    | 86.2        |  |  |
| Malignant neoplasm of pancreas  | C25      | 0.0  | 0.0  | 0.0   | 0.0   | 0.2   | 8.2   | 23.0  | 47.3    | 72.6    | 81.8        |  |  |
| Malignant neoplasm of larynx  | C32      | 0.0  | 0.0  | 0.0   | 0.0   | 0.8   | 5.6   | 16.0  | 23.3    | 31.0    | 44.7        |  |  |
| Malignant neoplasm of trachea, bronchus and lung                        | C33-C34  | 0.0  | 0.0  | 0.0   | 0.2   | 0.6   | 52.9  | 156.5 | 291.4   | 443.8   | 420.4       |  |  |
| Malignant neoplasm of skin  | C43      | 0.0  | 0.0  | 0.0   | 0.1   | 0.3   | 1.6   | 4.4   | 6.9     | 12.0    | 14.4        |  |  |
| Malignant neoplasm of breast  | C50      | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 0.6   | 0.7     | 2.0     | 4.7         |  |  |
| Malignant neoplasm of cervix uteri                                      | C53      | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0     | 0.0     | 0.0         |  |  |
| Malignant neoplasm of corpus uteri                                      | C54-C55  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0     | 0.0     | 0.0         |  |  |
| Malignant neoplasm of ovary   | C56      | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0     | 0.0     | 0.0         |  |  |
| Malignant neoplasm of prostate  | C61      | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 1.1   | 12.3  | 57.7    | 204.3   | 579.4       |  |  |
| Malignant neoplasm of kidney and renal pelvis                           | C64-C65  | 0.0  | 0.1  | 0.0   | 0.1   | 0.1   | 4.0   | 8.3   | 16.5    | 35.9    | 45.1        |  |  |
| Malignant neoplasm of bladder   | C67      | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 4.0   | 19.0  | 48.9    | 135.3   | 266.8       |  |  |
| Malignant neoplasm of brain   | C71      | 2.0  | 1.2  | 0.9   | 0.4   | 1.2   | 5.7   | 13.8  | 20.7    | 25.7    | 22.4        |  |  |
| Lymphomas   | C81-C85  | 0.0  | 0.1  | 0.4   | 0.5   | 0.9   | 4.3   | 8.3   | 19.7    | 43.6    | 51.4        |  |  |
| Hodgkin's disease   | C81      | 0.0  | 0.0  | 0.0   | 0.1   | 0.4   | 0.6   | 1.0   | 1.5     | 2.6     | 3.0         |  |  |
| Non-Hodgkin's lymphomas   | C82-C85  | 0.0  | 0.1  | 0.4   | 0.4   | 0.5   | 3.7   | 7.4   | 18.2    | 41.1    | 48.4        |  |  |
| Multiple myeloma and immunoproliferative diseases                       | C88, C90 | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 0.9   | 4.2   | 11.3    | 26.0    | 56.1        |  |  |
| Leukaemias  | C91-C95  | 0.8  | 0.7  | 1.0   | 1.7   | 1.0   | 2.4   | 8.4   | 21.5    | 56.7    | 88.8        |  |  |
| Carcinoma in situ, benign neoplasms and neoplasms of unspecified nature | D00-D48  | 0.4  | 0.3  | 0.3   | 0.3   | 0.3   | 2.6   | 8.3   | 19.5    | 59.2    | 133.2       |  |  |



**Table 5. Crude mortality rate for selected causes of death, by age, Spain, 2008. Men (continued)**

| Cause of death (based on ICD, 10th revision)     | Age |     |       |       |      |       |       |       |       |         |             |  |
|--|-----|-----|-------|-------|------|-------|-------|-------|-------|---------|-------------|--|
|  | < 1 | 1-4 | 25-14 | 15-24 | 5-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84   | 85 and over |  |
| Anaemias   |     |     |       |       |      |       |       |       |       |         |             |  |
| D50-D64  | 0.0 | 0.2 | 0.2   | 0.2   | 0.2  | 0.2   | 0.3   | 0.8   | 1.8   | 8.7     | 51.1        |  |
| Diabetes mellitus                                |     |     |       |       |      |       |       |       |       |         |             |  |
| E10-E14  | 0.0 | 0.0 | 0.0   | 0.2   | 0.3  | 0.8   | 3.6   | 13.4  | 47.0  | 148.5   | 386.4       |  |
| Vascular and other unspecified dementias         |     |     |       |       |      |       |       |       |       |         |             |  |
| F01, F03   | 0.0 | 0.0 | 0.0   | 0.0   | 0.0  | 0.1   | 0.3   | 2.3   | 17.0  | 134.8   | 669.2       |  |
| Spinal muscular atrophy                          |     |     |       |       |      |       |       |       |       |         |             |  |
| G12  | 3.9 | 0.0 | 0.0   | 0.1   | 0.2  | 0.6   | 1.7   | 3.5   | 9.2   | 10.9    | 7.7         |  |
| Parkinson's disease                              |     |     |       |       |      |       |       |       |       |         |             |  |
| G20-G21  | 0.0 | 0.0 | 0.0   | 0.0   | 0.0  | 0.0   | 0.2   | 1.4   | 8.8   | 61.3    | 141.6       |  |
| Alzheimer's disease                              |     |     |       |       |      |       |       |       |       |         |             |  |
| G30  | 0.0 | 0.0 | 0.0   | 0.0   | 0.0  | 0.1   | 0.0   | 2.1   | 15.6  | 137.0   | 409.7       |  |
| Diseases of the circulatory system               |     |     |       |       |      |       |       |       |       |         |             |  |
| I00-I99  | 3.5 | 0.4 | 1.4   | 2.9   | 6.4  | 24.3  | 85.6  | 206.8 | 560.8 | 1,762.9 | 5,493.5     |  |
| Diseases of heart                                |     |     |       |       |      |       |       |       |       |         |             |  |
| I00-I09  | 3.5 | 0.1 | 0.7   | 2.1   | 4.6  | 18.5  | 65.6  | 154.5 | 378.3 | 1,134.8 | 3,565.7     |  |
| Rheumatic heart diseases                         |     |     |       |       |      |       |       |       |       |         |             |  |
| I11  | 0.0 | 0.0 | 0.0   | 0.0   | 0.2  | 0.2   | 0.6   | 2.1   | 5.4   | 13.5    | 26.0        |  |
| Hypertensive heart disease                       |     |     |       |       |      |       |       |       |       |         |             |  |
| I11  | 0.0 | 0.0 | 0.0   | 0.0   | 0.0  | 0.1   | 0.8   | 1.8   | 6.3   | 32.5    | 130.9       |  |
| Ischemic heart disease                           |     |     |       |       |      |       |       |       |       |         |             |  |
| I20-I25  | 0.0 | 0.0 | 0.0   | 0.5   | 1.7  | 9.8   | 42.8  | 104.8 | 240.0 | 615.3   | 1,580.5     |  |
| Heart failure                                    |     |     |       |       |      |       |       |       |       |         |             |  |
| I50  | 0.4 | 0.0 | 0.1   | 0.3   | 0.5  | 2.7   | 5.8   | 13.8  | 42.6  | 205.4   | 1,059.9     |  |
| Hypertensive diseases                            |     |     |       |       |      |       |       |       |       |         |             |  |
| I10, I12, I15                                    | 0.0 | 0.0 | 0.0   | 0.0   | 0.0  | 0.3   | 1.1   | 3.3   | 14.5  | 47.0    | 183.3       |  |
| Cerebrovascular diseases                         |     |     |       |       |      |       |       |       |       |         |             |  |
| I60-I69  | 0.0 | 0.3 | 0.5   | 0.6   | 1.5  | 4.2   | 14.5  | 35.7  | 127.7 | 466.9   | 1,404.8     |  |
| Diseases of arteries, arterioles and capillaries |     |     |       |       |      |       |       |       |       |         |             |  |
| I70-I78  | 0.0 | 0.0 | 0.1   | 0.1   | 0.2  | 0.9   | 3.8   | 12.3  | 37.5  | 106.0   | 318.9       |  |
| Atherosclerosis                                  |     |     |       |       |      |       |       |       |       |         |             |  |
| I70  | 0.0 | 0.0 | 0.0   | 0.0   | 0.0  | 0.1   | 0.3   | 1.1   | 4.4   | 30.1    | 165.6       |  |
| Aortic aneurysm and dissection                   |     |     |       |       |      |       |       |       |       |         |             |  |
| I71  | 0.0 | 0.0 | 0.1   | 0.1   | 0.2  | 0.7   | 2.8   | 8.0   | 23.8  | 53.3    | 83.8        |  |
| Diseases of the respiratory system               |     |     |       |       |      |       |       |       |       |         |             |  |
| J00-J99  | 7.5 | 0.5 | 0.5   | 1.6   | 3.3  | 7.8   | 17.9  | 52.2  | 209.7 | 876.1   | 3,065.2     |  |
| Influenza and pneumonia                          |     |     |       |       |      |       |       |       |       |         |             |  |
| J10-J18  | 2.0 | 0.1 | 0.0   | 0.5   | 0.4  | 2.0   | 5.0   | 9.4   | 30.9  | 155.2   | 677.9       |  |
| Other acute lower respiratory infections         |     |     |       |       |      |       |       |       |       |         |             |  |
| J20-J28  | 2.8 | 0.0 | 0.0   | 0.0   | 0.0  | 0.0   | 0.2   | 0.2   | 1.7   | 13.8    | 82.1        |  |
| Chronic lower respiratory diseases               |     |     |       |       |      |       |       |       |       |         |             |  |
| J40-J47  | 0.4 | 0.1 | 0.0   | 0.3   | 0.4  | 0.6   | 4.2   | 22.5  | 110.6 | 411.8   | 1,229.2     |  |
| Chronic and unspecified bronchitis               |     |     |       |       |      |       |       |       |       |         |             |  |
| J40-J42  | 0.0 | 0.0 | 0.0   | 0.0   | 0.0  | 0.1   | 0.2   | 1.1   | 4.8   | 18.4    | 75.5        |  |
| Emphysema  |     |     |       |       |      |       |       |       |       |         |             |  |
| J43  | 0.0 | 0.0 | 0.0   | 0.0   | 0.0  | 0.1   | 0.6   | 1.6   | 6.4   | 15.5    | 28.7        |  |
| Asthma   |     |     |       |       |      |       |       |       |       |         |             |  |
| J45-J46  | 0.0 | 0.1 | 0.0   | 0.3   | 0.2  | 0.1   | 0.4   | 0.8   | 2.2   | 4.0     | 13.0        |  |
| Pneumonitis due to solids and liquids            |     |     |       |       |      |       |       |       |       |         |             |  |
| J69  | 0.0 | 0.0 | 0.0   | 0.0   | 0.1  | 0.3   | 0.5   | 1.9   | 5.6   | 30.5    | 158.6       |  |
| Respiratory failure, not elsewhere classified    |     |     |       |       |      |       |       |       |       |         |             |  |
| J96  | 0.8 | 0.1 | 0.2   | 0.3   | 0.3  | 0.9   | 1.4   | 3.5   | 13.0  | 54.1    | 187.7       |  |
| Diseases of the digestive system                 |     |     |       |       |      |       |       |       |       |         |             |  |
| K00-K93  | 1.6 | 0.2 | 0.3   | 0.7   | 1.3  | 10.2  | 35.1  | 64.1  | 119.2 | 270.5   | 660.2       |  |
| Peptic ulcer                                     |     |     |       |       |      |       |       |       |       |         |             |  |
| K25-K28  | 0.0 | 0.0 | 0.0   | 0.0   | 0.0  | 0.2   | 0.6   | 1.5   | 2.9   | 7.4     | 20.7        |  |
| Appendicitis                                     |     |     |       |       |      |       |       |       |       |         |             |  |
| K35-K38  | 0.0 | 0.0 | 0.0   | 0.0   | 0.0  | 0.1   | 0.0   | 0.1   | 0.2   | 1.2     | 3.7         |  |
| Hernia and intestinal obstruction                |     |     |       |       |      |       |       |       |       |         |             |  |
| K40-K46, K56                                     | 0.4 | 0.0 | 0.0   | 0.0   | 0.1  | 0.1   | 0.7   | 1.4   | 6.7   | 32.4    | 119.2       |  |
| Vascular disorders of intestine                  |     |     |       |       |      |       |       |       |       |         |             |  |
| K55  | 0.0 | 0.0 | 0.0   | 0.1   | 0.0  | 0.2   | 0.8   | 3.3   | 12.9  | 46.2    | 132.6       |  |
| Chronic liver disease and cirrhosis              |     |     |       |       |      |       |       |       |       |         |             |  |
| K70, K73-K74                                     | 0.0 | 0.0 | 0.0   | 0.1   | 0.5  | 5.3   | 21.6  | 37.4  | 49.5  | 52.6    | 31.1        |  |
| Alcoholic liver disease                          |     |     |       |       |      |       |       |       |       |         |             |  |
| K70  | 0.0 | 0.0 | 0.0   | 0.0   | 0.2  | 2.1   | 7.8   | 14.2  | 14.7  | 9.9     | 4.0         |  |
| Cholelithiasis and other gallbladder diseases    |     |     |       |       |      |       |       |       |       |         |             |  |
| K80-K82  | 0.0 | 0.0 | 0.0   | 0.0   | 0.1  | 0.1   | 0.5   | 0.7   | 4.6   | 20.2    | 72.1        |  |
| Acute pancreatitis                               |     |     |       |       |      |       |       |       |       |         |             |  |
| K85  | 0.0 | 0.0 | 0.0   | 0.2   | 0.1  | 0.7   | 1.2   | 2.8   | 8.0   | 19.0    | 42.1        |  |



**Table 5. Crude mortality rate for selected causes of death, by age. Spain, 2008. Women (continued)**

| Cause of death (based on ICD, 10th revision)                            | Age   |      |      |       |       |       |       |       |       |         |             |
|---|-------|------|------|-------|-------|-------|-------|-------|-------|---------|-------------|
|   | < 1   | 1-4  | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84   | 85 and over |
| All causes  | 313.7 | 17.7 | 9.4  | 19.7  | 26.4  | 73.6  | 178.5 | 357.5 | 934.3 | 3,489.2 | 13,903.7    |
| Infectious and parasitic diseases                                       | 5.0   | 0.7  | 0.2  | 0.6   | 1.5   | 4.4   | 5.2   | 6.9   | 22.7  | 72.1    | 219.7       |
| A00-B99   |       |      |      |       |       |       |       |       |       |         |             |
| A09   | 0.0   | 0.1  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.5   | 4.9     | 25.6        |
| A16-A19   | 0.0   | 0.0  | 0.0  | 0.0   | 0.1   | 0.0   | 0.4   | 0.0   | 0.6   | 2.0     | 3.3         |
| A16   | 0.0   | 0.0  | 0.0  | 0.0   | 0.1   | 0.0   | 0.3   | 0.0   | 0.4   | 1.4     | 2.3         |
| A17-A19   | 0.0   | 0.0  | 0.0  | 0.0   | 0.1   | 0.0   | 0.1   | 0.0   | 0.2   | 0.6     | 0.9         |
| A40-A41   | 2.5   | 0.1  | 0.0  | 0.1   | 0.2   | 0.5   | 1.2   | 3.8   | 12.5  | 46.5    | 159.1       |
| B15-B19   | 0.0   | 0.0  | 0.0  | 0.0   | 0.1   | 0.4   | 0.4   | 1.5   | 6.4   | 11.5    | 11.9        |
| B20-B24   | 0.0   | 0.0  | 0.0  | 0.2   | 0.9   | 3.3   | 2.5   | 0.5   | 0.3   | 0.2     | 0.8         |
| HIV disease   | 0.0   | 0.0  | 0.0  | 4.3   | 6.9   | 33.1  | 102.8 | 198.9 | 364.1 | 746.7   | 1,289.2     |
| C00-C97   | 1.7   | 2.1  | 1.9  | 0.0   | 0.0   | 0.0   | 1.4   | 2.7   | 3.2   | 8.1     | 16.1        |
| C00-C14   | 0.0   | 0.0  | 0.0  | 0.1   | 0.0   | 0.3   | 0.7   | 1.6   | 2.5   | 4.3     | 7.2         |
| C15   | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 0.7   | 1.6   | 2.5   | 4.3     | 7.2         |
| C16   | 0.0   | 0.0  | 0.0  | 0.0   | 0.2   | 1.9   | 4.2   | 8.4   | 19.1  | 48.3    | 89.3        |
| C18-C20   | 0.0   | 0.0  | 0.0  | 0.0   | 0.4   | 2.3   | 9.9   | 24.7  | 52.0  | 122.7   | 254.7       |
| C22   | 0.4   | 0.0  | 0.0  | 0.0   | 0.1   | 0.3   | 1.9   | 4.4   | 17.2  | 39.1    | 52.9        |
| C25   | 0.0   | 0.0  | 0.0  | 0.0   | 0.1   | 1.2   | 3.7   | 11.7  | 29.0  | 56.0    | 72.0        |
| C32   | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.4   | 0.6   | 0.3   | 0.8     | 1.6         |
| C33-C34   | 0.0   | 0.0  | 0.0  | 0.1   | 0.2   | 3.7   | 17.4  | 23.8  | 29.0  | 46.7    | 60.0        |
| C43   | 0.0   | 0.0  | 0.0  | 0.0   | 0.2   | 0.5   | 1.2   | 2.4   | 3.7   | 5.9     | 10.8        |
| C50   | 0.0   | 0.0  | 0.0  | 0.0   | 1.4   | 10.8  | 28.6  | 41.0  | 52.9  | 89.1    | 171.9       |
| C53   | 0.0   | 0.0  | 0.0  | 0.0   | 0.4   | 2.0   | 3.8   | 4.8   | 5.6   | 6.8     | 9.4         |
| C54-C55   | 0.0   | 0.0  | 0.0  | 0.0   | 0.1   | 0.4   | 2.5   | 7.5   | 17.3  | 26.4    | 42.8        |
| C56   | 0.0   | 0.1  | 0.0  | 0.1   | 0.3   | 1.6   | 6.6   | 15.4  | 21.4  | 32.6    | 28.3        |
| C61   | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0     | 0.0         |
| C64-C65   | 0.0   | 0.1  | 0.1  | 0.1   | 0.1   | 0.4   | 1.4   | 3.4   | 6.2   | 13.4    | 20.0        |
| C67   | 0.0   | 0.0  | 0.0  | 0.0   | 0.1   | 0.2   | 0.8   | 1.6   | 6.0   | 18.6    | 56.8        |
| C71   | 0.0   | 0.3  | 0.3  | 0.6   | 0.6   | 1.4   | 4.0   | 7.6   | 13.9  | 19.1    | 13.9        |
| C81-C85   | 0.0   | 0.1  | 0.1  | 0.4   | 0.4   | 1.4   | 1.3   | 5.0   | 11.8  | 28.8    | 38.6        |
| C81   | 0.0   | 0.0  | 0.0  | 0.3   | 0.1   | 0.3   | 0.1   | 0.3   | 0.9   | 2.0     | 2.0         |
| C82-C85   | 0.0   | 0.1  | 0.1  | 0.2   | 0.3   | 1.1   | 1.2   | 4.7   | 10.9  | 26.8    | 36.5        |
| C88, C90  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.2   | 0.7   | 3.9   | 9.4   | 23.5    | 27.3        |
| C91-C95   | 0.8   | 0.9  | 0.4  | 0.9   | 0.7   | 0.9   | 2.2   | 5.2   | 11.5  | 27.8    | 47.6        |
| Carcinoma in situ, benign neoplasms and neoplasms of unspecified nature | 1.3   | 0.3  | 0.7  | 0.2   | 0.3   | 1.0   | 2.1   | 4.8   | 11.4  | 32.7    | 87.6        |
| D00-D48   |       |      |      |       |       |       |       |       |       |         |             |

**Table 5. Crude mortality rate for selected causes of death, by age, Spain, 2008. Women (continued)**

| Cause of death (based on ICD, 10th revision)     | Age |     |      |       |       |       |       |       |       |         |             |
|--|-----|-----|------|-------|-------|-------|-------|-------|-------|---------|-------------|
|  | < 1 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84   | 85 and over |
| Anaemias   | 0.4 | 0.1 | 0.2  | 0.0   | 0.1   | 0.1   | 0.2   | 0.5   | 1.7   | 9.0     | 53.7        |
| Diabetes mellitus                                | 0.0 | 0.0 | 0.0  | 0.0   | 0.2   | 0.5   | 1.2   | 5.7   | 30.1  | 134.2   | 450.1       |
| Vascular and other unspecified dementias         | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.2   | 0.9   | 11.7  | 124.1   | 945.4       |
| Spinal muscular atrophy                          | 2.1 | 0.4 | 0.0  | 0.1   | 0.1   | 0.3   | 0.6   | 3.1   | 7.7   | 7.6     | 5.2         |
| Parkinson's disease                              | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 0.5   | 6.3   | 34.0    | 90.4        |
| Alzheimer's disease                              | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.2   | 1.9   | 18.7  | 164.3   | 631.4       |
| Diseases of the circulatory system               | 1.7 | 1.5 | 0.5  | 1.8   | 3.0   | 7.9   | 23.1  | 58.8  | 255.6 | 1,278.3 | 5,877.3     |
| Diseases of heart                                | 1.7 | 1.1 | 0.2  | 1.2   | 1.7   | 4.5   | 13.5  | 37.9  | 171.3 | 817.8   | 3,750.6     |
| Rheumatic heart diseases                         | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.4   | 2.3   | 10.3  | 24.6    | 40.3        |
| Hypertensive heart disease                       | 0.0 | 0.0 | 0.0  | 0.0   | 0.1   | 0.1   | 0.2   | 0.5   | 5.7   | 38.6    | 226.2       |
| Ischemic heart disease                           | 0.4 | 0.0 | 0.0  | 0.2   | 0.3   | 1.9   | 5.8   | 18.3  | 78.8  | 326.3   | 1,203.6     |
| Heart failure                                    | 0.0 | 0.0 | 0.1  | 0.1   | 0.2   | 0.7   | 1.8   | 5.2   | 28.2  | 208.7   | 1,400.0     |
| Hypertensive diseases                            | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.4   | 1.3   | 6.5   | 44.1    | 273.2       |
| Cerebrovascular diseases                         | 0.0 | 0.4 | 0.2  | 0.4   | 1.0   | 2.8   | 8.1   | 17.1  | 68.3  | 369.1   | 1,550.7     |
| Diseases of arteries, arterioles and capillaries | 0.0 | 0.0 | 0.0  | 0.1   | 0.2   | 0.3   | 0.8   | 2.1   | 8.1   | 40.1    | 268.2       |
| Atherosclerosis                                  | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 0.4   | 2.3   | 21.7    | 190.6       |
| Aortic aneurysm and dissection                   | 0.0 | 0.0 | 0.0  | 0.0   | 0.1   | 0.2   | 0.5   | 1.1   | 3.4   | 7.1     | 15.8        |
| Diseases of the respiratory system               | 3.3 | 1.1 | 0.6  | 0.7   | 1.1   | 3.4   | 6.6   | 15.9  | 62.8  | 324.6   | 1,744.6     |
| Influenza and pneumonia                          | 0.4 | 0.7 | 0.1  | 0.2   | 0.3   | 1.0   | 1.5   | 3.5   | 11.6  | 72.6    | 427.6       |
| Other acute lower respiratory infections         | 1.3 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.1   | 0.2   | 0.9   | 9.6     | 78.7        |
| Chronic lower respiratory diseases               | 0.0 | 0.0 | 0.2  | 0.2   | 0.1   | 0.6   | 1.8   | 5.0   | 15.9  | 72.6    | 306.8       |
| Chronic and unspecified bronchitis               | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.0   | 0.2   | 0.5   | 4.3     | 36.2        |
| Emphysema  | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.2   | 0.2   | 0.7   | 1.7     | 4.7         |
| Asthma   | 0.0 | 0.0 | 0.2  | 0.2   | 0.1   | 0.4   | 0.7   | 0.9   | 2.5   | 13.9    | 40.4        |
| Pneumonitis due to solids and liquids            | 0.0 | 0.0 | 0.0  | 0.0   | 0.1   | 0.1   | 0.1   | 0.4   | 2.1   | 15.9    | 107.6       |
| Respiratory failure, not elsewhere classified    | 0.8 | 0.0 | 0.1  | 0.0   | 0.2   | 0.4   | 0.6   | 1.7   | 6.4   | 33.9    | 168.0       |
| Diseases of the digestive system                 | 0.8 | 0.4 | 0.2  | 0.4   | 0.8   | 4.0   | 10.6  | 18.3  | 49.1  | 185.6   | 633.6       |
| Peptic ulcer                                     | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.3   | 0.4   | 0.5   | 3.8     | 15.9        |
| Appendicitis                                     | 0.0 | 0.1 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.8     | 1.7         |
| Hernia and intestinal obstruction                | 0.4 | 0.0 | 0.0  | 0.1   | 0.1   | 0.2   | 0.3   | 1.0   | 3.7   | 27.4    | 119.6       |
| Vascular disorders of intestine                  | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.6   | 1.5   | 5.8   | 37.3    | 146.5       |
| Chronic liver disease and cirrhosis              | 0.0 | 0.0 | 0.0  | 0.0   | 0.3   | 2.0   | 5.4   | 7.9   | 16.3  | 24.9    | 17.2        |
| Alcoholic liver disease                          | 0.0 | 0.0 | 0.0  | 0.0   | 0.2   | 0.7   | 2.0   | 2.2   | 2.3   | 1.2     | 0.6         |
| Cholelithiasis and other gallbladder diseases    | 0.0 | 0.0 | 0.0  | 0.0   | 0.0   | 0.1   | 0.2   | 0.3   | 2.9   | 15.3    | 73.9        |
| Acute pancreatitis                               | 0.0 | 0.0 | 0.0  | 0.0   | 0.1   | 0.2   | 0.5   | 1.2   | 4.2   | 13.8    | 38.3        |

**Table 5. Crude mortality rate for selected causes of death, by age. Spain, 2008. Women (continued)**

| Cause of death (based on ICD, 10th revision)   | Age   |     |      |       |       |       |       |       |       |       |             |
|--|-------|-----|------|-------|-------|-------|-------|-------|-------|-------|-------------|
|  | < 1   | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 | 85 and over |
| Nephritis, nephrotic syndrome and nephrosis N00-N07, N17-N19, N25-N27                            | 0.8   | 0.0 | 0.0  | 0.0   | 0.1   | 0.1   | 0.8   | 2.5   | 12.7  | 65.4  | 311.2       |
| Renal failure N17-N19  | 0.8   | 0.0 | 0.0  | 0.0   | 0.1   | 0.1   | 0.8   | 2.4   | 12.2  | 63.8  | 308.2       |
| Kidney infections N10-N12, N13.6, N15.1  | 0.0   | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.1   | 0.2   | 0.4   | 2.6   | 5.0         |
| Hyperplasia of prostate N40  | 0.0   | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0         |
| Inflammatory diseases of female pelvic organs N70-N76  | 0.0   | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.2   | 0.4   | 1.1         |
| Certain conditions originating in the perinatal period P00-P96                                   | 161.4 | 0.3 | 0.0  | 0.1   | 0.1   | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0         |
| Congenital malformations, deformations and chromosomal abnormalities Q00-Q99                     | 90.9  | 2.9 | 1.1  | 0.4   | 0.5   | 0.7   | 1.3   | 1.0   | 1.2   | 1.8   | 2.2         |
| Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified R00-R99 | 17.9  | 1.2 | 0.1  | 0.7   | 1.3   | 2.7   | 4.4   | 6.2   | 14.5  | 80.0  | 679.0       |
| External causes of death V01-Y98   | 5.4   | 3.5 | 2.2  | 7.8   | 7.9   | 10.9  | 11.5  | 15.3  | 24.4  | 69.5  | 220.6       |
| Unintentional injuries V01-X59.Y85-Y86   | 5.0   | 3.5 | 2.0  | 6.0   | 4.8   | 6.0   | 6.7   | 9.0   | 16.4  | 56.3  | 200.3       |
| Motor vehicle accidents V02-V04+V09.0+V09.2+V12-V14+V19.0-V19.2+V19.4-V19.6                      |       |     |      |       |       |       |       |       |       |       |             |
| V20-V79+V80.3-V80.5+V81.0-V81.1+V82.0-V82.1+V83-V86  | 1.7   | 1.5 | 0.9  | 3.9   | 1.9   | 2.3   | 2.2   | 3.3   | 3.8   | 6.8   | 5.5         |
| V87.0-V87.8+V88.8-V88.9+V89.0-V89.2  |       |     |      |       |       |       |       |       |       |       |             |
| Falls W00-W19  | 0.0   | 0.0 | 0.0  | 0.3   | 0.9   | 1.2   | 1.0   | 0.6   | 0.4   | 1.5   | 2.3         |
| Accidental drowning and submersion W65-W74   | 0.0   | 0.0 | 0.1  | 1.2   | 2.3   | 3.9   | 3.8   | 5.1   | 5.8   | 6.5   | 7.0         |
| Accidental poisoning by exposure to noxious substances X40-X49                                   | 0.4   | 0.0 | 0.1  | 0.4   | 0.6   | 0.7   | 0.7   | 0.4   | 0.3   | 0.5   | 1.2         |
| Suicide X60-X84+Y87.0  | 0.0   | 0.0 | 0.0  | 0.1   | 0.0   | 0.1   | 0.3   | 0.6   | 1.6   | 5.7   | 11.7        |
| Assault X85-Y09  | 0.0   | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0         |
| Complications of medical and surgical care Y40-Y84   | 0.0   | 0.0 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0         |

**Table 6. Number of deaths, crude mortality rate and age-adjusted mortality rate from selected causes of death, by sex, Spain, 2008**

| Cause of death (based on ICD, 10th revision)                            | Number of deaths |         |         | Crude mortality rate |       |       | Age-adjusted mortality rate |       |       |
|---|------------------|---------|---------|----------------------|-------|-------|-----------------------------|-------|-------|
|   | Both sexes       | Men     | Women   | Both sexes           | Men   | Women | Both sexes                  | Men   | Women |
|   | All causes       | 386,324 | 199,647 | 186,677              | 847.3 | 886.8 | 808.8                       | 519.7 | 681.1 |
| Infectious and parasitic diseases                                       | 7,708            | 4,038   | 3,670   | 16.9                 | 17.9  | 15.9  | 11.2                        | 14.3  | 8.3   |
| Diarhoea and infectious gastroenteritis                                 | 408              | 147     | 261     | 0.9                  | 0.7   | 1.1   | 519.6                       | 680.9 | 387.1 |
| Tuberculosis  | 256              | 171     | 85      | 0.6                  | 0.8   | 0.4   | 0.4                         | 0.6   | 0.2   |
| Respiratory tuberculosis  | 202              | 142     | 60      | 0.4                  | 0.6   | 0.3   | 519.2                       | 680.5 | 386.6 |
| Other tuberculosis  | 54               | 29      | 25      | 0.1                  | 0.1   | 0.1   | 0.1                         | 0.1   | 0.1   |
| Septicaemia   | 4,136            | 1,911   | 2,225   | 9.1                  | 8.5   | 9.6   | 5.3                         | 6.3   | 4.5   |
| Viral hepatitis   | 908              | 438     | 470     | 2.0                  | 1.9   | 2.0   | 1.4                         | 1.6   | 1.2   |
| HIV disease   | 1,211            | 947     | 264     | 2.7                  | 4.2   | 1.1   | 2.4                         | 3.8   | 1.0   |
| Malignant neoplasms (cancer)  | 100,675          | 62,582  | 38,093  | 220.8                | 278.0 | 165.0 | 154.6                       | 221.9 | 102.2 |
| Malignant neoplasm of lip, oral cavity and pharynx                      | 2,066            | 1,633   | 433     | 4.5                  | 7.3   | 1.9   | 3.7                         | 6.6   | 1.2   |
| Malignant neoplasm of esophagus   | 1,789            | 1,553   | 236     | 3.9                  | 6.9   | 1.0   | 504.8                       | 660.2 | 377.7 |
| Malignant neoplasm of stomach   | 5,628            | 3,435   | 2,193   | 12.3                 | 15.3  | 9.5   | 501.7                       | 654.2 | 377.0 |
| Malignant neoplasm of colon and rectum                                  | 13,742           | 7,955   | 5,787   | 30.1                 | 35.3  | 25.1  | 19.7                        | 27.1  | 14.1  |
| Malignant neoplasm of liver   | 4,528            | 2,994   | 1,534   | 9.9                  | 13.3  | 6.6   | 473.3                       | 614.5 | 357.3 |
| Malignant neoplasm of pancreas  | 5,233            | 2,778   | 2,455   | 11.5                 | 12.3  | 10.6  | 464.7                       | 602.1 | 351.9 |
| Malignant neoplasm of larynx  | 1,548            | 1,488   | 60      | 3.4                  | 6.6   | 0.3   | 455.5                       | 590.5 | 344.9 |
| Malignant neoplasm of trachea, bronchus and lung                        | 20,213           | 17,163  | 3,050   | 44.3                 | 76.2  | 13.2  | 33.8                        | 63.1  | 9.6   |
| Malignant neoplasm of skin  | 877              | 510     | 367     | 1.9                  | 2.3   | 1.6   | 418.1                       | 520.4 | 334.4 |
| Malignant neoplasm of breast  | 6,122            | 71      | 6,051   | 13.4                 | 0.3   | 26.2  | 414.3                       | 515.4 | 331.6 |
| Malignant neoplasm of cervix uteri                                      | 616              | 0       | 616     | 1.4                  | 0.0   | 2.7   | 404.0                       | 515.2 | 312.7 |
| Malignant neoplasm of corpus uteri                                      | 1,357            | 0       | 1,357   | 3.0                  | 0.0   | 5.9   | 2.0                         | 0.0   | 3.6   |
| Malignant neoplasm of ovary   | 1,832            | 0       | 1,832   | 4.0                  | 0.0   | 7.9   | 400.9                       | 515.2 | 306.9 |
| Malignant neoplasm of prostate  | 5,464            | 5,464   | 0       | 12.0                 | 24.3  | 0.0   | 397.5                       | 514.9 | 301.0 |
| Malignant neoplasm of kidney and renal pelvis                           | 1,837            | 1,204   | 633     | 4.0                  | 5.3   | 2.7   | 2.8                         | 4.3   | 1.7   |
| Malignant neoplasm of bladder   | 4,704            | 3,827   | 877     | 10.3                 | 17.0  | 3.8   | 387.7                       | 493.2 | 299.3 |
| Malignant neoplasm of brain   | 2,523            | 1,417   | 1,106   | 5.5                  | 6.3   | 4.8   | 380.8                       | 479.6 | 297.2 |
| Lymphomas   | 2,693            | 1,475   | 1,218   | 5.9                  | 6.6   | 5.3   | 4.0                         | 5.2   | 3.1   |
| Hodgkin's disease   | 241              | 144     | 97      | 0.5                  | 0.6   | 0.4   | 366.8                       | 461.9 | 286.4 |
| Non-Hodgkin's lymphomas   | 2,452            | 1,331   | 1,121   | 5.4                  | 5.9   | 4.9   | 3.6                         | 4.6   | 2.8   |
| Multiple myeloma and immunoproliferative diseases                       | 1,701            | 810     | 891     | 3.7                  | 3.6   | 3.9   | 2.4                         | 2.7   | 2.2   |
| Leukaemias  | 3,047            | 1,737   | 1,310   | 6.7                  | 7.7   | 5.7   | 4.5                         | 6.0   | 3.4   |
| Carcinoma in situ, benign neoplasms and neoplasms of unspecified nature | 3,379            | 1,776   | 1,603   | 7.4                  | 7.9   | 6.9   | 4.6                         | 5.9   | 3.7   |

**Table 6. Number of deaths, crude mortality rate and age-adjusted mortality rate from selected causes of death, by sex, Spain, 2008 (continued)**

| Cause of death (based on ICD, 10th revision)     | Number of deaths |        |        |       |       |       | Crude mortality rate |       |       |       |       |       | Age-adjusted mortality rate |       |       |     |     |       |       |  |  |
|--|------------------|--------|--------|-------|-------|-------|----------------------|-------|-------|-------|-------|-------|-----------------------------|-------|-------|-----|-----|-------|-------|--|--|
|  | Both sexes       |        |        | Women |       |       | Both sexes           |       |       | Men   |       |       | Both sexes                  |       |       | Men |     |       | Women |  |  |
|  |                  | Men    | Women  |       | Men   | Women |                      | Men   | Women |       | Men   | Women |                             | Men   | Women |     | Men | Women |       |  |  |
| Anaemias   | 900              | 337    | 563    | 2.0   | 1.5   | 2.4   | 2.0                  | 1.5   | 2.4   | 1.1   | 1.1   | 1.1   | 1.1                         | 1.1   | 1.0   |     |     |       |       |  |  |
| Diabetes mellitus                                | 10,153           | 4,193  | 5,960  | 22.3  | 18.6  | 25.8  | 22.3                 | 18.6  | 25.8  | 12.3  | 13.5  | 11.1  | 12.3                        | 13.5  | 11.1  |     |     |       |       |  |  |
| Vascular and other unspecified dementias         | 12,354           | 3,943  | 8,411  | 27.1  | 17.5  | 36.4  | 27.1                 | 17.5  | 36.4  | 13.2  | 11.9  | 13.6  | 13.2                        | 11.9  | 13.6  |     |     |       |       |  |  |
| Spinal muscular atrophy                          | 933              | 493    | 440    | 2.0   | 2.2   | 1.9   | 2.0                  | 2.2   | 1.9   | 1.6   | 1.9   | 1.4   | 1.6                         | 1.9   | 1.4   |     |     |       |       |  |  |
| Parkinson's disease                              | 2,633            | 1,337  | 1,296  | 5.8   | 5.9   | 5.6   | 5.8                  | 5.9   | 5.6   | 3.0   | 3.9   | 2.3   | 3.0                         | 3.9   | 2.3   |     |     |       |       |  |  |
| Alzheimer's disease                              | 10,402           | 3,157  | 7,245  | 22.8  | 14.0  | 31.4  | 22.8                 | 14.0  | 31.4  | 11.2  | 9.3   | 12.2  | 11.2                        | 9.3   | 12.2  |     |     |       |       |  |  |
| Diseases of the circulatory system               | 122,793          | 55,741 | 67,052 | 269.3 | 247.6 | 290.5 | 269.3                | 247.6 | 290.5 | 151.3 | 183.7 | 122.4 | 151.3                       | 183.7 | 122.4 |     |     |       |       |  |  |
| Diseases of heart                                | 80,175           | 37,239 | 42,936 | 175.8 | 165.4 | 186.0 | 175.8                | 165.4 | 186.0 | 100.0 | 124.1 | 78.6  | 100.0                       | 124.1 | 78.6  |     |     |       |       |  |  |
| Rheumatic heart diseases                         | 1,388            | 413    | 955    | 3.0   | 1.8   | 4.1   | 3.0                  | 1.8   | 4.1   | 1.8   | 1.4   | 2.1   | 1.8                         | 1.4   | 2.1   |     |     |       |       |  |  |
| Hypertensive heart disease                       | 3,194            | 954    | 2,240  | 7.0   | 4.2   | 9.7   | 7.0                  | 4.2   | 9.7   | 3.6   | 3.0   | 3.8   | 3.6                         | 3.0   | 3.8   |     |     |       |       |  |  |
| Ischemic heart disease                           | 35,928           | 20,391 | 15,537 | 78.8  | 90.6  | 67.3  | 78.8                 | 90.6  | 67.3  | 47.4  | 69.3  | 29.5  | 47.4                        | 69.3  | 29.5  |     |     |       |       |  |  |
| Heart failure                                    | 20,241           | 6,960  | 13,281 | 44.4  | 30.9  | 57.5  | 44.4                 | 30.9  | 57.5  | 22.8  | 22.1  | 22.5  | 22.8                        | 22.1  | 22.5  |     |     |       |       |  |  |
| Hypertensive diseases                            | 4,150            | 1,475  | 2,675  | 9.1   | 6.6   | 11.6  | 9.1                  | 6.6   | 11.6  | 4.8   | 4.7   | 4.6   | 4.8                         | 4.7   | 4.6   |     |     |       |       |  |  |
| Cerebrovascular diseases                         | 31,833           | 13,452 | 18,381 | 69.8  | 59.8  | 79.6  | 69.8                 | 59.8  | 79.6  | 38.2  | 43.1  | 33.8  | 38.2                        | 43.1  | 33.8  |     |     |       |       |  |  |
| Diseases of arteries, arterioles and capillaries | 5,959            | 3,304  | 2,655  | 13.1  | 14.7  | 11.5  | 13.1                 | 14.7  | 11.5  | 7.4   | 10.9  | 4.7   | 7.4                         | 10.9  | 4.7   |     |     |       |       |  |  |
| Atherosclerosis                                  | 2,609            | 963    | 1,646  | 5.7   | 4.3   | 7.1   | 5.7                  | 4.3   | 7.1   | 2.8   | 3.0   | 2.7   | 2.8                         | 3.0   | 2.7   |     |     |       |       |  |  |
| Aortic aneurysm and dissection                   | 1,952            | 1,605  | 347    | 4.3   | 7.1   | 1.5   | 4.3                  | 7.1   | 1.5   | 2.8   | 5.5   | 0.8   | 2.8                         | 5.5   | 0.8   |     |     |       |       |  |  |
| Diseases of the respiratory system               | 44,200           | 25,461 | 18,739 | 96.9  | 113.1 | 81.2  | 96.9                 | 113.1 | 81.2  | 52.8  | 80.3  | 34.1  | 52.8                        | 80.3  | 34.1  |     |     |       |       |  |  |
| Pneumonia and influenza                          | 9,272            | 4,877  | 4,395  | 20.3  | 21.7  | 19.0  | 20.3                 | 21.7  | 19.0  | 10.9  | 15.5  | 7.9   | 10.9                        | 15.5  | 7.9   |     |     |       |       |  |  |
| Other acute lower respiratory infections         | 1,152            | 458    | 694    | 2.5   | 2.0   | 3.0   | 2.5                  | 2.0   | 3.0   | 1.3   | 1.4   | 1.2   | 1.3                         | 1.4   | 1.2   |     |     |       |       |  |  |
| Chronic lower respiratory diseases               | 14,875           | 11,146 | 3,729  | 32.6  | 49.5  | 16.2  | 32.6                 | 49.5  | 16.2  | 18.1  | 34.8  | 7.1   | 18.1                        | 34.8  | 7.1   |     |     |       |       |  |  |
| Chronic and unspecified bronchitis               | 882              | 559    | 323    | 1.9   | 2.5   | 1.4   | 1.9                  | 2.5   | 1.4   | 1.0   | 1.8   | 0.5   | 1.0                         | 1.8   | 0.5   |     |     |       |       |  |  |
| Emphysema  | 521              | 438    | 83     | 1.1   | 1.9   | 0.4   | 1.1                  | 1.9   | 0.4   | 0.7   | 1.4   | 0.2   | 0.7                         | 1.4   | 0.2   |     |     |       |       |  |  |
| Asthma   | 789              | 177    | 612    | 1.7   | 0.8   | 2.7   | 1.7                  | 0.8   | 2.7   | 1.0   | 0.6   | 1.3   | 1.0                         | 0.6   | 1.3   |     |     |       |       |  |  |
| Pneumonitis due to solids and liquids            | 2,019            | 1,003  | 1,016  | 4.4   | 4.5   | 4.4   | 4.4                  | 4.5   | 4.4   | 2.3   | 3.1   | 1.7   | 2.3                         | 3.1   | 1.7   |     |     |       |       |  |  |
| Respiratory failure, not elsewhere classified    | 3,476            | 1,610  | 1,866  | 7.6   | 7.2   | 8.1   | 7.6                  | 7.2   | 8.1   | 4.2   | 5.1   | 3.4   | 4.2                         | 5.1   | 3.4   |     |     |       |       |  |  |
| Diseases of the digestive system                 | 19,476           | 10,307 | 9,169  | 42.7  | 45.8  | 39.7  | 42.7                 | 45.8  | 39.7  | 27.2  | 36.4  | 19.1  | 27.2                        | 36.4  | 19.1  |     |     |       |       |  |  |
| Peptic ulcer                                     | 466              | 262    | 204    | 1.0   | 1.2   | 0.9   | 1.0                  | 1.2   | 0.9   | 0.6   | 0.9   | 0.4   | 0.6                         | 0.9   | 0.4   |     |     |       |       |  |  |
| Appendicitis                                     | 66               | 37     | 29     | 0.1   | 0.2   | 0.1   | 0.1                  | 0.2   | 0.1   | 0.1   | 0.1   | 0.1   | 0.1                         | 0.1   | 0.1   |     |     |       |       |  |  |
| Hernia and intestinal obstruction                | 2,269            | 918    | 1,351  | 5.0   | 4.1   | 5.9   | 5.0                  | 4.1   | 5.9   | 2.6   | 2.8   | 2.4   | 2.6                         | 2.8   | 2.4   |     |     |       |       |  |  |
| Vascular disorders of intestine                  | 3,026            | 1,279  | 1,747  | 6.6   | 5.7   | 7.6   | 6.6                  | 5.7   | 7.6   | 3.6   | 4.1   | 3.1   | 3.6                         | 4.1   | 3.1   |     |     |       |       |  |  |
| Chronic liver disease and cirrhosis              | 4,662            | 3,352  | 1,310  | 10.2  | 14.9  | 5.7   | 10.2                 | 14.9  | 5.7   | 8.4   | 13.3  | 3.9   | 8.4                         | 13.3  | 3.9   |     |     |       |       |  |  |
| Alcoholic liver disease                          | 1,271            | 1,050  | 221    | 2.8   | 4.7   | 1.0   | 2.8                  | 4.7   | 1.0   | 2.5   | 4.3   | 0.9   | 2.5                         | 4.3   | 0.9   |     |     |       |       |  |  |
| Cholelithiasis and other gallbladder diseases    | 1,375            | 569    | 806    | 3.0   | 2.5   | 3.5   | 3.0                  | 2.5   | 3.5   | 1.6   | 1.8   | 1.4   | 1.6                         | 1.8   | 1.4   |     |     |       |       |  |  |
| Acute pancreatitis                               | 1,246            | 627    | 619    | 2.7   | 2.8   | 2.7   | 2.7                  | 2.8   | 2.7   | 1.7   | 2.1   | 1.3   | 1.7                         | 2.1   | 1.3   |     |     |       |       |  |  |

**Table 6. Number of deaths, crude mortality rate and age-adjusted mortality rate from selected causes of death, by sex. Spain, 2008 (continued)**

| Cause of death (based on ICD, 10th revision)  | Number of deaths |        |       |            |      |       | Crude mortality rate |      |       |            |      |       | Age-adjusted mortality rate |      |       |       |  |  |
|---|------------------|--------|-------|------------|------|-------|----------------------|------|-------|------------|------|-------|-----------------------------|------|-------|-------|--|--|
|   | Both sexes       |        |       | Men        |      |       | Women                |      |       | Both sexes |      |       | Men                         |      |       | Women |  |  |
|   | Both sexes       | Men    | Women | Both sexes | Men  | Women | Both sexes           | Men  | Women | Both sexes | Men  | Women | Both sexes                  | Men  | Women |       |  |  |
| Nephritis, nephrotic syndrome and nephrosis N00-N07, N17-N19, N25-N27   | 6,786            | 3,333  | 3,453 | 14.9       | 14.8 | 15.0  | 7.9                  | 7.9  | 7.9   | 10.4       | 10.4 | 6.2   | 6.2                         | 6.2  |       |       |  |  |
| Renal failure N17-N19   | 6,638            | 3,246  | 3,392 | 14.6       | 14.4 | 14.7  | 7.7                  | 7.7  | 7.7   | 10.1       | 10.1 | 6.0   | 6.0                         | 6.0  |       |       |  |  |
| Kidney infections N10-N12, N13.6, N15.1   | 160              | 67     | 93    | 0.4        | 0.3  | 0.4   | 0.2                  | 0.2  | 0.2   | 0.2        | 0.2  | 0.2   | 0.2                         | 0.2  |       |       |  |  |
| Hyperplasia of prostate N40   | 115              | 115    | 0     | 0.3        | 0.5  | 0.0   | 0.1                  | 0.1  | 0.0   | 0.4        | 0.4  | 0.0   | 0.0                         | 0.0  |       |       |  |  |
| Inflammatory diseases of female pelvic organs N70-N76   | 23               | 0      | 23    | 0.1        | 0.0  | 0.1   | 0.0                  | 0.0  | 0.1   | 0.0        | 0.0  | 0.1   | 0.1                         | 0.1  |       |       |  |  |
| Certain conditions originating in the perinatal period P00-P96  | 944              | 547    | 397   | 2.1        | 2.4  | 1.7   | 3.0                  | 3.0  | 1.7   | 3.4        | 3.4  | 2.6   | 2.6                         | 2.6  |       |       |  |  |
| Congenital malformations, deformations and chromosomal abnormalities Q00-Q99  | 924              | 467    | 457   | 2.0        | 2.1  | 2.0   | 2.5                  | 2.5  | 2.0   | 2.6        | 2.6  | 2.5   | 2.5                         | 2.5  |       |       |  |  |
| Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified R00-R99  | 11,503           | 4,988  | 6,505 | 25.2       | 22.2 | 28.2  | 15.1                 | 15.1 | 28.2  | 17.6       | 17.6 | 12.2  | 12.2                        | 12.2 |       |       |  |  |
| External causes of death V01-Y98  | 15,289           | 10,489 | 4,800 | 33.5       | 46.6 | 20.8  | 26.8                 | 26.8 | 20.8  | 40.7       | 40.7 | 13.5  | 13.5                        | 13.5 |       |       |  |  |
| Unintentional injuries V01-X59, Y85-Y86   | 10,924           | 7,296  | 3,628 | 24.0       | 32.4 | 15.7  | 18.8                 | 18.8 | 15.7  | 28.4       | 28.4 | 9.6   | 9.6                         | 9.6  |       |       |  |  |
| Motor vehicle accidents V02-Y04+V09.0+V09.2+V12-V14+V19.0-V19.2+V19.4-V19.6+V20-V79+V80.3-V80.5+V81.0-V81.1+V82.0-V82.1+V83-V86+V87.0-V87.8+V88.8-V88.9+V89.0-V89.2 | 3,117            | 2,448  | 669   | 6.8        | 10.9 | 2.9   | 6.3                  | 6.3  | 2.9   | 10.1       | 10.1 | 2.6   | 2.6                         | 2.6  |       |       |  |  |
| Falls W00-W19   | 1,845            | 1,052  | 793   | 4.0        | 4.7  | 3.4   | 2.7                  | 2.7  | 3.4   | 3.9        | 3.9  | 1.6   | 1.6                         | 1.6  |       |       |  |  |
| Accidental drowning and submersion W65-W74  | 478              | 395    | 83    | 1.0        | 1.8  | 0.4   | 1.0                  | 1.0  | 0.4   | 1.6        | 1.6  | 0.3   | 0.3                         | 0.3  |       |       |  |  |
| Accidental poisoning by exposure to noxious substances X40-X49  | 880              | 699    | 181   | 1.9        | 3.1  | 0.8   | 1.7                  | 1.7  | 0.8   | 2.7        | 2.7  | 0.6   | 0.6                         | 0.6  |       |       |  |  |
| Suicide X60-X84+Y87.0   | 3,457            | 2,676  | 781   | 7.6        | 11.9 | 3.4   | 6.5                  | 6.5  | 3.4   | 10.4       | 10.4 | 2.8   | 2.8                         | 2.8  |       |       |  |  |
| Assault X85-Y09   | 378              | 260    | 118   | 0.8        | 1.2  | 0.5   | 0.8                  | 0.8  | 0.5   | 1.1        | 1.1  | 0.5   | 0.5                         | 0.5  |       |       |  |  |
| Complications of medical and surgical care Y40-Y84  | 404              | 169    | 235   | 0.9        | 0.8  | 1.0   | 0.6                  | 0.6  | 1.0   | 0.6        | 0.6  | 0.5   | 0.5                         | 0.5  |       |       |  |  |



**Table 7. Number of deaths, crude mortality rate and age-adjusted mortality rate for tobacco-related deaths, by sex. Spain, 2000-2008**

| Year | Deaths     |        |        | Crude mortality rate |       |       | Age-adjusted mortality rate |       |       |
|------|------------|--------|--------|----------------------|-------|-------|-----------------------------|-------|-------|
|      | Both sexes | Men    | Women  | Both sexes           | Men   | Women | Both sexes                  | Men   | Women |
| 2000 | 115,684    | 70,418 | 45,266 | 287.3                | 357.1 | 220.3 | 193.3                       | 298.6 | 110.9 |
| 2001 | 114,540    | 69,818 | 44,722 | 281.3                | 349.8 | 215.4 | 186.6                       | 288.8 | 106.7 |
| 2002 | 116,010    | 70,675 | 45,335 | 280.8                | 348.7 | 215.4 | 184.2                       | 284.9 | 105.3 |
| 2003 | 119,201    | 72,457 | 46,744 | 283.8                | 351.3 | 218.7 | 183.6                       | 283.9 | 105.3 |
| 2004 | 113,384    | 69,271 | 44,113 | 265.6                | 330.1 | 203.2 | 170.8                       | 264.3 | 97.0  |
| 2005 | 116,352    | 71,346 | 45,006 | 268.1                | 333.9 | 204.3 | 169.7                       | 263.6 | 95.9  |
| 2006 | 109,307    | 67,438 | 41,869 | 248.0                | 310.4 | 187.4 | 156.5                       | 243.7 | 87.3  |
| 2007 | 111,426    | 68,954 | 42,472 | 248.3                | 311.2 | 187.0 | 154.7                       | 241.2 | 86.2  |
| 2008 | 108,252    | 66,826 | 41,426 | 237.4                | 296.8 | 179.5 | 147.0                       | 228.6 | 82.0  |

Rates are expressed per 100,000 population of both sexes, per 100,000 men or per 100,000 women

**Table 8. Number of deaths, crude mortality rate and age-adjusted mortality rate for tobacco-attributable deaths, by sex. Spain, 2000-2008**

| Year | Deaths     |        |       | Crude mortality rate |      |       | Age-adjusted mortality rate |      |       |
|------|------------|--------|-------|----------------------|------|-------|-----------------------------|------|-------|
|      | Both sexes | Men    | Women | Both sexes           | Men  | Women | Both sexes                  | Men  | Women |
| 2000 | 17,363     | 15,477 | 1,886 | 43.1                 | 78.5 | 9.2   | 34.2                        | 68.0 | 6.7   |
| 2001 | 18,214     | 16,254 | 1,960 | 44.7                 | 81.4 | 9.4   | 35.0                        | 69.6 | 6.9   |
| 2002 | 18,114     | 15,995 | 2,119 | 43.8                 | 78.9 | 10.1  | 34.2                        | 67.4 | 7.3   |
| 2003 | 18,801     | 16,537 | 2,264 | 44.8                 | 80.2 | 10.6  | 34.7                        | 67.9 | 7.6   |
| 2004 | 19,092     | 16,651 | 2,441 | 44.7                 | 79.3 | 11.2  | 34.8                        | 67.1 | 8.3   |
| 2005 | 19,118     | 16,647 | 2,471 | 44.1                 | 77.9 | 11.2  | 33.9                        | 65.4 | 8.1   |
| 2006 | 19,532     | 16,894 | 2,638 | 44.3                 | 77.8 | 11.8  | 34.1                        | 65.1 | 8.7   |
| 2007 | 19,992     | 17,194 | 2,798 | 44.6                 | 77.6 | 12.3  | 34.0                        | 64.6 | 9.0   |
| 2008 | 20,213     | 17,163 | 3,050 | 44.3                 | 76.2 | 13.2  | 33.8                        | 63.1 | 9.6   |

Rates are expressed per 100,000 population of both sexes, per 100,000 men or per 100,000 women

**Table 9. Number of deaths, crude mortality rate and age-adjusted mortality rate for alcohol-related deaths, by sex. Spain, 2000-2008**

| Year | Deaths     |        |       | Crude mortality rate |       |       | Age-adjusted mortality rate |      |       |
|------|------------|--------|-------|----------------------|-------|-------|-----------------------------|------|-------|
|      | Both sexes | Men    | Women | Both sexes           | Men   | Women | Both sexes                  | Men  | Women |
| 2000 | 26,575     | 19,875 | 6,700 | 66.0                 | 100.8 | 32.6  | 56.4                        | 91.7 | 24.4  |
| 2001 | 25,946     | 19,404 | 6,542 | 63.7                 | 97.2  | 31.5  | 53.9                        | 87.9 | 23.0  |
| 2002 | 25,674     | 19,070 | 6,604 | 62.1                 | 94.1  | 31.4  | 52.4                        | 84.7 | 22.8  |
| 2003 | 26,540     | 19,589 | 6,951 | 63.2                 | 95.0  | 32.5  | 52.9                        | 85.3 | 23.4  |
| 2004 | 26,664     | 19,326 | 7,338 | 62.5                 | 92.1  | 33.8  | 51.4                        | 82.0 | 23.5  |
| 2005 | 26,396     | 19,213 | 7,183 | 60.8                 | 89.9  | 32.6  | 49.5                        | 79.8 | 21.7  |
| 2006 | 25,405     | 18,511 | 6,894 | 57.6                 | 85.2  | 30.9  | 46.6                        | 75.1 | 20.5  |
| 2007 | 25,173     | 18,199 | 6,974 | 56.1                 | 82.1  | 30.7  | 45.1                        | 72.1 | 20.3  |
| 2008 | 24,339     | 17,612 | 6,727 | 53.4                 | 78.2  | 29.1  | 42.8                        | 68.5 | 19.2  |

Rates are expressed per 100,000 population of both sexes, per 100,000 men or per 100,000 women

**Table 10. Number of deaths, crude mortality rate and age-adjusted mortality rate for alcohol-attributable deaths, by sex. Spain, 2000-2008**

| Year | Deaths     |       |       | Crude mortality rate |     |       | Age-adjusted mortality rate |     |       |
|------|------------|-------|-------|----------------------|-----|-------|-----------------------------|-----|-------|
|      | Both sexes | Men   | Women | Both sexes           | Men | Women | Both sexes                  | Men | Women |
| 2000 | 1,428      | 1,195 | 233   | 3.5                  | 6.1 | 1.1   | 3.3                         | 5.8 | 1.1   |
| 2001 | 1,574      | 1,325 | 249   | 3.9                  | 6.6 | 1.2   | 3.6                         | 6.3 | 1.1   |
| 2002 | 1,498      | 1,276 | 222   | 3.6                  | 6.3 | 1.1   | 3.4                         | 6.0 | 1.0   |
| 2003 | 1,626      | 1,381 | 245   | 3.9                  | 6.7 | 1.1   | 3.6                         | 6.4 | 1.0   |
| 2004 | 1,593      | 1,321 | 272   | 3.7                  | 6.3 | 1.3   | 3.5                         | 6.0 | 1.2   |
| 2005 | 1,620      | 1,382 | 238   | 3.7                  | 6.5 | 1.1   | 3.4                         | 6.1 | 1.0   |
| 2006 | 1,639      | 1,406 | 233   | 3.7                  | 6.5 | 1.0   | 3.4                         | 6.1 | 1.0   |
| 2007 | 1,675      | 1,411 | 264   | 3.7                  | 6.4 | 1.2   | 3.4                         | 6.0 | 1.0   |
| 2008 | 1,626      | 1,357 | 269   | 3.6                  | 6.0 | 1.2   | 3.2                         | 5.6 | 1.0   |

Rates are expressed per 100,000 population of both sexes, per 100,000 men or per 100,000 women

**Table 11. Number of deaths, crude mortality rate and age-adjusted mortality rate for abdominal hernia, by sex. Spain, 2000-2008**

| Year | Deaths     |     |       | Crude mortality rate |     |       | Age-adjusted mortality rate |     |       |
|------|------------|-----|-------|----------------------|-----|-------|-----------------------------|-----|-------|
|      | Both sexes | Men | Women | Both sexes           | Men | Women | Both sexes                  | Men | Women |
| 2000 | 1,627      | 688 | 939   | 4.0                  | 3.5 | 4.6   | 2.5                         | 2.9 | 2.2   |
| 2001 | 1,722      | 711 | 1,011 | 4.2                  | 3.6 | 4.9   | 2.5                         | 2.9 | 2.2   |
| 2002 | 1,828      | 749 | 1,079 | 4.4                  | 3.7 | 5.1   | 2.6                         | 2.9 | 2.4   |
| 2003 | 2,004      | 834 | 1,170 | 4.8                  | 4.0 | 5.5   | 2.8                         | 3.2 | 2.5   |
| 2004 | 2,023      | 795 | 1,228 | 4.7                  | 3.8 | 5.7   | 2.6                         | 2.8 | 2.5   |
| 2005 | 2,069      | 844 | 1,225 | 4.8                  | 3.9 | 5.6   | 2.6                         | 2.9 | 2.4   |
| 2006 | 2,161      | 903 | 1,258 | 4.9                  | 4.2 | 5.6   | 2.7                         | 3.0 | 2.4   |
| 2007 | 2,118      | 876 | 1,242 | 4.7                  | 4.0 | 5.5   | 2.5                         | 2.8 | 2.3   |
| 2008 | 2,269      | 918 | 1,351 | 5.0                  | 4.1 | 5.9   | 2.6                         | 2.8 | 2.4   |

Rates are expressed per 100,000 population of both sexes, per 100,000 men or per 100,000 women

**Table 12. Number of deaths, crude mortality rate and age-adjusted mortality rate for appendicitis, by sex. Spain, 2000-2008**

| Year | Deaths     |     |       | Crude mortality rate |     |       | Age-adjusted mortality rate |     |       |
|------|------------|-----|-------|----------------------|-----|-------|-----------------------------|-----|-------|
|      | Both sexes | Men | Women | Both sexes           | Men | Women | Both sexes                  | Men | Women |
| 2000 | 57         | 26  | 31    | 0.1                  | 0.1 | 0.2   | 0.1                         | 0.1 | 0.1   |
| 2001 | 77         | 45  | 32    | 0.2                  | 0.2 | 0.2   | 0.1                         | 0.2 | 0.1   |
| 2002 | 81         | 48  | 33    | 0.2                  | 0.2 | 0.2   | 0.1                         | 0.2 | 0.1   |
| 2003 | 74         | 48  | 26    | 0.2                  | 0.2 | 0.1   | 0.1                         | 0.2 | 0.1   |
| 2004 | 72         | 41  | 31    | 0.2                  | 0.2 | 0.1   | 0.1                         | 0.2 | 0.1   |
| 2005 | 77         | 43  | 34    | 0.2                  | 0.2 | 0.2   | 0.1                         | 0.2 | 0.1   |
| 2006 | 68         | 36  | 32    | 0.2                  | 0.2 | 0.1   | 0.1                         | 0.1 | 0.1   |
| 2007 | 67         | 28  | 39    | 0.1                  | 0.1 | 0.2   | 0.1                         | 0.1 | 0.1   |
| 2008 | 66         | 37  | 29    | 0.1                  | 0.2 | 0.1   | 0.1                         | 0.1 | 0.1   |

Rates are expressed per 100,000 population of both sexes, per 100,000 men or per 100,000 women

**Table 13. Number of deaths, crude mortality rate and age-adjusted mortality rate for adverse effects of medicaments, by sex. Spain, 2000-2008**

| Year | Deaths     |     |       | Crude mortality rate |     |       | Age-adjusted mortality rate |     |       |
|------|------------|-----|-------|----------------------|-----|-------|-----------------------------|-----|-------|
|      | Both sexes | Men | Women | Both sexes           | Men | Women | Both sexes                  | Men | Women |
| 2000 | 179        | 82  | 97    | 0.4                  | 0.4 | 0.5   | 0.3                         | 0.3 | 0.3   |
| 2001 | 180        | 72  | 108   | 0.4                  | 0.4 | 0.5   | 0.3                         | 0.3 | 0.3   |
| 2002 | 203        | 78  | 125   | 0.5                  | 0.4 | 0.6   | 0.3                         | 0.3 | 0.3   |
| 2003 | 264        | 115 | 149   | 0.6                  | 0.6 | 0.7   | 0.4                         | 0.4 | 0.3   |
| 2004 | 263        | 108 | 155   | 0.6                  | 0.5 | 0.7   | 0.4                         | 0.4 | 0.4   |
| 2005 | 224        | 90  | 134   | 0.5                  | 0.4 | 0.6   | 0.3                         | 0.3 | 0.3   |
| 2006 | 166        | 67  | 99    | 0.4                  | 0.3 | 0.4   | 0.2                         | 0.2 | 0.2   |
| 2007 | 147        | 54  | 93    | 0.3                  | 0.2 | 0.4   | 0.2                         | 0.2 | 0.2   |
| 2008 | 119        | 44  | 75    | 0.3                  | 0.2 | 0.3   | 0.1                         | 0.1 | 0.1   |

Rates are expressed per 100,000 population of both sexes, per 100,000 men or per 100,000 women

**Table 14. Number of deaths for the leading causes of death, crude mortality rate and age-adjusted mortality rate, by autonomous community.<sup>1</sup> Spain, 2008**

|                     | All causes                         |            |                   | Cancer (C00-C97)                             |            |                   | Heart disease (I00-I09,I11, I13, I20-I51) |            |                   |
|---------------------|------------------------------------|------------|-------------------|--|------------|-------------------|---|------------|-------------------|
|                     | Number                             | Crude rate | Age-adjusted rate | Number                                       | Crude rate | Age-adjusted rate | Number                                    | Crude rate | Age-adjusted rate |
| Spain               | 386,324                            | 847.3      | 519.7             | 100,675                                      | 220.8      | 154.6             | 80,175                                    | 175.8      | 100.0             |
| Andalusia           | 65,583                             | 809.1      | 584.1             | 15,808                                       | 195.0      | 155.9             | 14,571                                    | 179.8      | 123.4             |
| Aragon              | 13,398                             | 1,025.4    | 490.7             | 3,341  | 255.7      | 145.9             | 2,611                                     | 199.8      | 87.6              |
| Asturias            | 12,741                             | 1,203.0    | 553.9             | 3,552  | 335.4      | 181.9             | 2,971                                     | 280.5      | 116.7             |
| Balearic Islands    | 7,488                              | 707.3      | 513.4             | 1,980  | 187.0      | 153.5             | 1,675                                     | 158.2      | 105.3             |
| Canary Islands      | 13,462                             | 653.0      | 563.6             | 3,697  | 179.3      | 162.5             | 2,890                                     | 140.2      | 117.5             |
| Cantabria           | 5,522                              | 962.4      | 505.3             | 1,487  | 259.2      | 160.8             | 963                                       | 167.8      | 80.9              |
| Castilla-La Mancha  | 18,167                             | 907.6      | 495.4             | 4,425  | 221.1      | 142.1             | 3,615                                     | 180.6      | 91.3              |
| Castilla and Leon   | 27,392                             | 1,092.9    | 476.8             | 7,399  | 295.2      | 157.3             | 5,774                                     | 230.4      | 87.7              |
| Catalonia           | 60,110                             | 826.8      | 498.6             | 15,976                                       | 219.7      | 152.2             | 11,301                                    | 155.4      | 86.3              |
| Valencian Community | 40,059                             | 809.2      | 539.2             | 10,288                                       | 207.8      | 154.5             | 8,563                                     | 173.0      | 109.5             |
| Extremadura         | 10,441                             | 967.0      | 530.4             | 2,665  | 246.8      | 154.8             | 2,274                                     | 210.6      | 105.0             |
| Galicia             | 29,629                             | 1,082.1    | 517.9             | 7,660  | 279.8      | 161.0             | 6,628                                     | 242.1      | 102.1             |
| Madrid              | 41,270                             | 660.8      | 453.7             | 11,581                                       | 185.4      | 142.0             | 8,101                                     | 129.7      | 82.8              |
| Murcia              | 10,399                             | 726.7      | 557.3             | 2,564  | 179.2      | 153.4             | 2,127                                     | 148.6      | 108.4             |
| Navarre             | 5,292                              | 867.0      | 466.1             | 1,405  | 230.2      | 148.6             | 1,007                                     | 165.0      | 82.2              |
| Basque Country      | 19,433                             | 908.7      | 494.2             | 5,653  | 264.3      | 164.6             | 3,602                                     | 168.4      | 84.7              |
| La Rioja            | 2,860                              | 911.5      | 485.9             | 737  | 234.9      | 151.3             | 603                                       | 192.2      | 91.7              |
| Ceuta               | 497                                | 686.9      | 593.8             | 124  | 171.4      | 150.1             | 91  | 125.8      | 109.2             |
| Melilla             | 455                                | 656.1      | 592.8             | 97   | 139.9      | 134.5             | 91  | 131.2      | 117.5             |
|                     | Cerebrovascular diseases (I60-I69) |            |                   | Chronic lower respiratory diseases (J40-J47) |            |                   | Unintentional accidents (V01-X59,Y85-Y86) |            |                   |
|                     | Number                             | Crude rate | Age-adjusted rate | Number                                       | Crude rate | Age-adjusted rate | Number                                    | Crude rate | Age-adjusted rate |
| Spain               | 31,833                             | 69.8       | 38.2              | 14,875                                       | 32.6       | 18.1              | 10,924                                    | 24.0       | 18.8              |
| Andalusia           | 6,422                              | 79.2       | 52.6              | 2,509  | 31.0       | 20.9              | 1,596                                     | 19.7       | 17.1              |
| Aragon              | 1,380                              | 105.6      | 43.7              | 442  | 33.8       | 14.2              | 354                                       | 27.1       | 19.1              |
| Asturias            | 978                                | 92.3       | 36.5              | 565  | 53.3       | 21.6              | 319                                       | 30.1       | 18.9              |
| Balearic Islands    | 530                                | 50.1       | 32.7              | 225  | 21.3       | 14.9              | 230                                       | 21.7       | 19.1              |
| Canary Islands      | 713                                | 34.6       | 28.6              | 422  | 20.5       | 16.7              | 538                                       | 26.1       | 24.3              |
| Cantabria           | 434                                | 75.6       | 36.2              | 197  | 34.3       | 14.9              | 151                                       | 26.3       | 17.3              |
| Castilla-La Mancha  | 1,551                              | 77.5       | 36.9              | 857  | 42.8       | 20.8              | 481                                       | 24.0       | 18.8              |
| Castilla and Leon   | 2,056                              | 82.0       | 30.2              | 967  | 38.6       | 14.5              | 736                                       | 29.4       | 20.1              |
| Catalonia           | 4,587                              | 63.1       | 34.2              | 2,600  | 35.8       | 19.6              | 2,007                                     | 27.6       | 19.7              |
| Valencian Community | 3,442                              | 69.5       | 41.9              | 1,566  | 31.6       | 19.5              | 993                                       | 20.1       | 16.4              |
| Extremadura         | 963                                | 89.2       | 43.1              | 334  | 30.9       | 14.9              | 183                                       | 16.9       | 14.1              |
| Galicia             | 2,736                              | 99.9       | 40.2              | 1,247  | 45.5       | 18.2              | 860                                       | 31.4       | 22.4              |
| Madrid              | 2,591                              | 41.5       | 26.1              | 1,413  | 22.6       | 14.4              | 1,020                                     | 16.3       | 13.0              |
| Murcia              | 1,042                              | 72.8       | 51.7              | 407  | 28.4       | 20.1              | 296                                       | 20.7       | 17.9              |
| Navarre             | 442                                | 72.4       | 33.1              | 225  | 36.9       | 17.3              | 170                                       | 27.9       | 20.4              |
| Basque Country      | 1,498                              | 70.1       | 33.7              | 740  | 34.6       | 16.5              | 491                                       | 23.0       | 16.5              |
| La Rioja            | 256                                | 81.6       | 38.3              | 92   | 29.3       | 14.7              | 90  | 28.7       | 21.2              |
| Ceuta               | 42                                 | 58.0       | 48.3              | 16   | 22.1       | 18.5              | 8   | 11.1       | 11.0              |
| Melilla             | 39                                 | 56.2       | 49.0              | 16   | 23.1       | 18.9              | 10  | 14.4       | 13.1              |

<sup>1</sup> The classification of deaths by autonomous community is based on the autonomous community of residence of the decedent and excludes deaths in residents of other countries. At national level, however, these deaths are included, therefore the sum of deaths in all autonomous communities is not the same as the total number of deaths for all of Spain.

**Table 14. Number of deaths for the leading causes of death, crude mortality rate and age-adjusted mortality rate, by autonomous community.<sup>1</sup> Spain, 2008 (continued)**

|                     | Alzheimer's disease (G30)   |            |                   | Diabetes mellitus (E10-E14)                        |            |                   | Influenza and pneumonia (J10-J18)     |            |                   |
|---------------------|---|------------|-------------------|--|------------|-------------------|---------------------------------------|------------|-------------------|
|                     | Number  | Crude rate | Age-adjusted rate | Number   | Crude rate | Age-adjusted rate | Number                                | Crude rate | Age-adjusted rate |
| Spain               | 10,402  | 22.8       | 11.2              | 10,153   | 22.3       | 12.3              | 9,272                                 | 20.3       | 10.9              |
| Andalusia           | 1,739   | 21.5       | 13.0              | 1,661  | 20.5       | 13.7              | 1,426                                 | 17.6       | 11.6              |
| Aragon              | 374   | 28.6       | 10.3              | 390  | 29.8       | 12.8              | 356                                   | 27.2       | 11.4              |
| Asturias            | 327   | 30.9       | 10.4              | 338  | 31.9       | 13.4              | 232                                   | 21.9       | 8.4               |
| Balearic Islands    | 217   | 20.5       | 12.4              | 201  | 19.0       | 12.8              | 201                                   | 19.0       | 12.4              |
| Canary Islands      | 271   | 13.1       | 10.1              | 910  | 44.1       | 35.8              | 317                                   | 15.4       | 12.5              |
| Cantabria           | 135   | 23.5       | 9.6               | 150  | 26.1       | 11.7              | 196                                   | 34.2       | 15.0              |
| Castilla-La Mancha  | 438   | 21.9       | 9.6               | 589  | 29.4       | 14.4              | 470                                   | 23.5       | 10.6              |
| Castilla and Leon   | 687   | 27.4       | 8.5               | 725  | 28.9       | 10.4              | 598                                   | 23.9       | 8.4               |
| Catalonia           | 2,146   | 29.5       | 14.3              | 1,721  | 23.7       | 12.9              | 888                                   | 12.2       | 6.4               |
| Valencian Community | 1,241   | 25.1       | 13.9              | 1,100  | 22.2       | 13.3              | 975                                   | 19.7       | 11.9              |
| Extremadura         | 247   | 22.9       | 9.8               | 264  | 24.5       | 12.6              | 336                                   | 31.1       | 14.8              |
| Galicia             | 633   | 23.1       | 8.2               | 598  | 21.8       | 9.2               | 693                                   | 25.3       | 10.0              |
| Madrid              | 711   | 11.4       | 6.5               | 591  | 9.5        | 5.9               | 1,672                                 | 26.8       | 16.5              |
| Murcia              | 303   | 21.2       | 13.7              | 234  | 16.4       | 11.7              | 249                                   | 17.4       | 12.7              |
| Navarre             | 194   | 31.8       | 13.2              | 126  | 20.6       | 10.4              | 159                                   | 26.0       | 11.3              |
| Basque Country      | 600   | 28.1       | 12.2              | 434  | 20.3       | 9.6               | 366                                   | 17.1       | 8.2               |
| La Rioja            | 113   | 36.0       | 14.8              | 68   | 21.7       | 10.2              | 81                                    | 25.8       | 11.0              |
| Ceuta               | 14  | 19.3       | 15.3              | 20   | 27.6       | 24.0              | 11                                    | 15.2       | 12.0              |
| Melilla             | 10  | 14.4       | 12.6              | 11   | 15.9       | 14.0              | 10                                    | 14.4       | 11.2              |
|                     | Nephritis, nephrotic syndrome and nephrosis (N00-N07, N17-N19, N25-N27) |            |                   | Chronic liver disease and cirrhosis (K70, K73-K74) |            |                   | Hypertensive diseases (I10, I12, I15) |            |                   |
|                     | Number  | Crude rate | Age-adjusted rate | Number   | Crude rate | Age-adjusted rate | Number                                | Crude rate | Age-adjusted rate |
| Spain               | 6,786   | 14.9       | 7.9               | 4,662  | 10.2       | 8.4               | 4,150                                 | 9.1        | 4.8               |
| Andalusia           | 1,148   | 14.2       | 9.3               | 1,095  | 13.5       | 12.1              | 677                                   | 8.4        | 5.4               |
| Aragon              | 356   | 27.2       | 10.6              | 105  | 8.0        | 5.9               | 56                                    | 4.3        | 1.6               |
| Asturias            | 181   | 17.1       | 6.7               | 164  | 15.5       | 10.9              | 119                                   | 11.2       | 4.3               |
| Balearic Islands    | 173   | 16.3       | 10.3              | 99   | 9.4        | 8.8               | 84                                    | 7.9        | 5.3               |
| Canary Islands      | 165   | 8.0        | 6.5               | 215  | 10.4       | 10.1              | 98                                    | 4.8        | 3.8               |
| Cantabria           | 78  | 13.6       | 6.4               | 40   | 7.0        | 5.6               | 63                                    | 11.0       | 4.6               |
| Castilla-La Mancha  | 289   | 14.4       | 6.5               | 147  | 7.3        | 5.8               | 244                                   | 12.2       | 5.6               |
| Castilla and Leon   | 532   | 21.2       | 7.1               | 217  | 8.7        | 6.3               | 246                                   | 9.8        | 3.4               |
| Catalonia           | 1,125   | 15.5       | 8.1               | 722  | 9.9        | 7.8               | 900                                   | 12.4       | 6.3               |
| Valencian Community | 695   | 14.0       | 8.3               | 586  | 11.8       | 9.8               | 493                                   | 10.0       | 5.9               |
| Extremadura         | 193   | 17.9       | 8.6               | 80   | 7.4        | 6.0               | 58                                    | 5.4        | 2.3               |
| Galicia             | 427   | 15.6       | 5.9               | 315  | 11.5       | 8.5               | 254                                   | 9.3        | 3.7               |
| Madrid              | 725   | 11.6       | 7.1               | 379  | 6.1        | 5.3               | 412                                   | 6.6        | 4.0               |
| Murcia              | 222   | 15.5       | 10.8              | 146  | 10.2       | 10.1              | 120                                   | 8.4        | 5.8               |
| Navarre             | 88  | 14.4       | 6.3               | 35   | 5.7        | 4.7               | 41                                    | 6.7        | 2.8               |
| Basque Country      | 327   | 15.3       | 7.0               | 258  | 12.1       | 8.6               | 242                                   | 11.3       | 5.3               |
| La Rioja            | 32  | 10.2       | 4.5               | 23   | 7.3        | 6.0               | 26                                    | 8.3        | 3.5               |
| Ceuta               | 10  | 13.8       | 11.4              | 7  | 9.7        | 10.6              | 3                                     | 4.1        | 3.3               |
| Melilla             | 11  | 15.9       | 14.0              | 4  | 5.8        | 5.3               | 7                                     | 10.1       | 9.7               |

<sup>1</sup> The classification of deaths by autonomous community is based on the autonomous community of residence of the decedent and excludes deaths in residents of other countries. At national level, however, these deaths are included, therefore the sum of deaths in all autonomous communities is not the same as the total number of deaths for all of Spain.

**Table 14. Number of deaths for the leading causes of death, crude mortality rate and age-adjusted mortality rate, by autonomous community.<sup>1</sup> Spain, 2008 (continued)**

|                     | Septicaemia (A40-A41)                   |                   |                          | Suicide (X60-X84+Y87.0) |            |                   | Vascular disorders of intestine (K55) |            |                   |
|---------------------|---|-------------------|--------------------------|-------------------------|------------|-------------------|---------------------------------------|------------|-------------------|
|                     | Number                                  | Crude rate        | Age-adjusted rate        | Number                  | Crude rate | Age-adjusted rate | Number                                | Crude rate | Age-adjusted rate |
| Spain               | 4,136                                   | 9.1               | 5.3                      | 3,457                   | 7.6        | 6.5               | 3,026                                 | 6.6        | 3.6               |
| Andalusia           | 607                                     | 7.5               | 5.3                      | 823                     | 10.2       | 9.1               | 611                                   | 7.5        | 4.9               |
| Aragon              | 134                                     | 10.3              | 4.8                      | 100                     | 7.7        | 6.3               | 130                                   | 9.9        | 3.8               |
| Asturias            | 89                                      | 8.4               | 3.7                      | 113                     | 10.7       | 7.9               | 96                                    | 9.1        | 3.2               |
| Balearic Islands    | 52                                      | 4.9               | 3.3                      | 80                      | 7.6        | 6.8               | 30                                    | 2.8        | 1.9               |
| Canary Islands      | 195                                     | 9.5               | 7.9                      | 183                     | 8.9        | 8.3               | 101                                   | 4.9        | 3.9               |
| Cantabria           | 99                                      | 17.3              | 8.2                      | 24                      | 4.2        | 3.7               | 40                                    | 7.0        | 2.9               |
| Castilla-La Mancha  | 233                                     | 11.6              | 6.0                      | 155                     | 7.7        | 6.2               | 119                                   | 5.9        | 2.9               |
| Castilla and Leon   | 433                                     | 17.3              | 6.6                      | 218                     | 8.7        | 6.6               | 224                                   | 8.9        | 3.3               |
| Catalonia           | 572                                     | 7.9               | 4.5                      | 425                     | 5.8        | 5.1               | 470                                   | 6.5        | 3.4               |
| Valencian Community | 430                                     | 8.7               | 5.6                      | 371                     | 7.5        | 6.5               | 282                                   | 5.7        | 3.5               |
| Extremadura         | 133                                     | 12.3              | 6.8                      | 78                      | 7.2        | 5.8               | 67                                    | 6.2        | 2.8               |
| Galicia             | 343                                     | 12.5              | 5.8                      | 296                     | 10.8       | 8.1               | 247                                   | 9.0        | 3.6               |
| Madrid              | 372                                     | 6.0               | 4.0                      | 179                     | 2.9        | 2.5               | 278                                   | 4.5        | 2.9               |
| Murcia              | 115                                     | 8.0               | 6.0                      | 115                     | 8.0        | 7.4               | 87                                    | 6.1        | 4.3               |
| Navarre             | 41                                      | 6.7               | 3.2                      | 52                      | 8.5        | 7.4               | 61                                    | 10.0       | 4.4               |
| Basque Country      | 218                                     | 10.2              | 5.1                      | 171                     | 8.0        | 6.4               | 133                                   | 6.2        | 3.0               |
| La Rioja            | 21                                      | 6.7               | 3.1                      | 28                      | 8.9        | 7.9               | 32                                    | 10.2       | 4.3               |
| Ceuta               | 18                                      | 24.9              | 21.6                     | 2                       | 2.8        | 2.5               | 0                                     | 0.0        | 0.0               |
| Melilla             | 9                                       | 13.0              | 11.7                     | 7                       | 10.1       | 10.0              | 5                                     | 7.2        | 7.0               |
|                     | <b>Enfermage de Parkinson (G20-G21)</b> |                   |                          |                         |            |                   |                                       |            |                   |
|                     | <b>Number</b>                           | <b>Crude rate</b> | <b>Age-adjusted rate</b> |                         |            |                   |                                       |            |                   |
| Spain               | 2,633                                   | 5.8               | 3.0                      |                         |            |                   |                                       |            |                   |
| Andalusia           | 611                                     | 7.5               | 4.9                      |                         |            |                   |                                       |            |                   |
| Aragon              | 130                                     | 9.9               | 3.8                      |                         |            |                   |                                       |            |                   |
| Asturias            | 96                                      | 9.1               | 3.2                      |                         |            |                   |                                       |            |                   |
| Balearic Islands    | 30                                      | 2.8               | 1.9                      |                         |            |                   |                                       |            |                   |
| Canary Islands      | 101                                     | 4.9               | 3.9                      |                         |            |                   |                                       |            |                   |
| Cantabria           | 40                                      | 7.0               | 2.9                      |                         |            |                   |                                       |            |                   |
| Castilla-La Mancha  | 119                                     | 5.9               | 2.9                      |                         |            |                   |                                       |            |                   |
| Castilla and Leon   | 224                                     | 8.9               | 3.3                      |                         |            |                   |                                       |            |                   |
| Catalonia           | 470                                     | 6.5               | 3.4                      |                         |            |                   |                                       |            |                   |
| Valencian Community | 282                                     | 5.7               | 3.5                      |                         |            |                   |                                       |            |                   |
| Extremadura         | 67                                      | 6.2               | 2.8                      |                         |            |                   |                                       |            |                   |
| Galicia             | 247                                     | 9.0               | 3.6                      |                         |            |                   |                                       |            |                   |
| Madrid              | 278                                     | 4.5               | 2.9                      |                         |            |                   |                                       |            |                   |
| Murcia              | 87                                      | 6.1               | 4.3                      |                         |            |                   |                                       |            |                   |
| Navarre             | 61                                      | 10.0              | 4.4                      |                         |            |                   |                                       |            |                   |
| Basque Country      | 133                                     | 6.2               | 3.0                      |                         |            |                   |                                       |            |                   |
| La Rioja            | 32                                      | 10.2              | 4.3                      |                         |            |                   |                                       |            |                   |
| Ceuta               | 0                                       | 0.0               | 0.0                      |                         |            |                   |                                       |            |                   |
| Melilla             | 5                                       | 7.2               | 7.0                      |                         |            |                   |                                       |            |                   |

<sup>1</sup> The classification of deaths by autonomous community is based on the autonomous community of residence of the decedent and excludes deaths in residents of other countries. At national level, however, these deaths are included, therefore the sum of deaths in all autonomous communities is not the same as the total number of deaths for all of Spain.

**Table 15. Number of deaths from diseases related and attributable to tobacco and to alcohol, crude mortality rate and age-adjusted mortality rate, by autonomous community.1 Spain, 2008**

|                     | Tobacco-related deaths <sup>2</sup> |            |                   | Tobacco-attributable deaths (C33-C34)  |            |                   |
|---------------------|-------------------------------------|------------|-------------------|--|------------|-------------------|
|                     | Number                              | Crude rate | Age-adjusted rate | Number   | Crude rate | Age-adjusted rate |
| Spain               | 108,252                             | 237.4      | 147.0             | 20,213   | 44.3       | 33.8              |
| Andalusia           | 19,788                              | 244.1      | 175.7             | 3,268  | 40.3       | 36.7              |
| Aragon              | 3,742                               | 286.4      | 140.0             | 664  | 50.8       | 33.4              |
| Asturias            | 3,919                               | 370.0      | 173.4             | 712  | 67.2       | 41.5              |
| Balearic Islands    | 1,963                               | 185.4      | 137.7             | 438  | 41.4       | 36.5              |
| Canary Islands      | 3,820                               | 185.3      | 161.3             | 729  | 35.6       | 33.2              |
| Cantabria           | 1,417                               | 247.0      | 135.6             | 328  | 57.2       | 39.5              |
| Castilla-La Mancha  | 5,085                               | 254.0      | 140.6             | 910  | 45.5       | 32.5              |
| Castilla and Leon   | 6,812                               | 271.8      | 122.0             | 1,200  | 47.9       | 30.2              |
| Catalonia           | 16,006                              | 220.2      | 134.3             | 3,256  | 44.8       | 33.7              |
| Valencian Community | 12,199                              | 246.4      | 164.8             | 2,222  | 44.9       | 35.8              |
| Extremadura         | 3,127                               | 289.6      | 160.1             | 624  | 57.8       | 39.9              |
| Galicia             | 8,519                               | 311.1      | 148.0             | 1,341  | 49.0       | 32.3              |
| Madrid              | 10,579                              | 169.4      | 117.4             | 2,391  | 38.3       | 31.0              |
| Murcia              | 3,025                               | 211.4      | 162.8             | 503  | 35.2       | 32.0              |
| Navarre             | 1,406                               | 230.3      | 127.7             | 256  | 41.9       | 31.5              |
| Basque Country      | 5,111                               | 239.0      | 134.1             | 1,155  | 54.0       | 37.6              |
| La Rioja            | 770                                 | 245.4      | 132.3             | 123  | 39.2       | 27.2              |
| Ceuta               | 137                                 | 189.3      | 165.8             | 27   | 37.3       | 33.8              |
| Melilla             | 128                                 | 184.6      | 172.3             | 23   | 21.8       | 35.4              |
|                     | Alcohol-related deaths <sup>3</sup> |            |                   | Alcohol-attributable deaths (E24.4, F10, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K86.0, R78.0, X45, X65 y Y15) |            |                   |
|                     | Number                              | Crude rate | Age-adjusted rate | Number   | Crude rate | Age-adjusted rate |
| Spain               | 24,339                              | 53.4       | 42.8              | 1,626  | 3.6        | 3.2               |
| Andalusia           | 4,478                               | 55.2       | 48.4              | 379  | 4.7        | 4.5               |
| Aragon              | 693                                 | 53.0       | 38.2              | 21   | 1.6        | 1.3               |
| Asturias            | 780                                 | 73.6       | 48.7              | 92   | 8.7        | 6.7               |
| Balearic Islands    | 512                                 | 48.4       | 43.7              | 36   | 3.4        | 3.4               |
| Canary Islands      | 1,200                               | 58.2       | 55.0              | 104  | 5.0        | 5.0               |
| Cantabria           | 302                                 | 52.6       | 37.4              | 15   | 2.6        | 2.3               |
| Castilla-La Mancha  | 1,003                               | 50.1       | 39.1              | 55   | 2.7        | 2.5               |
| Castilla and Leon   | 1,500                               | 59.8       | 41.6              | 93   | 3.7        | 3.1               |
| Catalonia           | 3,900                               | 53.6       | 40.6              | 207  | 2.8        | 2.5               |
| Valencian Community | 2,500                               | 50.5       | 41.7              | 180  | 3.6        | 3.4               |
| Extremadura         | 479                                 | 44.4       | 35.1              | 38   | 3.5        | 3.1               |
| Galicia             | 1,840                               | 67.2       | 48.6              | 142  | 5.2        | 4.1               |
| Madrid              | 2,179                               | 34.9       | 28.8              | 79   | 1.3        | 1.2               |
| Murcia              | 694                                 | 48.5       | 44.8              | 56   | 3.9        | 4.0               |
| Navarre             | 331                                 | 54.2       | 41.5              | 26   | 4.3        | 3.5               |
| Basque Country      | 1,226                               | 57.3       | 41.5              | 74   | 3.5        | 2.8               |
| La Rioja            | 181                                 | 57.7       | 44.8              | 15   | 4.8        | 4.4               |
| Ceuta               | 27                                  | 37.3       | 35.5              | 2  | 2.8        | 3.3               |
| Melilla             | 26                                  | 37.5       | 36.2              | 0  | 0.0        | 0.0               |

<sup>1</sup> The classification of deaths by autonomous community is based on the autonomous community of residence of the decedent and excludes deaths in residents of other countries. At national level, however, these deaths are included, therefore the sum of deaths in all autonomous communities is not the same as the total number of deaths for all of Spain

<sup>2</sup> Codes for tobacco-related deaths: C15+C32+F10+K70+K73-K74+K76+V00-V99+W00-W99+X00-X99+Y00-Y99

<sup>3</sup> Codes for alcohol-related deaths:C00-C14+C32-C34+C15+I20-I25+I60-I69+J40-J47

**Table 16. Number of deaths from abdominal hernia, appendicitis and adverse effects of medicaments, crude mortality rate and age-adjusted mortality rate, by autonomous community,<sup>1</sup> Spain, 2008**

|                     | Abdominal hernia (K40-K46+K56) |            |                   | Appendicitis (K35-K38) |            |                   | Adverse effects of medicaments (Y40-Y59) |            |                   |
|---------------------|--------------------------------|------------|-------------------|------------------------|------------|-------------------|--|------------|-------------------|
|                     | Number                         | Crude rate | Age-adjusted rate | Number                 | Crude rate | Age-adjusted rate | Number                                   | Crude rate | Age-adjusted rate |
| Spain               | 2,269                          | 5.0        | 2.6               | 66                     | 0.1        | 0.1               | 119                                      | 0.3        | 0.1               |
| Andalusia           | 407                            | 5.0        | 3.2               | 13                     | 0.2        | 0.1               | 19                                       | 0.2        | 0.1               |
| Aragon              | 102                            | 7.8        | 3.1               | 1                      | 0.1        | 0.1               | 4  | 0.3        | 0.2               |
| Asturias            | 63                             | 5.9        | 2.2               | 5                      | 0.5        | 0.2               | 3  | 0.3        | 0.1               |
| Balearic Islands    | 53                             | 5.0        | 3.3               | 1                      | 0.1        | 0.1               | 2  | 0.2        | 0.2               |
| Canary Islands      | 45                             | 2.2        | 1.8               | 2                      | 0.1        | 0.1               | 4  | 0.2        | 0.2               |
| Cantabria           | 23                             | 4.0        | 1.6               | 0                      | 0.0        | 0.0               | 2  | 0.3        | 0.3               |
| Castilla-La Mancha  | 147                            | 7.3        | 3.3               | 1                      | 0.0        | 0.0               | 10                                       | 0.5        | 0.2               |
| Castilla and Leon   | 206                            | 8.2        | 2.8               | 6                      | 0.2        | 0.1               | 9  | 0.4        | 0.2               |
| Catalonia           | 293                            | 4.0        | 2.0               | 11                     | 0.2        | 0.1               | 25                                       | 0.3        | 0.2               |
| Valencian Community | 242                            | 4.9        | 2.8               | 8                      | 0.2        | 0.1               | 8  | 0.2        | 0.1               |
| Extremadura         | 57                             | 5.3        | 2.4               | 0                      | 0.0        | 0.0               | 4  | 0.4        | 0.2               |
| Galicia             | 129                            | 4.7        | 2.0               | 6                      | 0.2        | 0.1               | 4  | 0.1        | 0.0               |
| Madrid              | 220                            | 3.5        | 2.1               | 2                      | 0.0        | 0.0               | 16                                       | 0.3        | 0.2               |
| Murcia              | 65                             | 4.5        | 3.2               | 2                      | 0.1        | 0.1               | 1  | 0.1        | 0.0               |
| Navarre             | 48                             | 7.9        | 3.7               | 1                      | 0.2        | 0.1               | 1  | 0.2        | 0.1               |
| Basque Country      | 134                            | 6.3        | 2.9               | 6                      | 0.3        | 0.2               | 5  | 0.2        | 0.1               |
| La Rioja            | 25                             | 8.0        | 3.2               | 0                      | 0.0        | 0.0               | 0  | 0.0        | 0.0               |
| Ceuta               | 5                              | 6.9        | 5.0               | 0                      | 0.0        | 0.0               | 0  | 0.0        | 0.0               |
| Melilla             | 3                              | 4.3        | 4.2               | 0                      | 0.0        | 0.0               | 0  | 0.0        | 0.0               |

<sup>1</sup> The classification of deaths by autonomous community is based on the autonomous community of residence of the decedent and excludes deaths in residents of other countries. At national level, however, these deaths are included, therefore the sum of deaths in all autonomous communities is not the same as the total number of deaths for all of Spain.



**Table 17. Number of deaths in children under 1 year, and neonatal, postneonatal and infant mortality rate. Spain, 1981-2008**

| Year | Deaths        |                               |              | Mortality rate |              |        |
|------|---------------|-------------------------------|--------------|----------------|--------------|--------|
|      | Under 28 days | Over 28 days and under 1 year | Under 1 year | Neonatal       | Postneonatal | Infant |
| 1981 | 4,659         | 1,985                         | 6,644        | 8.7            | 3.7          | 12.5   |
| 1982 | 4,094         | 1,728                         | 5,822        | 7.9            | 3.4          | 11.3   |
| 1983 | 3,666         | 1,619                         | 5,285        | 7.6            | 3.3          | 10.9   |
| 1984 | 3,178         | 1,492                         | 4,670        | 6.7            | 3.2          | 9.9    |
| 1985 | 2,705         | 1,366                         | 4,071        | 5.9            | 3.0          | 8.9    |
| 1986 | 2,719         | 1,319                         | 4,038        | 6.2            | 3.0          | 9.2    |
| 1987 | 2,546         | 1,243                         | 3,789        | 6.0            | 2.9          | 8.9    |
| 1988 | 2,173         | 1,198                         | 3,371        | 5.2            | 2.9          | 8.0    |
| 1989 | 2,088         | 1,091                         | 3,179        | 5.1            | 2.7          | 7.8    |
| 1990 | 1,997         | 1,053                         | 3,050        | 5.0            | 2.6          | 7.6    |
| 1991 | 1,809         | 1,037                         | 2,846        | 4.6            | 2.6          | 7.2    |
| 1992 | 1,830         | 968                           | 2,798        | 4.6            | 2.4          | 7.1    |
| 1993 | 1,589         | 992                           | 2,581        | 4.1            | 2.6          | 6.7    |
| 1994 | 1,431         | 808                           | 2,239        | 3.9            | 2.2          | 6.0    |
| 1995 | 1,285         | 711                           | 1,996        | 3.5            | 2.0          | 5.5    |
| 1996 | 1,266         | 742                           | 2,008        | 3.5            | 2.0          | 5.5    |
| 1997 | 1,188         | 668                           | 1,856        | 3.2            | 1.8          | 5.0    |
| 1998 | 1,086         | 688                           | 1,774        | 3.0            | 1.9          | 4.9    |
| 1999 | 1,071         | 629                           | 1,700        | 2.8            | 1.7          | 4.5    |
| 2000 | 1,113         | 627                           | 1,740        | 2.8            | 1.6          | 4.4    |
| 2001 | 1,126         | 531                           | 1,657        | 2.8            | 1.3          | 4.1    |
| 2002 | 1,165         | 572                           | 1,737        | 2.8            | 1.4          | 4.1    |
| 2003 | 1,106         | 627                           | 1,733        | 2.5            | 1.4          | 3.9    |
| 2004 | 1,199         | 614                           | 1,813        | 2.6            | 1.4          | 4.0    |
| 2005 | 1,127         | 638                           | 1,765        | 2.4            | 1.4          | 3.8    |
| 2006 | 1,113         | 591                           | 1,704        | 2.3            | 1.2          | 3.5    |
| 2007 | 1,120         | 584                           | 1,704        | 2.3            | 1.2          | 3.5    |
| 2008 | 1,114         | 627                           | 1,741        | 2.1            | 1.2          | 3.3    |

Rates are expressed per 1,000 live births

**Table 18. Number of deaths in children under 1 year of age and infant mortality rate, by cause of death. Spain, 2008**

| Cause of death (based on ICD, 10th revision)  |              | Deaths | Rate <sup>1</sup> |
|---|--------------|--------|-------------------|
| All causes  |              | 1,741  | 335.0             |
| Certain infectious and parasitic diseases   | A00-B99      | 29     | 5.6               |
| Diarrhoea and gastroenteritis of presumed infectious origin   | A09          | 1      | 0.2               |
| Whooping cough  | A37          | 5      | 1.0               |
| Meningococcal disease   | A39          | 2      | 0.4               |
| Septicaemia   | A40-A41      | 13     | 2.5               |
| Neoplasms   | C00-D48      | 18     | 3.5               |
| Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | D50-D89      | 8      | 1.5               |
| Endocrine, nutritional and metabolic diseases   | E00-E90      | 31     | 6.0               |
| Diseases of the nervous system  | G00-G99      | 77     | 14.8              |
| Meningitis  | G00, G03     | 15     | 2.9               |
| Spinal muscular atrophy and related syndromes   | G12          | 15     | 2.9               |
| Diseases of myoneural junction and muscle   | G70-G72      | 13     | 2.5               |
| Diseases of the circulatory system  | I00-I99      | 13     | 2.5               |
| Cardiomyopathy  | I42          | 5      | 1.0               |
| Pulmonary heart disease and diseases of pulmonary circulation                                       | I26-I28      | 4      | 0.8               |
| Diseases of the respiratory system  | J00-J99      | 27     | 5.2               |
| Influenza and pneumonia   | J10-J18      | 6      | 1.2               |
| Acute bronchitis and bronchiolitis  | J20-J21      | 9      | 1.7               |
| Diseases of the digestive system  | K00-K93      | 6      | 1.2               |
| Hernia of the abdominal cavity and intestinal obstruction without hernia                            | K40-K46, K56 | 2      | 0.4               |
| Diseases of the genitourinary system  | N00-N99      | 2      | 0.4               |
| Certain conditions originating in the perinatal period  | P00-P96      | 917    | 176.4             |
| Fetus and newborn affected by maternal complications of pregnancy                                   | P01          | 63     | 12.1              |
| Fetus and newborn affected by complications of placenta, cord and membranes                         | P02          | 35     | 6.7               |
| Disorders related to short gestation and low birth weight, not elsewhere classified                 | P07          | 137    | 26.4              |
| Intrauterine hypoxia and birth asphyxia   | P20-P21      | 53     | 10.2              |
| Respiratory distress of newborn   | P22          | 49     | 9.4               |
| Neonatal aspiration syndromes   | P24          | 17     | 3.3               |
| Interstitial emphysema and related conditions originating in the perinatal period                   | P25          | 18     | 3.5               |
| Pulmonary haemorrhage originating in the perinatal period   | P26          | 20     | 3.8               |
| Chronic respiratory disease originating in the perinatal period                                     | P27          | 22     | 4.2               |
| Primary atelectasis of newborn  | P28.0-P28.1  | 10     | 1.9               |

<sup>1</sup> Rates are expressed per 1,000 live births

**Table 18. Number of deaths in children under 1 year of age and infant mortality rate, by cause of death. Spain, 2008 (continued)**

| Cause of death (based on ICD, 10th revision)   | Deaths | Rate <sup>1</sup> |
|--|--------|-------------------|
| Cardiovascular disorders originating in the perinatal period P29   | 44     | 8.5               |
| Bacterial sepsis of newborn P36  | 115    | 22.1              |
| Neonatal haemorrhage P50-P52, P54  | 59     | 11.4              |
| Haemolytic disease of newborn P60-P61  | 10     | 1.9               |
| Necrotizing enterocolitis of fetus and newborn P77   | 73     | 14.0              |
| Congenital malformations, deformations and chromosomal abnormalities Q00-Q99   | 466    | 89.7              |
| Anencephaly and similar malformations Q00  | 8      | 1.5               |
| Congenital hydrocephalus Q03   | 7      | 1.3               |
| Other congenital malformations of nervous system Q01-Q02, Q04-Q07  | 26     | 5.0               |
| Congenital malformations of heart Q20-Q24  | 171    | 32.9              |
| Other congenital malformations of circulatory system Q25-Q28   | 46     | 8.8               |
| Congenital malformations of respiratory system Q30-Q34   | 16     | 3.1               |
| Congenital malformations of digestive system Q35-Q45   | 30     | 5.8               |
| Congenital malformations of genitourinary system Q50-Q64   | 22     | 4.2               |
| Congenital malformations and deformations of the musculoskeletal system Q65-Q79  | 44     | 8.5               |
| Down's syndrome Q90  | 2      | 0.4               |
| Edwards' syndrome and Patau's syndrome Q91   | 27     | 5.2               |
| Other chromosomal abnormalities not elsewhere classified Q92-Q99   | 3      | 0.6               |
| Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified R00-R99   | 100    | 19.2              |
| Sudden infant death syndrome R95   | 72     | 13.9              |
| External causes of mortality V01-Y98   | 47     | 9.0               |
| Accidents V01-X59  | 44     | 8.5               |
| Motor vehicle accidents V02-V04+V09.0+V09.2+V12-V14+V19.0-V19.2+V19.4-V19.6+V20-V79+V80.3-V80.5+V81.0-V81.1+V82.0-V82.1+V83-V86+V87.0-V87.8+V88.8-V88.9+ V89.0-V89.2 | 9      | 1.7               |
| Falls W00-W19  | 1      | 0.2               |
| Accidental drowning and submersion W65-W74   | 6      | 1.2               |
| Other accidental threats to breathing W75-W84  | 12     | 2.3               |
| Accidental poisoning by and exposure to noxious substances X40-X49   | 0      | 0.0               |
| Assault X85-Y09  | 2      | 0.4               |

<sup>1</sup> Rates are expressed per 1,000 live births

**Table 19. Number of deaths in children under 1 year of age and infant mortality rate for the leading causes of death. Spain, 2000-2008**

| Cause of death (based on ICD, 10th revision)   |      | Deaths | Rate <sup>1</sup> |
|--|------|--------|-------------------|
| All causes   | 2000 | 1,740  | 437.6             |
|  | 2001 | 1,657  | 407.7             |
|  | 2002 | 1,737  | 414.7             |
|  | 2003 | 1,733  | 392.2             |
|  | 2004 | 1,813  | 398.8             |
|  | 2005 | 1,765  | 378.5             |
|  | 2006 | 1,704  | 352.8             |
|  | 2007 | 1,704  | 346.0             |
|  | 2008 | 1,741  | 335.0             |
| Congenital malformations, deformations and chromosomal abnormalities<br>Q00-Q99            | 2000 | 575    | 144.6             |
|  | 2001 | 496    | 122.1             |
|  | 2002 | 518    | 123.7             |
|  | 2003 | 519    | 117.5             |
|  | 2004 | 488    | 107.3             |
|  | 2005 | 492    | 105.5             |
|  | 2006 | 468    | 96.9              |
|  | 2007 | 431    | 87.5              |
|  | 2008 | 466    | 89.7              |
| Disorders related to short gestation and low birth weight, not elsewhere classified<br>P07 | 2000 | 93     | 23.4              |
|  | 2001 | 94     | 23.1              |
|  | 2002 | 116    | 27.7              |
|  | 2003 | 111    | 25.1              |
|  | 2004 | 126    | 27.7              |
|  | 2005 | 108    | 23.2              |
|  | 2006 | 99     | 20.5              |
|  | 2007 | 112    | 22.7              |
|  | 2008 | 137    | 26.4              |
| Bacterial sepsis of newborn<br>P36   | 1999 | 72     | 18.9              |
|  | 2000 | 93     | 23.4              |
|  | 2001 | 97     | 23.9              |
|  | 2002 | 110    | 26.3              |
|  | 2003 | 118    | 26.7              |
|  | 2004 | 113    | 24.9              |
|  | 2005 | 110    | 23.6              |
|  | 2006 | 97     | 20.1              |
|  | 2007 | 135    | 27.4              |
|  | 2008 | 115    | 22.1              |

<sup>1</sup> Rates are expressed per 1,000 live births

**Table 19. Number of deaths in children under 1 year of age and infant mortality rate for the leading causes of death. Spain, 2000-2008 (continued)**

| Cause of death (based on ICD, 10th revision)                             |      | Deaths | Rate <sup>1</sup> |
|--|------|--------|-------------------|
| Necrotizing enterocolitis of fetus and newborn<br>P77                    | 2000 | 35     | 8.8               |
|  | 2001 | 27     | 6.6               |
|  | 2002 | 54     | 12.9              |
|  | 2003 | 61     | 13.8              |
|  | 2004 | 50     | 11.0              |
|  | 2005 | 50     | 10.7              |
|  | 2006 | 62     | 12.8              |
|  | 2007 | 65     | 13.2              |
|  | 2008 | 73     | 14.0              |
| Sudden infant death syndrome<br>R95                                      | 2000 | 70     | 17.6              |
|  | 2001 | 72     | 17.7              |
|  | 2002 | 78     | 18.6              |
|  | 2003 | 75     | 17.0              |
|  | 2004 | 78     | 17.2              |
|  | 2005 | 88     | 18.9              |
|  | 2006 | 71     | 14.7              |
|  | 2007 | 59     | 12.0              |
|  | 2008 | 72     | 13.9              |
| Fetus and newborn affected by maternal complications of pregnancy<br>P01 | 2000 | 55     | 13.8              |
|  | 2001 | 77     | 18.9              |
|  | 2002 | 58     | 13.8              |
|  | 2003 | 48     | 10.9              |
|  | 2004 | 88     | 19.4              |
|  | 2005 | 63     | 13.5              |
|  | 2006 | 57     | 11.8              |
|  | 2007 | 54     | 11.0              |
|  | 2008 | 63     | 12.1              |
| Neonatal haemorrhage<br>P50-P52, P54                                     | 1999 | 57     | 15.0              |
|  | 2000 | 81     | 20.4              |
|  | 2001 | 72     | 17.7              |
|  | 2002 | 82     | 19.6              |
|  | 2003 | 78     | 17.7              |
|  | 2004 | 72     | 15.8              |
|  | 2005 | 91     | 19.5              |
|  | 2006 | 73     | 15.1              |
|  | 2007 | 94     | 19.1              |
| 2008   | 59   | 11.4   |                   |

<sup>1</sup> Rates are expressed per 1,000 live births

**Table 19. Number of deaths in children under 1 year of age and infant mortality rate for the leading causes of death. Spain, 2000-2008 (continued)**

| Cause of death (based on ICD, 10th revision)       |      | Deaths | Rate <sup>1</sup> |
|--|------|--------|-------------------|
| Intrauterine hypoxia and birth asphyxia<br>P20-P21 | 2000 | 69     | 17.4              |
|  | 2001 | 74     | 18.2              |
|  | 2002 | 58     | 13.8              |
|  | 2003 | 52     | 11.8              |
|  | 2004 | 54     | 11.9              |
|  | 2005 | 55     | 11.8              |
|  | 2006 | 46     | 9.5               |
|  | 2007 | 47     | 9.5               |
|  | 2008 | 53     | 10.2              |
| Respiratory distress of newborn<br>P22             | 2000 | 94     | 23.6              |
|  | 2001 | 93     | 22.9              |
|  | 2002 | 82     | 19.6              |
|  | 2003 | 72     | 16.3              |
|  | 2004 | 93     | 20.5              |
|  | 2005 | 75     | 16.1              |
|  | 2006 | 78     | 16.2              |
|  | 2007 | 73     | 14.8              |
|  | 2008 | 49     | 9.4               |
| Unintentional injuries<br>V01-X59                  | 2000 | 32     | 8.0               |
|  | 2001 | 31     | 7.6               |
|  | 2002 | 30     | 7.2               |
|  | 2003 | 41     | 9.3               |
|  | 2004 | 35     | 7.7               |
|  | 2005 | 30     | 6.4               |
|  | 2006 | 22     | 4.6               |
|  | 2007 | 27     | 5.5               |
|  | 2008 | 44     | 8.5               |

<sup>1</sup> Rates are expressed per 1,000 live births

# Appendix

## Source of data on deaths

The information on deaths occurring in residents of Spain is taken from the cause-specific mortality data file provided annually by the National Institute of Statistics (Spanish acronym, INE) to the Institute of Health Information of the Ministry of Health, Social Policy and Equality.

The cause-specific mortality data file is produced from information contained in the statistical bulletin on death (boletín estadístico de defunción) and the statistical bulletin on delivery (boletín estadístico de parto), which are completed at the time a death occurs. The first includes data on deaths occurring after the first 24 hours of life, and the second includes data on deaths occurring within the first 24 hours of life. These statistical bulletins contain information on different sociodemographic and health characteristics of the decedent. For deaths involving judicial intervention, in addition to these bulletins, another questionnaire showing the external circumstances that produced the injuries must be completed by the magistrates' court. In the present report, the following characteristics included in these bulletins have been used: age and sex of the decedent, autonomous community of residence, and underlying cause of death.

The process established for the collection of data included in the cause-specific mortality data file begins when the INE sends the forms for the statistical bulletins on death and delivery to all the Civil Registry offices. The section of these statistical bulletins referring to the causes of death must be filled out and signed by the physician certifying the death; the remaining data are recorded by family members or other persons obliged by law to issue a statement. The Civil Registry

offices then send the completed bulletins to the INE. Since 1983, the INE has established cooperative agreements with the autonomous communities to the effect that the regional statistics departments code the information in these bulletins on the deaths occurring in their territory. The autonomous communities then return the duly coded information to the INE, after incorporating the information contained on each decedent in their respective mortality files.

The deaths of persons residing in Spain are analysed in this report. We have studied, on the one hand, deaths in the whole population by age, sex and autonomous community of residence and, on the other, deaths in children under 1 year of age in order to obtain the magnitude and trend of infant mortality. In both cases, total deaths and deaths by selected specific causes of death are analysed.

## Classification of underlying cause of death

Cause of death is coded in accordance with the International Classification of Diseases and Causes of Death (ICD) of the World Health Organisation. Since 1999, the underlying cause of death listed in the statistical bulletin on death and the statistical bulletin on delivery has been coded according to the codes of the ICD, 10th revision, which lists 21 large groups and 2,036 specific categories of causes of death.

Between 1980 and 1998 the ICD, 9th revision, was in effect, which contained 17 large groups and 1,178 categories of causes of death, and previous versions of the ICD were used in the years before. These changes in cause-of-death classification due to ICD revisions may give rise to changes in mortality trends from some causes of death. For this reason, comparison of causes of death between different ICD revisions requires a close examination of the code or codes

included in the definition of each cause of death. A marked change in the mortality trend in the year in which a new ICD revision has been introduced suggests there may be problems in comparing the cause of death being analysed.

In this report the tabulations of the causes of death are based on the underlying cause of death. According to the World Health Organisation, the underlying cause of death is the disease or injury that initiated the train of events leading directly to death. When the cause is a traumatic injury, the underlying cause is considered to be the circumstances of the accident or act of violence which produced the fatal injury. The underlying cause of death is selected from the different conditions certified by the physician in the statistical bulletin on death. When there is more than one cause or condition certified by the physician, the underlying cause is determined by the order in which the conditions are listed in the bulletin, together with a series of rules provided by the ICD for selection of the underlying cause.

Various indicators exist to evaluate the quality of cause-of-death information listed in the death registries. One of these is the proportion of deaths that must be assigned to groups categorised as poorly defined signs and symptoms. In Spain, 2.3% of deaths were due to poorly defined causes in 2008. In other countries of the European Union, this percentage ranges between 0.5% and 5.5%.

## Tabulations of causes of death

Most of the data tables in this report show the causes of death that produce the largest number of deaths in the whole population. Accordingly, some demographic groups by age or sex will show no deaths from some of the selected causes. The causes of death tabulated have been selected following the criteria of the United States Centers for Disease Control and Prevention.

This report presents detailed information on trends in mortality from the 15 causes of death that produce the largest number of deaths. Specifically, information is presented since the year 2000. This report also shows how the age-adjusted mortality rates from these causes of death have evolved since 1981. As previously noted, between 1981 and 1998, the 9th revision of the ICD was used for coding, therefore it was necessary to select the ICD-9 codes corresponding to these 15 causes of death. In any event, each revision of the ICD brings about changes in the classification, and for some causes of death these changes can artificially alter the trend. Thus, in some cases, the mortality trend by cause of death must be viewed with caution when it includes periods in which various revisions of the ICD have been used.

This report also includes different data tables showing deaths in 2008 from 83 selected causes of death. Some of these selected causes of death may consist of a specific ICD category or of groups of specific causes. These 83 selected causes of death are not mutually exclusive; in some cases a cause of death consists of a group of other causes of death, some of which may appear in the list while others do not.

## Codes for causes of death related to tobacco and alcohol

In addition to the causes of death mentioned, the causes of death related to tobacco consumption and alcohol consumption have also been tabulated. The causes of death selected are those proposed by the World Health Organisation (WHO) in its European Health for All Database.

In the case of deaths related to tobacco consumption, WHO combines mortality from different causes of death that are known from the scientific literature to be related to smoking. They include the following codes



from the ICD, 10th revision: C00, cancer of the lip; C14, cancer of the pharynx; C32, cancer of the larynx; C33-C34, cancer of the trachea, bronchus and lung; C15, cancer of the esophagus; I20-I25, ischaemic heart diseases; I60-I69, cerebrovascular disease; and J40-J47, chronic lower respiratory diseases.

For deaths related to alcohol consumption, WHO also combines the mortality from different causes of death that are known from the scientific literature to be related to alcohol consumption. They include the following codes from the ICD, 10th revision: C15, cancer of the esophagus; C32, cancer of the larynx; F10, mental and behavioural disorders due to alcohol use; K70, alcoholic liver disease; K73-K74, cirrhosis and other chronic diseases of the liver; and V01-Y 98, external causes.

These groupings, regardless of the proportion of death that can be attributed to smoking or alcohol consumption for each cause of death, are useful in evaluating the trends in deaths related to these risk factors.

## Codes for causes of death attributable to tobacco and alcohol

In addition to the causes of death related to tobacco and alcohol consumption, other groups of causes of death have been studied that can be considered attributable to the consumption of these substances. In the case of smoking, deaths from cancer of the trachea, bronchus and lung (C33-C34 of the ICD, 10th revision) have been selected. According to the scientific literature, 90% of deaths from these causes are due to smoking.

In the case of alcohol it has been selected those causes of death in which the word "alcohol" is explicitly mentioned in the name as given in the ICD, 10th revision. These are causes of death that are not usually included

in epidemiological studies of the causes of death associated with alcohol consumption because of their low frequency. These causes of death and their ICD, 10th revision codes are as follows: E24.4, alcohol induced pseudo-Cushing's syndrome; F10, mental and behavioural disorders due to use of alcohol; G31.2, degeneration of the nervous system due to alcohol; G62.1, alcoholic polyneuropathy; G72.1, alcoholic myopathy; I42.6, alcoholic cardiomyopathy; K29.2, alcoholic gastritis; K70, alcoholic liver disease; K86.0, alcohol-induced chronic pancreatitis; R78.0, finding of alcohol in blood; X45, accidental poisoning by alcohol; X65, intentional self-poisoning by alcohol; and Y15, poisoning by alcohol, undetermined intent.

In theory, tobacco-attributable deaths and alcohol-attributable deaths should provide a more sensitive indicator of the trends in the causes of death associated with these risk factors.

## Codes for causes of death related to the quality of the health system

Some causes of death can be used to evaluate the quality of health services. In this report, the causes listed in the WHO European "Health for All" database have been chosen. The specific codes are: appendicitis (codes K35-K38 of the ICD, 10th revision), hernia and intestinal obstruction (codes K40-K46 and K56), and adverse effects of drugs and other therapeutic agents (codes Y40-Y59).

## Infant mortality

Infant mortality rates are the most widely used indicator to measure the risk of mortality during the first year of life. The rates presented in this report were calculated by dividing the number of infant

deaths in each year by the number of live births in the same year. The rates are presented per 1,000 live births or per 100,000 live births. Information on the number of births each year was obtained from the data file on births provided by the INE. The information on births is obtained from the statistical bulletin on delivery which, once completed by parents or family members and by health personnel, is sent by the offices of the Civil Registry to the INE. This report presents the evolution of infant mortality since the year 1981.

It should be kept in mind that the tables presenting mortality rates by age of decedent show the rates for children under 1 year of age. These rates may not be the same as the infant mortality rate. Whereas the denominator for infant mortality rates is based on the number of live births per year, the denominator for mortality rates in children under 1 year is the population of children under 1 year, estimated as of 1 July each year.

## Tabulation of causes of death in children under 1 year of age

The data table on causes of infant death in this report presents the causes of death that produce the largest number of deaths in children under 1 year of age. The causes of death subject to tabulation have been selected following the criteria of the United States Centers for Disease Control and Prevention.

The trend in infant mortality from the 10 leading causes of death has been studied in more detail. Information is provided from the year 2000. Different data tables have also been developed for deaths in 2008 from 59 selected causes of death. Some causes of death selected may be made up of a specific ICD category or of groups of specific causes.

Likewise, the 59 causes of death selected are not mutually exclusive; rather, some causes of death may refer to a group of other causes of death, some of which may be included in the list while others are not.

## Source of population data

The populations used to calculate the mortality rates are taken from the Population Projections for Spain for the period 1980-2010 based on the 1981 Census (1981 to 1990), from the Population Projections for Spain based on the 1991 Population Census (1991 to 2001), and from the Current Population Estimates (2002 to 2008), all of which are prepared by the INE. In all cases the data refer to the population as of 1 July for each year. The populations used are shown in the annex table.

The number of persons by sex and age from each census is used as the initial population for the population projections. In turn, the estimated population projections are then compared with those obtained in the corresponding census. The differences between the calculated and observed populations produce breaks in the population series, making it necessary to link or correct the established projections according to the results of successive censuses; that is, intercensus population estimates must be obtained.

In contrast, the 2001 Population and Household Census was used as the initial population for estimates of the current population. The estimated parameters for the evolution of fertility and mortality were developed based on the final results available from Vital Statistics; to adjust for migratory movements in each period, it was used the estimated migrations based on the movements recorded in the Ongoing Population Register (Padrón Continuo de Habitantes).

## Calculation of mortality rates

Except in the case of infant mortality, mortality rates were calculated taking deaths in the corresponding year as the numerator and the population as of 1 July in that year as the denominator. The results are expressed per 100,000 population in each group analysed. As previously noted, the infant mortality rates are shown per 1,000 or per 100,000 live births.

The age distribution in the population varies from one year to another, and this age distribution also differs among autonomous communities. Likewise, the age distribution of men in the population is different from that of women. In fact, the proportion of women is larger in the elderly, precisely the time when the risk of mortality is highest. For this reason, temporal comparisons of mortality rates in the entire country, comparison of mortality rates among autonomous communities, or comparison of mortality rates between men and women, without adjusting for the different age structure, distorts the true differences in the risk of mortality. Conversely, adjusting the mortality rate for age makes it possible to compare mortality rates between different study populations, since it eliminates the distortion due to different age structure in the comparisons.

The age-adjusted mortality rate in each group is just a weighted mean of the age-specific mortality rates, where the weights are taken from the size of the standard population in each age category. The age-adjusted mortality rates in this report were

estimated using the age distribution of the standard European population (Waterhouse JAH, Muir CS, Correa P, Powell J eds. *Cancer Incidence in Five Continents*. Lyon: IARC, 1976; 3: 456.). This population is as follows:

| Age Under   | Population |
|-------------|------------|
| 1           | 1,600      |
| 1-4         | 6,400      |
| 5-9         | 7,000      |
| 10-14       | 7,000      |
| 15-19       | 7,000      |
| 20-24       | 7,000      |
| 25-29       | 7,000      |
| 30-34       | 7,000      |
| 35-39       | 7,000      |
| 40-44       | 7,000      |
| 45-49       | 7,000      |
| 50-54       | 7,000      |
| 55-59       | 6,000      |
| 60-64       | 5,000      |
| 65-69       | 4,000      |
| 70-74       | 3,000      |
| 75-79       | 2,000      |
| 80-84       | 1,000      |
| 85 and over | 1,000      |

If  $T_i$  is the mortality rate per 100,000 population in age category  $i$  in a particular population group, and  $P_i$  is the size of the standard population in age category  $i$ , the age-adjusted mortality rate in that group is  $\sum T_i P_i / \sum P_i$ .

# Annex. Population by age, Spain, 2000-2008

|            | All ages   | Age     |           |           |           |           |           |           |           |           |           |             |
|------------|------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
|            |            | < 1     | 1-4       | 5-14      | 15-24     | 25-34     | 35-44     | 45-54     | 55-64     | 65-74     | 75-84     | 85 and over |
| Both sexes |            |         |           |           |           |           |           |           |           |           |           |             |
| 2000       | 40,264,162 | 388,222 | 1,470,691 | 4,092,984 | 5,847,238 | 6,677,443 | 6,050,673 | 4,936,173 | 4,028,521 | 3,869,523 | 2,214,296 | 688,398     |
| 2001       | 40,721,447 | 403,869 | 1,501,513 | 4,044,325 | 5,704,349 | 6,818,846 | 6,240,844 | 5,032,691 | 4,060,232 | 3,892,786 | 2,292,171 | 709,821     |
| 2002       | 41,314,019 | 414,156 | 1,559,252 | 4,031,186 | 5,575,712 | 6,983,974 | 6,430,207 | 5,148,663 | 4,173,559 | 3,891,481 | 2,376,599 | 729,250     |
| 2003       | 42,004,575 | 429,563 | 1,627,456 | 4,042,986 | 5,458,516 | 7,159,994 | 6,614,144 | 5,290,333 | 4,287,698 | 3,876,835 | 2,466,649 | 750,401     |
| 2004       | 42,691,751 | 445,971 | 1,689,957 | 4,059,818 | 5,341,098 | 7,316,895 | 6,789,823 | 5,451,359 | 4,410,563 | 3,852,856 | 2,555,020 | 778,391     |
| 2005       | 43,398,190 | 454,922 | 1,747,789 | 4,088,366 | 5,237,238 | 7,460,862 | 6,968,974 | 5,622,835 | 4,548,763 | 3,815,999 | 2,639,780 | 812,662     |
| 2006       | 44,068,244 | 462,461 | 1,796,935 | 4,134,050 | 5,139,794 | 7,557,199 | 7,142,877 | 5,799,942 | 4,678,611 | 3,782,589 | 2,721,098 | 852,688     |
| 2007       | 44,873,567 | 477,301 | 1,848,939 | 4,208,774 | 5,087,114 | 7,652,589 | 7,338,803 | 6,002,184 | 4,792,656 | 3,775,260 | 2,794,203 | 895,744     |
| 2008       | 45,693,385 | 494,188 | 1,899,713 | 4,301,762 | 5,037,981 | 7,672,211 | 7,517,170 | 6,203,043 | 4,891,008 | 3,781,045 | 2,855,316 | 939,948     |
| Men        |            |         |           |           |           |           |           |           |           |           |           |             |
| 2000       | 19,719,334 | 200,256 | 755,726   | 2,102,616 | 2,992,652 | 3,390,618 | 3,027,461 | 2,448,703 | 1,949,073 | 1,767,666 | 873,608   | 210,955     |
| 2001       | 19,956,780 | 207,701 | 771,449   | 2,077,148 | 2,921,038 | 3,471,586 | 3,127,378 | 2,497,112 | 1,976,768 | 1,779,656 | 910,315   | 216,629     |
| 2002       | 20,266,005 | 212,731 | 800,853   | 2,069,866 | 2,855,801 | 3,566,812 | 3,229,071 | 2,555,234 | 2,024,216 | 1,780,080 | 949,485   | 221,856     |
| 2003       | 20,626,192 | 221,429 | 835,831   | 2,075,819 | 2,795,116 | 3,667,417 | 3,329,890 | 2,626,095 | 2,081,021 | 1,774,408 | 991,040   | 228,126     |
| 2004       | 20,987,670 | 229,883 | 868,613   | 2,084,465 | 2,735,115 | 3,759,199 | 3,428,470 | 2,70,7015 | 2,141,259 | 1,765,381 | 1,031,871 | 237,399     |
| 2005       | 21,367,297 | 234,489 | 898,694   | 2,099,387 | 2,683,986 | 3,844,965 | 3,531,474 | 2,793,693 | 2,208,536 | 1,751,045 | 1,071,171 | 249,877     |
| 2006       | 21,725,232 | 238,860 | 924,496   | 2,122,756 | 2,635,454 | 3,903,848 | 3,632,232 | 2,883,558 | 2,271,382 | 1,738,859 | 1,109,039 | 265,248     |
| 2007       | 22,155,286 | 245,850 | 951,643   | 2,161,485 | 2,609,810 | 3,962,434 | 3,746,598 | 2,986,735 | 2,326,346 | 1,739,500 | 1,142,736 | 282,149     |
| 2008       | 22,512,354 | 254,484 | 977,123   | 2,209,304 | 2,581,615 | 3,966,630 | 3,845,720 | 3,087,905 | 2,373,266 | 1,745,947 | 1,170,895 | 299,465     |
| Women      |            |         |           |           |           |           |           |           |           |           |           |             |
| 2000       | 20,544,828 | 187,966 | 714,965   | 1,990,368 | 2,854,586 | 3,286,825 | 3,023,212 | 2,487,470 | 2,079,448 | 2,101,857 | 1,340,688 | 477,443     |
| 2001       | 20,764,667 | 196,168 | 730,064   | 1,967,177 | 2,783,311 | 3,347,260 | 3,113,466 | 2,535,579 | 2,103,464 | 2,113,130 | 1,381,856 | 493,192     |
| 2002       | 21,048,014 | 201,425 | 758,399   | 1,961,320 | 2,719,911 | 3,417,162 | 3,201,136 | 2,593,429 | 2,149,323 | 2,111,401 | 1,427,114 | 507,394     |
| 2003       | 21,378,383 | 208,134 | 791,625   | 1,967,167 | 2,663,400 | 3,492,577 | 3,284,254 | 2,664,238 | 2,206,677 | 2,102,427 | 1,475,609 | 522,275     |
| 2004       | 21,704,081 | 216,088 | 821,344   | 1,975,353 | 2,605,983 | 3,568,696 | 3,361,353 | 2,744,344 | 2,269,304 | 2,087,475 | 1,523,149 | 540,992     |
| 2005       | 22,030,893 | 220,433 | 849,095   | 1,988,979 | 2,553,272 | 3,615,897 | 3,437,500 | 2,829,142 | 2,340,227 | 2,064,954 | 1,568,609 | 562,785     |
| 2006       | 22,343,012 | 224,101 | 872,439   | 2,011,294 | 2,504,340 | 3,663,351 | 3,510,645 | 2,916,384 | 2,407,229 | 2,043,730 | 1,612,059 | 587,440     |
| 2007       | 22,718,281 | 231,451 | 897,296   | 2,047,289 | 2,477,304 | 3,690,155 | 3,592,205 | 3,015,449 | 2,466,310 | 2,035,760 | 1,651,467 | 613,595     |
| 2008       | 23,081,031 | 239,704 | 922,590   | 2,092,458 | 2,456,366 | 3,705,581 | 3,671,460 | 3,115,138 | 2,517,742 | 2,035,098 | 1,684,421 | 640,483     |



This report presents estimates on number of deaths and mortality rates in Spain for 2008, according to different demographic and geographic characteristics. Specifically, it provides information on the mortality patterns in general mortality and mortality by cause of death in the population resident in Spain, by sex, age and autonomous community of residence. Also, it shows the evolution of mortality rates by the leading causes of death and the evolution of infant mortality rates in the whole State.

