

# Health

Health is an important priority for Europeans, who expect to be protected against illness and disease – at home, in the workplace and when travelling. Health issues cut across a range of topics – including consumer protection (food safety issues), workplace safety, environmental or social policies – and thus have a considerable impact on the Europe 2020 strategy of the European Union (EU). The policy areas covered within this theme are under the remit of the Directorate-General for Health and Consumers and of the Directorate-General for Employment, Social Affairs and Inclusion.

The competence for the organisation and delivery of health services and healthcare is largely held by the Member States, while the EU complements the Member States' health policies through launching actions such as those in relation to cross-border health threats and patient mobility. Gathering and assessing accurate, detailed information on health issues is vital for the EU to effectively design policies and target future actions. A first programme for Community action in the field of public health covered the period 2003 to 2008.

On 23 October 2007 the European Commission adopted a new strategy 'Together for health: a strategic approach for the EU 2008-2013'. In order to bring about the changes identified within this new strategy, the second programme of Community action in the field of health came into force from 1 January 2008. It put in place an overarching, strategic framework for policy developments relating to health in the coming years; it has four main principles and three strategic themes for improving health in the EU. The principles include:

- taking a value-driven approach;
- recognising the links between health and economic prosperity;
- integrating health in all policies;
- strengthening the EU's voice in global health issues.

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The strategic themes include:

- fostering good health in an ageing Europe;
- protecting citizens from health threats;
- looking to develop dynamic health systems and new technologies.

The programme is valued at EUR 321.5 million and will be implemented by means of annual work plans which will set out priority areas and funding criteria.

Set up at the Lisbon European Council of March 2000, the Open method of coordination (OMC) on social protection and social inclusion provides a framework of political coordination without legal constraints. Member States agree to identify and promote their most effective policies in the fields of social protection and social inclusion with the aim of learning from each others' experiences. The health and long-term care strand of the OMC is structured according to three objectives:

- access to care and inequalities in outcomes;
- quality of care;
- long-term sustainability of systems.

Concerning health and safety at work, the EC Treaty states that 'the Community shall support and complement the activities of the Member States in the improvement in particular of the working environment to protect workers' health and safety.' In 2007 the Council adopted Resolution 2007/C 145/01 of 25 June 2007 on a new Community strategy on health and safety at work (2007-2012). Actions in the field of health and safety at work are supported by the PROGRESS programme (2007-2013). In December 2008 the European Parliament and the Council adopted Regulation 1338/2008 on Community statistics on public health and health and safety at work.

## 3.1 Healthy life years

Healthy life years, the number of years that a person is expected to continue to live in a healthy condition, is an important measure of the relative health of populations in the European Union (EU). Eurostat calculates this indicator for two ages (at birth and at the age of 65), with the indicator being presented separately for males and females.

Whether extra years of life gained through increased longevity are spent in good or bad health is a crucial question. Since life expectancy at birth is not able to fully answer this question, indicators of health expectancies, such as healthy life years (also called disability-free life expectancy) have been developed. These focus on the quality of life spent in a healthy state, rather than the quantity of life – as measured by life expectancy. The calculation of the healthy life years indicator is based on a self-perceived question which aims to measure the extent of any limitations because of a health prob-



lem that may have affected respondents as regards activities they usually do (for at least six months).

## Main statistical findings

In 2008 the number of healthy life years at birth in the EU-27 reached 60.8 years for men and 61.9 years for women; this represented 79.9 % and 75.3 % of total life expectancy at birth for men and women. For survivors at the age of 65, the number of remaining healthy life years was 8.2 years for men and 8.3 years for women. These figures can be contrasted with the life expectancy of those who survive to the age of 65 – close to 15 years for men and 20 years for women.

Life expectancy for women in the EU-27 was, on average, six years longer than that for men in 2008. However, most of these additional years tend to be lived with activity limitations. Indeed, the gender gap was considerably smaller in terms of healthy life years – less than two years difference in favour of women – than for overall life expectancy.

Men tend to spend a greater proportion of their shorter life expectancy free of activity limitation. Across the EU Member States, life expectancy at birth in 2008 ranged between 66.3 years and 79.2 years (12.9 years difference) for men and between 77.0 years and 84.9 years (7.9 years difference) for women. The corresponding healthy life years values ranged from 51.5 years to 69.2 years (17.7 years difference) for men and from 52.3 years to 71.9 years (19.6 years difference) for women. Differences between Member States therefore occur more in terms of the quality (health wise) of life, rather than the number of years of life expectancy. In six of the Member States (Denmark, Spain, Luxembourg, the Netherlands, Portugal and Sweden), men (at birth) could expect to live longer than women without disability, and this was also the case in Iceland and Norway. In Estonia, Lithuania and Poland the gender gap in healthy life years at birth was more than four years in favour of women.

Life expectancy was rather stable between 2007 and 2008. However, the number of healthy life years decreased both for men and women during the same period. The reduction in the number of healthy life years at birth between 2007 and 2008 was particularly noticeable in Bulgaria, Denmark, Germany, the Netherlands and Slovakia for both men and women; relatively large falls were also noted in Greece, Austria and Slovenia among women. This reduction in the number of healthy life years was generally more apparent at age 65 than at birth.

## Data sources and availability

The indicator for healthy life years is calculated using mortality statistics and data on self-perceived disability. Mortality data comes from Eurostat's demographic database, while self-perceived disability data comes from a minimum European health module that is integrated within the survey on EU statistics on income and living conditions (EU-SILC). The EU-SILC question is: For at least the past six months, to what extent have you been limited because of a health problem in activities people usually do? Would you say you have been: strongly limited? / limited? / not limited at all?



## Context

Life expectancy at birth remains one of the most frequently quoted indicators of health status and economic development. Life expectancy at birth has risen rapidly in the last century due to a number of important factors, including reductions in infant mortality, rising living standards, improved lifestyles and better education, as well as advances in healthcare and medicine. While most people are aware that successive generations are living longer, less is known about the health of the EU's ageing population.

The health status of a population is difficult to measure because it is hard to define among individuals, populations, cultures, or even across time periods. As a result, the demographic measure of life expectancy has often been used as a measure of a nation's health status because it is based on a simple and easy to understand characteristic – namely, that of death.

Indicators on healthy life years introduce the concept of the quality of life, by focusing on those years that may be enjoyed by individuals free from the limitations

Figure 3.1: Healthy life years at birth, females

of illness or disability. Chronic disease, frailty, mental disorders and physical disability tend to become more prevalent in older age, and may result in a lower quality of life for those who suffer from such conditions, while the burden of these conditions may also impact on healthcare and pension provisions.

Healthy life years also monitor health as a productive or economic factor. An increase in healthy life years is one of the main goals for EU health policy, given that this would not only improve the situation of individuals (as good health and a long life are fundamental objectives of human activity) but would also lead to lower public healthcare expenditure. If healthy life years increase more rapidly than life expectancy, then not only are people living longer, but they are also living a greater proportion of their lives free from health problems. Any loss in health will, nonetheless, have significant effects. These will include an altered pattern of resource allocation within the healthcare system, as well as wider ranging effects on consumption and production throughout the economy.



(1) 2006, not available.
(2) 2008, not available.

(years)

Source: Eurostat (hlth\_hlye)



# Figure 3.2: Healthy life years at birth, males (years)



(1) 2006, not available.
(2) 2008, not available.

#### Source: Eurostat (hlth\_hlye)





(2) 2008, not available.

Source: Eurostat (hlth\_hlye)

**Figure 3.4:** Healthy life years at age 65, males (years)



Source: Eurostat (hlth\_hlye)





## 3.2 Causes of death

This subchapter gives an overview of recent statistics on causes of death in the European Union (EU). By relating all deaths in the population to an underlying cause of death, the risks associated with death from a range of specific diseases and other causes can be assessed, and these figures can be further broken down by age, gender, nationality and region (NUTS level 2), using standardised death rates.

Statistics on causes of death are important to evaluate the state of health and healthcare in the EU. They suggest which preventive and medical-curative measures and which investments in research might increase the life expectancy of the population. As these statistics are among the oldest medical statistics available, they provide an excellent view on developments over time and on differences between Member States.

## Main statistical findings

The latest information available for 2008 (<sup>1</sup>) shows that diseases of the circulatory system and cancer were, by far, the leading causes of death in Europe. Between 2000 and 2008 there was a marked reduction in EU-27 death rates resulting from ischaemic heart disease and from transport accidents (each falling overall by about 30 %), while there was a reduction of almost 10 % in EU-27 death rates for cancer during the same period (see Figure 3.5).

### Diseases of the circulatory system

Diseases of the circulatory system include those related to high blood pressure, cho-

lesterol, diabetes, and smoking; although, the most common cause of death was ischaemic heart disease. The Member States with the highest death rates from ischaemic heart disease – for men and women – were the Baltic Member States, Slovakia and Hungary, while France, Portugal, the Netherlands and Spain had the lowest rates.

#### Cancer

Cancer was a major cause of death in each of the EU Member States, but Hungary, Denmark (2006 data), Poland, Slovenia, Slovakia and the Czech Republic were most affected by this group of diseases. The most common forms of cancer in the EU-27 in 2008 included malignant neoplasms of the larynx, trachea, bronchus and lung, colon, breast, and those that the International classification of diseases (ICD) classifies as 'stated or presumed to be primary, of lymphoid, hematopoietic and related tissue'.

Analysing the figures by gender, men outnumbered women in relation to the number of deaths from cancer. Data for cancer of the larynx, trachea, bronchi and lung showed some marked differences between Member States in 2008: for men Hungary reported the highest death rate from these cancers among the EU Member States, followed by Poland, the Baltic Member States and Belgium (2005 data); Hungary also reported a high rate for women, just behind the rate reported for Denmark (2006 data). Mortality figures for this type of cancer are generally rising for women while decreasing for men.

(1) Italy, Luxembourg, Malta, Sweden, the United Kingdom and Switzerland, 2007; Denmark, 2006; Belgium, 2005.



Breast cancer as a cause of death among women had similar values across the EU Member States, standing out slightly in Denmark and Ireland, while Spain recorded the lowest rates – see Table 3.1.

### **Respiratory diseases**

The highest death rates from respiratory diseases in 2008 were recorded in the United Kingdom (2007 data), Belgium (2005 data), Ireland, Portugal and Denmark (2006 data). After cancer and circulatory diseases, this was the third most common cause of death in the EU-27. Within this group of diseases, chronic lower respiratory diseases were the most common cause of mortality followed by pneumonia. Respiratory diseases are agerelated with the vast majority of deaths from these diseases are recorded among those aged 65 or more.

### **External causes of death**

This category includes deaths resulting from intentional self-harm (suicide) and transport accidents. Although suicide is not a major cause of death and the data for some Member States may suffer from underreporting, it is often considered as an important indicator to be addressed by society. The lowest suicide rates in 2008 were recorded in Greece, Cyprus and Spain, and relatively low rates were also recorded in Italy, Malta and the United Kingdom (2007 data). In 2008, the death rate from suicide in Lithuania was approximately three times the EU-27 average, and relatively high rates (around double the EU-27 average) were also recorded in Hungary and Latvia. Among women, relatively high suicide rates were recorded in Luxembourg (2007 data), Belgium (2005 data), Finland and France.

Although transport accidents occur on a daily basis, the number of deaths caused by transport accidents are fewer than, for example, the number of suicides. Lithuania, Romania and Latvia were the Member States with the highest death rates resulting from transport accidents, while Malta (2007 data) and the Netherlands reported the lowest rates.

### Gender

Death rates were higher for men than for women for all of the main causes of death, with death rates up to four to five times higher than those recorded for women for drug dependence and alcohol abuse. The death rates for AIDS/HIV and for suicide and intentional self-harm were three to four times higher for men than for women. Death rates for ischaemic heart diseases were about twice as high for men (120 per 100 000 inhabitants in 2008) as for women (61 per 100 000 inhabitants) in the EU-27, as reflected in Figure 3.9. There was a higher incidence of death from heart disease than from cancer for both genders in the Baltic Member States, Slovakia and Romania, while in Finland there were more deaths from heart disease than from cancer among the male population.

#### Age

For persons below 65 years of age the leading causes of mortality were somewhat different in terms of their relative importance (see Table 3.2). Cancer was the leading cause of death within this age group, followed by diseases of the circulatory



system, external causes of mortality and morbidity, and diseases of the digestive system. However, unlike for those aged 65 years or more, diseases of the respiratory system did not figure among the four most prevalent causes of mortality.

## Data sources and availability

Eurostat began collecting and disseminating mortality data in 1994, broken down by:

- a shortlist of 65 causes of death based on the International classification of diseases (ICD), developed and maintained by the World Health Organization (WHO);
- gender;
- age;
- geographical region (NUTS level 2).

Annual data are provided in absolute numbers, as crude death rates and as standardised death rates. Since most causes of death vary significantly by age and sex, the use of standardised death rates improves comparability over time and between countries as death rates can be measured independently of the age structure of populations.

Statistics on the cause of death are based on two pillars: medical information contained on death certificates, which may be used as a basis for the ascertaining the cause of death; and the coding of causes of death following the WHO-ICD system.

The validity and reliability of statistics on the cause of death rely on the quality of the data by the certifying physician. Inaccuracies may result for several reasons, including:

- errors can occur with the issue of the death certificate;
- the medical diagnosis;
- the selection of the main cause of death;
- the coding of the cause of death.

Sometimes there is ambiguity in the cause of death of a person. Besides the illness leading directly to death, the medical data on the death certificate should also contain a causal chain linked to the suffering of the deceased. Other substantial health conditions may be indicated, which did not have a link to the illness leading directly to death, but may have unfavourably affected the course of a disease and thus contributed to the fatal outcome. Indeed, there is sometimes criticism that the coding of only one illness as a cause of death appears more and more unrealistic in view of the increasing life expectancy and associated changes in morbidity. For the majority of the deceased of 65 years and older the selection of just one out of a number of possible causes of death may be somewhat misleading. For this reason, some of the EU Member States have started to consider multiple-cause coding. Eurostat has supported Member States in their efforts of developing a joint automated coding system called IRIS for the improvement and better comparability of the causes of death data in Europe.

### Context

Statistics on causes of death play a key role in the general information system relating to the state of health in the European Union (EU). All deaths in the population are identified by the underlying cause of death, in other words 'the



disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury' (a definition adopted by the World Health Assembly). The data presented in this subchapter provide information on the risks associated with death from a range of specific diseases and other causes; a breakdown by age, gender, nationality and region (NUTS level 2) of the deceased is also available.

Statistics on causes of death provide indications as to which preventive and medicalcurative measures as well as investments in research have the potential to increase the life expectancy of the population. These are some of the oldest medical statistics available, and therefore can be used to look at developments over time and differences in the number of deaths between Member States. Standardised death rates may be used as a starting point for targeted epidemiological research. As there is a general lack of comprehensive European morbidity statistics, data on causes of death are often used as a tool for evaluating health systems in the EU and may also be employed for evidence-based health policy.

Figure 3.5: Causes of death - standardised death rate per 100 000 inhabitants, males, EU-27 (1) (2000 = 100)130 120 110 100 90 80 70 60 2000 2001 2002 2004 2005 2006 2008 2003 2007 Nervous system Cancer (malignant neoplasms) Lung cancer (malignant neoplasm of larynx, trachea, bronchus and lung) Ischaemic heart diseases Transport accidents

(1) Provisional.



## Table 3.1: Causes of death - standardised death rate, 2008 (1) (per 100 000 inhabitants)

	Total							Females	
	Cancer (²)	Lung cancer (³)	Colo- rectal cancer	Circula- tory disease	Heart disease ( <sup>4</sup> )	Respira- tory diseases	Transport accidents	Breast cancer	Uterus cancer
EU-27	173.0	39.6	19.3	227.2	84.1	44.7	8.3	23.7	7.4
Belgium	174.5	46.3	18.4	198.2	67.5	68.9	10.6	29.4	6.2
Bulgaria	171.6	38.9	22.7	611.3	126.0	41.7	13.3	23.3	13.1
Czech Republic	201.0	42.0	27.9	355.8	176.2	40.2	10.3	21.2	9.7
Denmark	208.0	53.9	26.2	193.7	71.6	60.6	5.8	31.1	7.0
Germany	162.6	35.0	18.8	223.2	86.4	37.7	5.4	24.6	5.6
Estonia	190.3	40.4	19.7	451.4	224.4	26.5	11.4	22.6	13.4
Ireland	176.7	37.7	20.6	190.7	102.3	64.8	6.2	31.1	7.8
Greece	157.2	40.8	12.4	258.9	67.3	53.5	14.1	21.7	4.9
Spain	154.6	36.5	19.8	151.4	47.4	52.8	7.2	18.2	5.7
France	166.0	36.6	16.7	124.7	33.8	27.3	6.9	24.1	6.4
Italy	163.7	35.9	17.6	179.1	62.0	29.6	9.2	23.6	5.4
Cyprus	121.6	22.0	9.4	208.6	73.9	36.3	11.6	22.8	7.1
Latvia	191.9	38.0	20.0	505.9	263.5	25.0	15.9	24.7	13.7
Lithuania	195.0	37.0	21.2	520.1	321.3	39.5	16.8	25.1	15.4
Luxembourg	167.7	44.4	20.5	210.8	63.8	43.4	8.7	20.5	7.3
Hungary	241.7	70.0	33.7	428.6	216.9	43.4	11.7	26.6	10.5
Malta	155.0	25.7	21.4	231.5	119.9	52.2	3.6	27.9	10.2
Netherlands	184.4	47.2	21.2	159.3	46.8	53.4	4.1	29.0	5.5
Austria	161.6	33.2	17.2	212.7	97.4	28.6	7.4	21.8	6.2
Poland	204.6	54.5	22.1	356.4	102.2	40.0	14.6	21.2	12.1
Portugal	155.6	25.5	22.4	184.9	44.4	62.0	9.1	19.8	7.7
Romania	179.7	41.5	18.8	557.9	194.1	49.5	16.6	21.6	17.8
Slovenia	201.9	43.2	26.2	234.9	67.4	36.4	11.5	27.4	8.8
Slovakia	201.7	38.6	30.3	465.0	280.5	49.9	13.3	22.1	13.3
Finland	137.0	26.0	13.3	224.0	128.8	22.3	6.9	19.8	5.0
Sweden	149.1	25.9	17.5	200.9	93.0	30.8	5.0	20.0	6.3
United Kingdom	178.1	41.1	17.8	188.7	93.0	73.7	5.3	26.8	5.9
Iceland	159.2	39.3	11.4	173.7	93.7	43.4	4.9	27.3	5.2
Norway	160.5	35.0	22.5	167.2	69.6	49.9	6.0	18.7	6.7
Switzerland	146.1	30.4	15.1	161.2	66.1	27.2	5.0	22.1	5.1
Croatia	212.6	49.4	28.6	402.7	157.1	33.7	15.0	25.8	9.8
FYR of Macedonia	170.0	41.7	18.1	573.9	92.2	37.8	6.0	23.9	13.4

Italy, Luxembourg, Malta, Sweden, the United Kingdom and Switzerland, 2007; Denmark, 2006; Belgium, 2005.
Malignant neoplasms.
Malignant neoplasm of larynx, trachea, bronchus and lung.

(4) Ischaemic heart diseases.



**Figure 3.6:** Causes of death - standardised death rate per 100 000 inhabitants, females, EU-27 (<sup>1</sup>) (2000=100)



Source: Eurostat (hlth\_cd\_asdr)





(1) Provisional; note the differences in the scales employed between the two parts of the figure; the figure is ranked on the average of male and female. (2) Malignant neoplasms of the larynx, trachea, bronchus and lung.





**Figure 3.8:** Deaths from ischaemic heart diseases - standardised death rate, 2008 (<sup>1</sup>) (per 100 000 inhabitants)

(!) EU-27, provisional; the figure is ranked on the average of male and female; Italy, Luxembourg, Malta, Sweden, the United Kingdom and Switzerland, 2007; Denmark, 2006; Belgium, 2005.

#### Source: Eurostat (tps00119)

Figure 3.9: Deaths from suicide - standardised death rate, 2008 (1) (per 100 000 inhabitants)



(!) EU-27, provisional; the figure is ranked on the average of male and female; Italy, Luxembourg, Malta, Sweden, the United Kingdom and Switzerland, 2007; Denmark, 2006; Belgium, 2005.

Source: Eurostat (tps00122)



**Table 3.2:** Causes of death - standardised death rate, 2008 (1)(per 100 000 inhabitants aged less than 65)

				Total				Fem	Females	
	Cancer (²)	Lung cancer ( <sup>3</sup> )	Colo- rectal cancer	Circula- tory disease	Heart disease (4)	Suicide (⁵)	Transport accidents	Breast cancer	Uterus cancer	
EU-27	73.9	19.2	6.4	46.8	20.4	9.2	8.0	13.8	4.3	
Belgium	73.5	21.8	5.7	37.6	16.5	16.5	10.4	17.7	3.0	
Bulgaria	95.1	25.5	9.1	143.1	38.1	8.1	13.0	15.3	9.8	
Czech Republic	85.1	20.3	9.4	64.0	31.1	10.8	9.7	10.6	5.4	
Denmark	77.6	21.1	7.2	35.3	13.4	8.8	5.4	15.8	3.0	
Germany	67.5	17.0	5.9	38.0	17.2	8.2	5.2	13.5	3.0	
Estonia	83.2	18.4	5.3	114.0	46.5	16.0	10.9	14.7	8.5	
Ireland	65.6	13.9	6.8	34.5	20.5	9.7	5.7	18.9	4.8	
Greece	61.5	19.4	3.6	46.6	28.0	2.6	13.5	11.0	2.5	
Spain	67.5	18.9	6.7	28.6	12.4	5.6	6.8	11.5	3.0	
France	75.0	20.7	5.4	25.6	8.9	13.5	6.8	14.3	3.3	
Italy	63.0	14.3	5.8	27.1	11.6	4.5	8.9	13.7	2.7	
Cyprus	44.3	9.2	3.0	40.9	25.3	4.6	10.1	13.6	3.4	
Latvia	95.6	21.3	7.5	157.0	77.4	19.4	15.6	17.1	9.2	
Lithuania	97.5	19.8	7.5	135.1	73.8	30.0	16.4	17.3	10.8	
Luxembourg	60.8	17.8	8.2	31.3	15.2	15.3	8.6	11.7	3.8	
Hungary	130.7	45.6	13.2	108.8	53.6	18.9	10.9	15.2	7.4	
Malta	58.1	10.5	6.7	34.1	18.9	5.7	3.0	19.1	6.1	
Netherlands	72.2	19.3	6.6	29.0	10.9	7.7	3.6	17.4	2.9	
Austria	65.2	17.0	5.3	30.5	16.5	10.5	6.7	11.5	3.3	
Poland	94.3	28.2	7.7	85.9	29.5	13.6	13.7	13.3	7.7	
Portugal	69.0	13.8	7.7	29.2	10.5	6.0	8.3	12.1	4.3	
Romania	100.3	25.9	7.7	118.4	51.0	9.8	15.7	13.6	13.9	
Slovenia	83.7	22.4	8.6	40.5	19.6	15.3	11.4	14.4	4.7	
Slovakia	93.4	19.9	11.2	90.4	46.6	9.6	12.7	12.0	7.2	
Finland	51.6	9.9	4.6	47.1	24.2	18.4	6.2	11.0	2.0	
Sweden	52.0	10.0	5.2	30.4	17.0	10.9	4.8	10.7	2.7	
United Kingdom	66.1	14.3	5.9	40.0	23.0	6.1	5.1	15.4	3.3	
Iceland	48.4	11.4	3.0	24.8	14.9	12.2	3.5	14.5	1.5	
Norway	57.2	13.4	7.0	26.6	13.5	10.2	5.7	10.2	3.1	
Switzerland	57.4	14.2	5.1	23.9	11.7	12.4	4.5	11.6	2.2	
Croatia	97.1	27.4	9.8	72.9	32.5	12.2	14.7	13.6	5.1	
FYR of Macedonia	83.5	23.7	7.1	98.8	32.7	5.4	4.9	14.4	9.2	

(1) EU-27, provisional; Italy, Luxembourg, Malta, Sweden, the United Kingdom and Switzerland, 2007; Denmark, 2006; Belgium, 2005.

(2) Malignant neoplasms.

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<sup>(3)</sup> Malignant neoplasm of larynx, trachea, bronchus and lung.

(4) Ischaemic heart diseases.

(<sup>5</sup>) Suicide and intentional self-harm.



**Figure 3.10:** Causes of death - standardised death rate per 100 000 inhabitants aged less than 65, EU-27 (<sup>1</sup>)



Source: Eurostat (hlth\_cd\_asdr)

## 3.3 Healthcare

This subchapter presents key statistics on monetary and non-monetary aspects of healthcare in the European Union (EU) and its Member States. The state of health of individuals and of the population in general is influenced by genetic and environmental factors, cultural and socio-economical conditions, as well as the healthcare services that are available. Healthcare systems are organised and financed in different ways across the EU Member States, but most Europeans would agree that universal access to good healthcare, at an affordable cost to both individuals and society at large, is a basic need.

Monetary and non-monetary statistics may be used to evaluate how a country's healthcare system responds to this basic need, through measuring financial, human and technical resources within the healthcare sector and the allocation of these resources between healthcare activities (for example, preventive and curative care), groups of healthcare providers (for example, hospitals and ambulatory centres), or healthcare professionals (for example, medical and paramedical staff). Combining these data with information on technical and managerial choices that are made in relation to healthcare provision (for example, the use of inpatient or outpatient care, or the average length of stays in hospital), it is possible to assess and measure the performance of healthcare systems.

## Main statistical findings

### Healthcare expenditure

Total current healthcare expenditure (both in relative and absolute terms) var-

ied significantly among the EU Member States in 2008 (2). As shown in Figure 3.11 the share of current healthcare expenditure exceeded 10 % of gross domestic product (GDP) in Germany and France (2007 data), which represented almost twice the share recorded in Romania, Cyprus and Estonia (below 6 % of GDP). The disparity was even bigger when comparing the level of healthcare spending per inhabitant, which varied from PPS 635 in Romania to more than PPS 4 280 in Luxembourg. Notwithstanding the differences in organising and financing healthcare systems, these comparisons suggest that individuals living in those Member States with a higher average level of income per capita generally spend more on purchasing healthcare goods and services.

# Public and private healthcare expenditure by financing agent

The mix of public and private funding reflects specific arrangements in healthcare financing systems across the EU Member States. Table 3.3 provides a breakdown of healthcare expenditure into public and private units that incur health expenditure. In 2008, public funding dominated the healthcare sector in the majority of EU Member States, the main exception being Cyprus, where public funding accounted for a 42 % share of total funding. Among the remaining Member States for which data are available, the share of public funding in current healthcare spending ranged from 56 % in Bulgaria to more than 80 % in Romania, the Netherlands, the Czech Republic, Sweden, Luxembourg and Denmark.

(2) Belgium, Denmark, France, the Netherlands, Austria and Finland, 2007; Latvia, Portugal and Slovakia, 2006.





Public financing of healthcare is conducted through a variety of funding paths. For example, social security accounted for three quarters or more of overall spending on healthcare in the Czech Republic and the Netherlands (77 %) in 2008. In contrast, Denmark and Sweden reported that government financing accounted for more than four fifths of their total current expenditure on healthcare.

Private expenditure on healthcare is often used as an indicator to measure the accessibility of healthcare systems. The major source of private funding in 2008 was direct household payments, referred to as 'out-of-pocket' expenditure, which in the Netherlands and France represented less than 7 % of current healthcare expenditure, a share that rose to over 40 % of overall spending on healthcare in Bulgaria, and to half of all healthcare expenditure in Cyprus. Private insurance generally represented a small share of healthcare financing among the Member States for which data are available; its relative share only exceeded 10 % in Slovenia and France.

## Healthcare expenditure by function

The functional patterns of healthcare expenditure presented in Table 3.4 show that in 2008 curative and rehabilitative services incurred more that 50 % of current healthcare expenditure in the majority of EU Member States, the exceptions being Slovakia, Romania and Hungary.

Medical goods delivered to outpatients was the second largest function, with average spending accounting for around one quarter of total current healthcare expenditure – although with a significant degree of variation, from 13 % in Luxembourg and Denmark up to more than one third of the total in Slovakia, Bulgaria and Hungary.

Services related to long-term nursing care accounted for less than 10 % of current healthcare expenditure in more than half of the Member States, but reached almost 20 % in Luxembourg and just over 21 % in Denmark. It should be noted that the relatively low share reported for many Member States could well be due to the main burden of long-term nursing care residing with family members with no payment being made for providing these services. In addition, limitations within the data compilation exercise also make it difficult to separate medical and social components of expenditure on long-term nursing care, leading to an inevitable impact on cross-country comparisons.

The proportion of current healthcare expenditure incurred by ancillary services such as laboratory testing or the transportation of patients varies significantly among EU Member States, ranging from 2.4 % in Belgium to 10 % in Estonia. Similarly, expenditure related to prevention and public health programmes exhibits large discrepancies between Member States. In both cases the figures are likely to provide an under-estimate of the true values, as it is likely that some of the expenditure is attributed to medical treatment and as such may be recorded under the heading of curative care. Expenditure on healthcare administration and health insurance was generally lower in those Member States with centralised social security systems or those Member States where private insurance plays a relatively restricted role, ranging from



less than 1.5 % of total current healthcare expenditure in Bulgaria, Portugal, Denmark, Hungary and Sweden, through to 7 % and more of expenditure in France and Belgium. In general, the expenditure associated with collective services reported under preventive programmes and the administration of healthcare systems did not surpass 10 % of overall current healthcare expenditure except in the Netherlands and Belgium.

# Healthcare expenditure by provider

The breakdown of current healthcare expenditure by provider is shown in Table 3.5. Hospitals generally accounted for the highest share of expenditure, ranging from 27 % in Slovakia to more than 46 % in Denmark, Estonia, and Sweden. The second most important category was that of ambulatory care providers, its share ranging from just over 16 % of total healthcare expenditure in Romania and Bulgaria to more than 30 % of the total in Germany, Finland, Cyprus and Portugal. The share of various retail establishments and other providers of medical goods varied considerably more - around threefold - from 11 % in Luxembourg and 13 % in Denmark, through a middle band of Member States where the share was between 16 % and 27 %, to 30 % or more of total healthcare provision in Lithuania, Hungary, Bulgaria and Slovakia. However, it should be borne in mind that healthcare providers classified under the same group do not necessarily perform the same set of activities. Hospitals, for example, may, in addition to inpatient services, offer outpatient, ancillary or other type of services.

## Non-expenditure data on healthcare

High demand for healthcare staff in some Member States may result in qualified resources moving from other countries. One of the key indicators for measuring healthcare staff is the total number of physicians (head count), expressed per 100 000 inhabitants. In this context, Eurostat gives preference to the concept of practising physicians (although data are not available for six Member States - being replaced by the number of professionally active physicians for Greece, France and Italy, and by the number of licensed physicians for Ireland, the Netherlands and Portugal) – see Table 3.6.

In 2008 the highest number of practising physicians per 100 000 inhabitants was recorded in Austria (458.1) followed by Lithuania (370.6) among the EU Member States, while Norway (398.1) recorded a ratio between these two figures. Between 1998 and 2008 the number of physicians per 100 000 inhabitants increased in the majority of EU Member States, although reductions were recorded in Lithuania and Poland. Nevertheless, the reduction of practising physicians in Poland may be explained by several breaks in the data series - for example, from 2004 the Polish data excludes private practices (thought to account for about 2 000 physicians).

The number of hospital beds per 100 000 inhabitants in 2008 ranged among those Member States for which data are available from 325 in Spain to 820 in Germany, with Turkey (244) below the Spanish level. During the ten years between 1998 and 2008, the number of hospital beds per 100 000 inhabitants fell in every



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Member State, except Malta (where the main general hospital was reconstructed). The largest reductions in the availability of hospital beds were recorded in the three Baltic Member States and in Bulgaria. The reduction in hospital bed numbers may reflect, among others, economic constraints, increased efficiency through the use of technical resources (for example, imaging equipment), a general shift from inpatient to outpatient operations, and shorter periods spent in hospital following an operation.

A closer look at the availability of hospital beds, broken down for curative care beds and psychiatric beds (see Table 3.7) shows a reduction in bed numbers between 1998 and 2008 in each of the Member States for which data are available, except for the number of curative care beds in Greece. The EU-27 averaged 379 curative care beds and 64 psychiatric care beds per 100 000 inhabitants in 2008.

In terms of healthcare activity, diseases of the circulatory system often accounted for the highest number of hospital discharges in 2008 – see Table 3.8. One third of the Member States for which data are available reported in excess of 3 000 discharges per 100 000 inhabitants for diseases of the circulatory system. The average length of a hospital stay was generally highest among those patients suffering from cancer or problems relating to the circulatory system (see Table 3.9).

### Data sources and availability

Eurostat, the Organisation for Economic Co-operation and Development (OECD) and the World Health Organization (WHO) have established a common framework for a joint healthcare data collection. Following this framework, EU Member States submit their data to Eurostat on the basis of a gentlemen's agreement. The data collected relates to:

- healthcare expenditure following the methodology of the system of health accounts (SHA);
- statistics on human and physical resources in healthcare – supplemented by additional Eurostat data on hospital activities (discharges and procedures).

### Healthcare expenditure

Healthcare data on expenditure are based on various surveys and administrative (register-based) data sources, as well as estimations made within the Member States, reflecting country-specific ways of organising healthcare and different reporting system for the collection of statistics pertaining to healthcare.

Total current healthcare expenditure quantifies the economic resources of both the public and private sectors dedicated to healthcare, with the exception of those related to capital investment. It reflects current expenditure of resident units on final consumption of goods and services directed at improving the health status of individuals and of the population.

The SHA provides a framework for interrelated classifications and tables relating to the international reporting of healthcare expenditure and its financing. The set of core SHA tables addresses three basic questions: i) who finances healthcare goods and services; ii) which healthcare



providers deliver them, and; iii) what kinds of healthcare goods and services are consumed. Consequently, the SHA is organised around a tri-dimensional system for the recording of health expenditure, by means of the international classification for health accounts (ICHA), defining:

- healthcare expenditure by financing agents (ICHA-HF) – which provides a breakdown of public and private units that directly pay providers for their provision of healthcare goods and services;
- healthcare expenditure by provider (ICHA-HP) – which classifies units contributing to the provision of healthcare goods and services such as hospitals, various outpatients settings, diagnosis centres or retailers of medical goods;
- healthcare expenditure by function (ICHA-HC) – which details the split in healthcare expenditure following the purpose of healthcare activities
  such as, health promotion, curing illnesses, rehabilitation or long-term care.

Data coverage is close to 100 % for the first-digit level of each of the three core classifications, but ranges between 75 % and 85 % at the second-digit level. However, it is possible that despite relatively high rates of coverage, there may be departures from the standard classifications. Expenditure reported under some of these ICHA categories may be under or overestimated and it is recommended to refer to specific country metadata before analysing the data.

## Non-expenditure data on healthcare

Non-expenditure healthcare data are mainly based on administrative national sources. However, a few countries compile this information from surveys. As a consequence, the information collected is not always comparable. Information on the non-expenditure component of healthcare can be divided into two broad groups of data:

- resource-related healthcare data on human, physical and technical resources, including staff (such as physicians, dentists, nursing and caring professionals, pharmacists and physiotherapists) and hospital beds;
- output-related data that focuses on hospital patients and their treatment(s), in particular for inpatients.

Hospitals are defined according to the classification of healthcare providers within the SHA; all public and private hospitals should be covered.

Data on healthcare staff, in the form of human resources available for providing healthcare services, are provided irrespective of the sector of employment (in other words, regardless of whether the personnel are independent, employed by a hospital, or any other healthcare provider). Three main concepts are used for health professionals: practising, professionally active and licensed. Practising physicians provide services directly to patients; professionally active physicians include those who practise as well as those working in administration and research with their medical education be-





ing a pre-requisite for the job they carry out; physicians licensed to practice are those entitled to work as physicians plus, for example, those who are retired.

Hospital bed numbers provide information on healthcare capacities, in other words on the maximum number of patients who can be treated by hospitals. Hospital beds (occupied or unoccupied) are those which are regularly maintained and staffed and immediately available for the care of admitted patients. This indicator should ideally cover beds in all hospitals, including general hospitals, mental health and substance abuse hospitals, and other specialty hospitals. The statistics should include public as well as private sector establishments - although some Member States provide data only for the public sector - for example, Denmark (psychiatric beds), Ireland (total and curative beds), Cyprus (curative and psychiatric beds) and the United Kingdom. Curative care (or acute care) beds are those that are available for curative care; these form a subgroup of total hospital beds.

Output-related indicators focus on hospital patients and cover the interaction between patients and healthcare systems, namely in the form of the treatment they receive. Data are available for a range of indicators including hospital discharges of inpatients and day cases by age, gender, and selected (groups of) diseases; the average length of stay of inpatients; or the medical procedures performed in hospitals. The number of hospital discharges is the most commonly used measure of the utilisation of hospital services. Discharges, rather than admissions, are used because hospital abstracts for inpatient care are based on information gathered at the time of discharge.

## Context

Health outcomes across the EU are strikingly different according to where you live, your ethnicity, gender and socioeconomic status. The EU promotes the coordination of national healthcare policies through an open method of coordination which places particular emphasis on the access to, and the quality and sustainability of healthcare. Some of the main objectives include: shorter waiting times; universal insurance coverage; affordable care; more patient-centred care and a higher use of outpatients; greater use of evidence-based medicine, effective prevention programmes, generic medicines, and simplified administrative procedures; and strengthening health promotion and disease prevention.

In the current economic climate, access to healthcare, the introduction of technological progress and greater patient choice is increasingly being considered against a background of financial sustainability. Many of the challenges facing governments across the EU are outlined in the European Commission's White paper, titled 'Together for health: a strategic approach for the EU 2008-2013' (COM(2007) 360).





### Figure 3.11: Current healthcare expenditure, 2008 (1)

(1) Countries are ranked on the current health expenditure (PPS per inhabitant); Ireland, Greece, Italy, Malta and the United Kingdom, not available. (2) 2007.

(<sup>3</sup>) 2006.

#### Source: Eurostat (hlth\_sha\_hf)

## **Figure 3.12:** Number of hospital beds, EU-27 (per 100 000 inhabitants)



Source: Eurostat (tps00046)



## Table 3.3: Healthcare expenditure by financing agent, 2008

(% of current health expenditure)

	General government excluding social security funds	Social security funds	Private insurance enterprises (including private social insurance)	Private household out-of- pocket expendi- ture	Non- profit insti- tutions serving house- holds	Corpora- tions (other than health insurance)	Rest of the world
Belgium (1)	12.4	62.8	5.6	19.0	0.3	0.0	0.0
Bulgaria	17.7	38.5	0.5	42.6	0.4	0.3	0.0
Czech Republic	5.0	77.1	0.2	16.1	1.2	0.4	0.0
Denmark (1)	83.8	0.0	1.7	14.4	0.1	0.0	0.0
Germany	7.1	70.2	9.7	12.3	0.4	0.4	0.0
Estonia	10.8	67.6	0.3	20.5	0.0	0.8	0.1
Ireland	:	:	:	:	:	:	:
Greece	:	:	:	:	:	:	:
Spain	67.3	4.8	5.8	21.5	0.6	0.0	0.0
France (1)	5.3	73.5	13.5	6.9	0.1	0.7	0.0
Italy	:	:	:	:	:	:	:
Cyprus	42.0	0.1	5.7	50.2	2.0	0.0	0.0
Latvia ( <sup>2</sup> )	61.5	0.0	2.6	35.6	0.3	0.0	0.0
Lithuania	10.0	61.4	0.5	28.0	0.0	0.1	0.0
Luxembourg	8.5	73.9	3.5	13.7	0.4	0.0	0.0
Hungary	10.0	60.8	2.2	24.5	1.7	0.9	0.0
Malta	:	:	:	:	:	:	:
Netherlands (1)	5.4	76.7	6.2	6.0	3.2	2.5	0.0
Austria (1)	30.5	47.0	4.8	16.3	1.3	0.1	0.0
Poland	7.6	64.5	0.6	24.0	1.1	2.1	0.0
Portugal ( <sup>2</sup> )	70.3	0.9	4.3	23.9	0.3	0.2	0.0
Romania	10.9	70.5	0.1	18.2	0.1	0.2	0.0
Slovenia	1.7	70.9	13.8	12.7	0.0	0.8	0.0
Slovakia ( <sup>2</sup> )	6.4	63.6	0.0	26.6	0.8	2.6	0.0
Finland (1)	59.0	15.4	2.2	20.0	1.2	2.1	0.0
Sweden	82.3	0.0	0.2	16.5	0.2	0.8	0.0
United Kingdom	:	:	:	:	:	:	:
Iceland	54.9	28.3	0.0	15.3	1.4	0.0	0.0
Norway (²)	69.8	13.6	0.0	16.5	0.0	0.2	0.0
Switzerland (1)	16.2	42.9	9.2	30.7	1.0	0.0	0.0
Australia (1)	69.2	0.0	8.3	19.1	0.0	3.4	0.0
Canada	68.1	1.5	13.5	15.5	0.0	1.5	0.0
Japan (1)	15.1	66.5	2.5	14.8	0.0	1.0	0.0
Rep. of Korea	12.2	45.1	4.6	37.2	0.7	0.2	0.0
New Zealand	70.4	10.1	4.8	13.9	0.9	0.0	0.0
United States (2)	46.4	:	36.8	13.1	3.5	0.3	0.0

(<sup>1</sup>) 2007. (<sup>2</sup>) 2006.

Source: Eurostat (hlth\_sha\_hf)



# **Table 3.4:** Healthcare expenditure by function, 2008(% of current health expenditure)

	Services of curative & rehab- ilitative care	Services of long-term nursing care	Ancillary services to health- care	Medical goods dispensed to out- patients	Preven- tion & public health services	Health admin- istration & health insurance	Not specified by kind
Belgium (1)	50.5	17.0	2.4	17.6	4.1	8.5	0.0
Bulgaria	53.6	0.1	3.6	36.8	4.3	1.0	0.6
Czech Republic	58.5	3.4	5.6	24.6	2.7	3.5	1.7
Denmark (1)	58.1	21.4	4.7	13.2	1.5	1.2	0.0
Germany	53.3	12.3	4.7	20.5	3.7	5.4	0.0
Estonia	55.8	4.2	10.1	24.9	2.8	2.3	0.0
Ireland	:	:	:	:	:	:	:
Greece	:	:	•	:	:	:	:
Spain	56.4	9.2	5.3	23.5	2.4	3.3	0.0
France (1)	53.7	10.8	5.2	21.2	2.0	7.1	0.0
Italy	:	:	:	:	:	:	:
Cyprus	59.3	2.5	9.5	23.9	0.7	4.2	0.0
Latvia (²)	52.9	3.5	8.4	26.0	3.1	6.1	0.0
Lithuania	53.4	7.4	5.6	29.9	1.4	2.3	0.0
Luxembourg	58.3	19.9	5.9	12.5	1.9	1.7	0.0
Hungary	48.9	4.0	4.5	36.5	4.0	1.3	1.0
Malta	:	:	:	:	:	:	:
Netherlands (1)	53.8	13.4	4.9	17.2	5.1	5.6	0.0
Austria (1)	60.0	13.2	3.1	18.1	1.8	3.7	0.0
Poland	57.7	5.6	5.9	26.9	2.4	1.7	0.0
Portugal ( <sup>2</sup> )	62.3	1.4	8.5	24.7	1.9	1.2	0.0
Romania	47.5	12.4	4.7	26.6	6.0	2.8	0.1
Slovenia	57.5	8.6	3.0	23.0	3.9	4.0	0.0
Slovakia ( <sup>2</sup> )	44.7	0.4	7.3	39.1	4.5	4.1	0.0
Finland (1)	59.0	12.1	3.0	17.8	5.8	2.3	0.0
Sweden	64.4	7.9	4.9	16.9	3.6	1.4	0.9
United Kingdom	:	:	:	:	:	:	:
Iceland	59.4	19.0	2.3	16.0	1.6	1.8	0.0
Norway ( <sup>2</sup> )	50.5	26.4	6.4	13.9	2.0	0.8	0.0
Switzerland (1)	57.7	19.4	3.3	12.3	2.3	5.0	0.0
Australia (1)	70.3	0.3	6.0	18.4	2.1	2.8	0.0
Canada	46.4	14.8	6.3	20.9	7.1	3.8	0.6
Japan (1)	57.9	15.1	0.7	21.5	2.4	2.4	0.0
Rep. of Korea	63.5	3.1	0.3	27.3	2.5	3.3	0.0
New Zealand	57.0	14.2	4.7	10.9	6.1	7.2	0.0
United States (2)	69.0	6.4	0.0	14.0	3.2	7.4	0.0

(<sup>1</sup>) 2007. (<sup>2</sup>) 2006.

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Source: Eurostat (hlth\_sha\_hc)



# **Table 3.5:** Healthcare expenditure by provider, 2008(% of current health expenditure)

	Hospitals	Nursing & residen- tial care facilities	Ambu- latory health- care	Retail sale & medical goods	Admin. of public health pro- grammes	General health admin. & insurance	Other (rest of economy)	Rest of the world
Belgium (1)	29.9	11.1	29.8	16.6	4.3	7.9	0.4	0.0
Bulgaria	41.0	0.8	16.7	36.9	1.8	1.0	1.7	0.0
Czech Republic	43.7	1.1	24.3	20.6	0.2	3.7	0.7	0.2
Denmark (1)	46.2	12.4	26.2	13.2	0.2	1.5	0.1	0.2
Germany	29.4	7.8	30.8	21.8	0.8	5.9	3.1	0.5
Estonia	46.5	2.7	21.0	24.9	2.5	2.3	0.0	0.2
Ireland	:	:	:	:	:	:	:	:
Greece	:	:	:	:	:	:	:	:
Spain	39.9	5.4	28.8	21.5	1.0	3.3	0.3	0.0
France (1)	35.5	6.8	27.4	21.9	0.5	7.1	0.8	0.0
Italy	:	:	:	:	:	:	:	:
Cyprus	41.9	2.5	33.4	18.8	0.2	1.9	0.0	1.2
Latvia (²)	41.2	2.8	26.7	24.6	1.4	3.2	0.1	0.0
Lithuania	37.1	1.5	22.8	29.9	0.9	2.5	5.4	0.1
Luxembourg	32.9	15.7	26.2	11.2	0.4	1.4	2.8	9.5
Hungary	33.1	3.5	21.1	36.5	2.7	1.2	1.8	0.2
Malta	:	:	:	:	:	:	:	:
Netherlands (1)	36.9	12.0	24.0	16.4	1.6	5.6	2.6	1.0
Austria (1)	38.8	7.6	24.3	18.1	0.7	4.0	6.4	0.2
Poland	34.5	1.3	29.6	26.5	1.7	1.7	4.8	0.1
Portugal ( <sup>2</sup> )	37.2	1.8	33.7	24.7	0.0	1.2	1.3	0.2
Romania	39.1	2.1	16.3	26.6	1.4	1.7	12.8	0.1
Slovenia	41.6	5.3	24.6	22.4	0.6	4.1	1.2	0.2
Slovakia ( <sup>2</sup> )	27.1	0.0	24.7	39.1	1.9	4.1	3.1	0.2
Finland (1)	35.9	8.5	31.5	18.3	1.4	1.3	3.1	0.0
Sweden	46.9	3.0	20.6	16.8	1.0	1.7	9.8	0.2
United Kingdom	:	:	:	:	:	:	:	:
lceland	40.6	11.5	27.8	16.0	1.6	1.8	0.0	0.8
Norway (²)	38.2	17.4	27.3	13.6	1.6	0.0	1.9	0.1
Switzerland (1)	35.1	17.2	32.1	9.1	0.0	6.5	0.0	0.0
Australia (1)	39.9	0.0	37.7	17.6	2.1	2.8	0.0	0.0
Canada	28.9	10.6	28.4	20.9	6.6	3.8	0.2	0.6
Japan (1)	48.0	3.1	27.7	16.4	2.4	2.4	0.0	0.0
Rep. of Korea	41.6	0.6	29.2	22.6	1.5	3.3	0.9	0.2
New Zealand	37.4	8.8	30.7	10.8	3.3	7.6	1.3	0.0
United States (2)	33.0	6.4	36.3	14.0	3.0	7.4	0.0	0.0

(<sup>1</sup>) 2007. (<sup>2</sup>) 2006.

Source: Eurostat (hlth\_sha\_hp)



## **Table 3.6:** Healthcare indicators (per 100 000 inhabitants)

	Practising physicians (1)		Hosp	ital beds	Hospital discharges of inpatients (excluding healthy new born babies)		
	1998 (²)	2008 ( <sup>3</sup> )	1998	2008 (4)	2000 (5)	2008 ( <sup>6</sup> )	
EU-27	:	:	666.3	561.9	:	:	
Belgium	373.1	293.2	787.5	660.1	16 252	15 741	
Bulgaria	346.0	361.3	843.5	650.8	:	21 665	
Czech Republic	303.1	352.7	793.7	715.8	16 799	20 624	
Denmark	286.2	341.0	454.8	357.8	16 316	16 498	
Germany	317.5	356.2	929.3	820.3	19 586	22 692	
Estonia	322.9	335.0	761.9	571.5	:	:	
Ireland	217.1	309.3	642.6	519.9	13 805	13 501	
Greece	412.0	599.8	485.7	478.4	:	:	
Spain	287.3	354.8	378.4	324.5	11 243	10 567	
France	327.1	332.3	832.5	684.8	18 397	16 075	
Italy	416.3	414.0	555.1	371.4	:	13 887	
Cyprus	252.0	285.6	455.9	377.2	6 795	7 500	
Latvia	275.2	298.6	965.5	638.3	:	20 290	
Lithuania	373.5	370.6	910.1	685.3	9 088	21 686	
Luxembourg	242.7	282.1	:	562.4	18 075	13 887	
Hungary	308.6	309.3	809.7	705.0	:	19 486	
Malta	:	303.9	559.8	481.9	:	9 512	
Netherlands	292.5	369.4	512.3	426.3	9 088	10 953	
Austria	377.2	468.2	819.0	769.2	:	27 539	
Poland	233.0	216.1	:	662.1	:	13 965	
Portugal	306.3	377.3	387.5	336.8	:	:	
Romania	188.2	221.5	731.6	657.4	:	22 495	
Slovenia	219.1	238.8	559.1	476.9	:	16 154	
Slovakia	:	300.0	803.7	655.0	19 876	18 174	
Finland	231.8	271.4	778.2	653.8	9 088	18 821	
Sweden	297.5	356.6	:	:	15 272	14 910	
United Kingdom	190.0	270.2	:	336.7	9 088	12 248	
Iceland	329.7	372.0	:	585.7	17 085	15 018	
Norway	272.2	398.1	392.8	354.0	15 409	17 214	
Switzerland	:	385.4	664.0	524.9	9 088	16 217	
Croatia	227.5	266.1	601.5	547.3	12 710	16 259	
FYR of Macedonia	219.3	253.5	516.0	516.0	:	9 876	
Turkey	102.9	158.2	:	243.9	:	:	

(1) Greece, France, Italy, the former Yugoslav Republic of Macedonia and Turkey, professionally active physicians; Ireland, Netherlands and Portugal, licensed physicians.

(2) Romania, 1999.

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(7) Spain, Latvia, Malta, Austria, Portugal, the United Kingdom and Switzerland, 2009; Denmark, Luxembourg, the Netherlands and Slovakia, 2007; Sweden and the former Yugoslav Republic of Macedonia, 2006.

(\*) Latvia and Malta, 2009; Ireland and Iceland, 2007; the former Yugoslav Republic of Macedonia, 2006.

(\*) The Czech Republic, the Netherlands, Finland, the United Kingdom and Switzerland, 2002; Lithuania, 2001

(\*) Belgium, the Czech Republic, Denmark, Italy, Cyprus, Luxembourg, Poland and the United Kingdom, 2007; Sweden, Iceland and the former Yugoslav Republic of Macedonia, 2006.

Source: Eurostat (hlth\_rs\_prs, tps00046 and hlth\_co\_disch2t)



## Table 3.7: Hospital beds (per 100 000 inhabitants)

	Curative care beds in hospitals			Psychiatric care beds in hospitals				
	1998	2003 ( <sup>1</sup> )	2008 ( <sup>2</sup> )	1998	2003 ( <sup>1</sup> )	2008 ( <sup>3</sup> )		
EU-27	471.8	416.6	379.5	80.7	71.4	63.5		
Belgium	485.8	451.7	425.2	259.6	248.0	180.3		
Bulgaria	:	484.3	499.8	72.8	64.4	67.3		
Czech Republic	610.3	556.4	505.7	113.3	112.6	104.5		
Denmark	375.9	342.5	299.2	78.9	71.4	58.7		
Germany	650.5	605.5	564.7	46.1	51.0	47.5		
Estonia	587.1	440.4	385.2	89.5	58.7	56.8		
Ireland	285.1	282.2	267.4	150.5	109.3	79.8		
Greece	380.9	382.2	396.1	104.8	88.1	82.4		
Spain	292.6	265.2	250.8	53.2	49.0	41.4		
France	424.0	375.9	347.6	114.1	95.3	88.8		
Italy	501.7	352.9	301.0	33.1	13.6	11.0		
Cyprus	400.2	398.7	351.1	55.7	32.4	26.1		
Latvia	673.2	555.7	516.1	198.9	155.7	154.4		
Lithuania	700.1	582.8	505.9	125.7	108.0	103.1		
Luxembourg	:	505.8	436.5	:	110.1	89.3		
Hungary	593.5	553.4	411.4	46.1	40.1	28.8		
Malta	383.9	338.6	275.9	175.9	142.0	167.8		
Netherlands	343.4	313.7	286.3	167.1	136.3	140.0		
Austria	635.2	590.7	562.2	80.0	71.5	77.6		
Poland	552.9	486.1	441.2	:	71.4	64.8		
Portugal	318.7	299.9	276.5	68.8	65.6	59.6		
Romania	525.1	452.3	451.0	88.6	76.3	80.4		
Slovenia	461.6	401.3	385.4	79.8	73.7	69.5		
Slovakia	588.9	509.1	486.7	92.6	89.8	80.9		
Finland	259.4	228.5	191.2	109.0	98.2	84.8		
Sweden	256.9	222.7	:	66.3	51.3	48.6		
United Kingdom	:	310.6	270.3	:	83.1	63.7		
Norway	320.6	292.0	250.9	72.2	113.3	92.0		
Switzerland	442.3	386.5	336.9	119.8	107.8	101.1		
Croatia	378.1	338.0	341.0	100.3	95.5	94.9		
FYR of Macedonia	335.7	318.1	:	73.4	67.1	:		
Turkey	:	202.1	235.4	:	5.3	6.2		

(<sup>1</sup>) Luxembourg, 2004.
(<sup>2</sup>) Ireland, 2007.
(<sup>3</sup>) Sweden, 2007.

Source: Eurostat (tps00168 and tps00047)



Table 3.8: Hospital discharges of inpatients by diagnosis (ISHMT - international shortlist for hospital morbidity tabulation), 2008 (per 100 000 inhabitants)

	Neoplasms (cancers)	Diseases of the circulatory system	Diseases of the respiratory system	Diseases of the digestive system	Pregnancy, childbirth & the puerperium	Injury, poisoning & certain other consequences of external causes
Belgium (1)	1 183.9	2 068.1	1 359.1	1 649.9	1 369.7	1 634.7
Bulgaria	1 502.8	3 479.6	3 033.9	1 967.8	1 964.6	1 283.5
Czech Republic (1)	1 775.4	3 086.8	1 397.8	1 811.3	1 596.2	1 677.8
Denmark (1)	1 396.1	2 068.8	1 468.5	1 352.4	1 220.8	1 502.9
Germany	2 4 4 4.1	3 463.1	1 400.1	2 156.0	1 091.8	2 186.5
Estonia	:	3 493.6	:	1 606.0	1 918.4	1 196.0
Ireland	856.2	1 180.0	1 305.5	1 204.6	2 773.0	1 276.8
Greece	:	:	:	:	•	:
Spain	927.9	1 316.4	1 133.4	1 254.6	1 393.0	889.9
France	1 131.7	1 865.1	967.0	1 571.1	1 540.5	1 338.3
Italy (1)	1 298.4	2 329.9	1 087.2	1 325.5	1 282.1	1 215.7
Cyprus (1)	518.6	869.9	763.0	730.8	408.9	1 019.9
Latvia	1 945.6	3 782.9	1 895.1	1 824.2	1 719.1	1 944.8
Lithuania	1 682.2	4 226.4	2 116.7	1 844.1	1 659.5	1 757.2
Luxembourg	1 560.0	2 172.3	1 347.7	1 509.6	1 397.5	1 234.2
Hungary	2 368.1	3 543.9	1 524.9	1 482.6	1 510.0	1 332.6
Malta	372.2	944.7	766.0	1 002.5	986.9	913.5
Netherlands	1 039.7	1 589.5	776.1	955.3	942.2	923.8
Austria	2 896.8	3 726.9	1 637.2	2 507.9	1 300.4	2 937.5
Poland (1)	1 403.1	2 329.2	1 288.8	1 269.3	1 377.8	1 048.6
Portugal	:	:	:	:	:	:
Romania	1 842.0	3 053.2	3 026.0	2 225.3	1 838.0	1 292.3
Slovenia	1 797.9	1 942.2	1 294.5	1 415.9	1 371.3	1 505.6
Slovakia	1 580.3	2 711.9	1 460.6	1 787.6	1 571.8	1 466.2
Finland	1 731.6	2 826.6	1 426.4	1 377.0	1 295.3	1 894.0
Sweden (2)	1 376.2	2 370.6	964.4	1 174.6	1 306.2	1 421.2
United Kingdom (1)	936.3	1 275.3	1 134.0	1 144.9	1 381.5	1 208.1
Iceland (1)	1 282.8	1 547.5	900.0	1 322.3	1 970.8	1 051.4
Norway	1 677.8	2 467.7	1 439.9	1 248.1	1 550.8	1 903.7
Switzerland	1 086.0	1 743.6	884.7	1 405.4	1 204.0	1 962.7
Croatia	1 934.6	2 031.7	1 077.0	1 162.6	1 406.9	1 230.9
FYR of Macedonia (2)	849.5	1 669.5	1 494.6	1 104.9	494.5	624.9

(<sup>1</sup>) 2007. (<sup>2</sup>) 2006.

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Source: Eurostat (hlth\_co\_disch2)



Table 3.9: Hospital discharges of inpatients by diagnosis (ISHMT - international shortlist for hospital morbidity tabulation), average length of stay, 2008 (days)

	Neoplasms (cancers)	Diseases of the circulatory system	Diseases of the respiratory system	Diseases of the digestive system	Pregnancy, childbirth & the puerperium	Injury, poisoning & certain other consequences of external causes
Belgium (1)	9.3	8.2	8.1	5.9	4.8	8.6
Bulgaria	6.9	5.5	7.3	5.8	4.4	5.7
Czech Republic (1)	9.9	13.8	9.1	7.6	5.3	10.4
Denmark (1)	6.4	5.4	5.4	5.0	3.4	5.1
Germany	10.1	10.2	8.7	7.2	4.7	9.0
Estonia	:	10.8	:	5.3	3.0	8.8
Ireland	11.2	9.7	7.1	6.3	2.8	5.8
Greece	:	:	:	:	:	:
Spain	9.3	8.2	7.1	5.8	3.1	8.4
France	7.1	6.7	7.0	5.0	4.7	5.3
Italy (1)	9.5	9.0	8.5	6.8	3.9	8.5
Cyprus (1)	8.9	6.4	5.2	5.1	5.4	5.8
Latvia	9.3	8.6	7.7	6.2	5.2	7.9
Lithuania	9.2	8.8	7.0	6.3	4.4	7.1
Luxembourg	9.3	7.9	6.3	5.8	4.8	7.9
Hungary	6.4	8.7	7.1	6.4	5.0	7.2
Malta	5.9	6.5	4.8	4.4	3.2	5.5
Netherlands	7.5	7.0	7.2	6.2	3.4	7.0
Austria	7.6	10.8	8.4	6.8	5.5	8.8
Poland (1)	7.6	7.9	8.3	6.0	5.2	6.5
Portugal	:	:	:	:	:	:
Romania	6.8	7.9	7.1	6.5	5.0	6.2
Slovenia	7.9	8.4	6.9	6.2	4.5	7.0
Slovakia	8.7	8.1	7.9	6.1	5.6	6.4
Finland	8.7	16.3	12.5	5.6	3.6	10.5
Sweden ( <sup>2</sup> )	7.9	6.5	5.6	4.9	2.9	6.2
United Kingdom (1)	8.9	10.6	7.7	6.3	2.5	8.6
Iceland (1)	7.3	6.9	6.4	4.0	2.6	6.7
Norway	6.6	4.9	6.1	4.5	3.4	4.6
Switzerland	9.7	7.8	7.4	6.2	5.0	6.7
Croatia	9.2	10.0	7.9	7.2	5.9	9.4
FYR of Macedonia (2)	10.2	7.3	7.6	5.9	3.4	8.1

(<sup>1</sup>) 2007. (<sup>2</sup>) 2006.

Source: Eurostat (hlth\_co\_inpst)



## 3.4 Health and safety at work

A safe, healthy working environment is a crucial factor in an individual's quality of life and is also a collective concern. Member State governments across the European Union (EU) recognise the social and economic benefits of better health and safety at work. This subchapter presents a selection of statistical findings concerning health and safety in Europe; it focuses on accidents at work, work-related health problems and occupational diseases.

## Main statistical findings

## **Accidents at work**

According to the labour force survey (LFS) ad-hoc module for 2007, 3.2 % of workers aged 15 to 64 in the EU-27 had an accident at work in the 12 months prior to the survey; this corresponded to approximately 6.9 million persons. Data concerning European statistics on accidents at work (ESAW) show that 2.9 % of workers had an accident at work with more than three days of sickness absence in 2007, while a total of 5 523 workers died in fatal accidents.

The LFS data shows that accidents at work occurred more often among men, younger workers, and workers with a low educational level. Highly-skilled manual workers and workers in the construction, manufacturing, as well as agriculture, hunting and forestry sectors were more often involved in accidents at work. Approximately 70 % of the non-fatal accidents at work resulted from loss of control, a fall, or body movement under stress. Wounds and superficial injuries as well as dislocations, sprains and strains were the most common types of injury. In fatal accidents, multiple injuries were most often registered.

According to the same LFS source, 72.3 % of accidents at work resulted in sick leave of at least one day and 21.7 % resulted in sick leave of at least one month. Men reported a higher propensity to be on sick leave than women, while older workers were more likely to take sick leave of one month or more.

It is estimated that accidents at work resulted in at least 83 million calendar days of sick leave in the EU-27 in 2007; this figure excludes workers that do not think they will return to work, nor does it include workers that were still on sick leave at the time of the survey.

#### Work-related health problems

In the EU-27, 8.1 % of those aged 15 to 64 that worked or had previously worked reported a work-related health problem in the 12 months prior to the survey for the LFS ad-hoc module in 2007; this was equivalent to approximately 23 million persons.

Musculoskeletal problems were most often reported as the main work-related health problem (59.8%), followed by stress, depression or anxiety (13.7%). The occurrence of work-related health



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problems generally increased with age, but the rate of increase slowed down for workers aged 55 to 64 years; this may be due to unhealthy workers leaving the workforce early.

Workers with a low level of education reported work-related health problems more often than their colleagues. In particular, such workers more often identified musculoskeletal health problems as their most serious work-related health problem, whereas persons with higher levels of education most often identified stress, depression or anxiety as their main work-related health problem.

Work-related health problems were more likely to occur in agriculture, hunting and forestry, or in mining and quarrying; among women, work-related health problems were also more likely for those working in the health and social work sector. Furthermore, manual workers more often reported work-related health problems than non-manual workers.

Half (50.0 %) of all persons with a workrelated health problem in the EU experienced some limitations in their ability to carry out day-to-day activities, and an additional 22.6 % experienced considerable limitations. Work-related health problems resulted in sick leave of at least one day in the past 12 months for 62.0 % of persons with a work-related health problem, and in sick leave of at least one month for 27.1 %.

It is estimated that work-related health problems resulted in at least 367 million calendar days of sick leave in the EU in 2007; this figure excludes persons that never expect to work again because of their work-related health problem.

#### **Occupational diseases**

According to European occupational diseases statistics (EODS), between 2001 and 2007, musculoskeletal diseases were the most common occupational diseases recognised by the authorities in European countries. Neurologic diseases, lung diseases, diseases of the sensory organs, and skin diseases were also frequently recorded. Men were registered more often with an occupational disease than women. Most men with an occupational disease worked in the manufacturing and construction sectors, whereas most women worked in the wholesale and retail trade sector or the health and social work sector. Approximately 25 % of recognised occupational diseases led to permanent incapacity to work.

## Data sources and availability

An accident at work is a discrete occurrence during the course of work which leads to physical or mental harm. The phrase 'in the course of work' means whilst engaged in an occupational activity or during the time spent at work. This includes cases of road traffic accidents in the course of work but excludes accidents during the journey between home and the workplace.

The labour force survey (LFS) ad-hoc module in 2007 provided data on selfreported occupational accidents in the 12 months prior to the survey, irrespective of whether these accidents resulted in absence from work.

European statistics on accidents at work (ESAW) include case-by-case data on occupational accidents with more than



three days of absence from work and fatal accidents. A fatal accident is defined as an accident which leads to the death of the victim within one year.

European occupational diseases statistics (EODS) contain harmonised data on occupational diseases from 2001 onwards. Some 22 Member States provide caseby-case data on occupational diseases, as recognised by national authorities. The EODS contains the number of newly recorded occupational diseases and fatal occupational diseases during the reference year. Since national compensation authorities approve the occupational origin of diseases, the concept of occupational diseases is dependent on national legislation and compensation practices.

## Context

Reliable, comparable, up-to-date statistical information is vital for setting policy objectives and adopting suitable policy measures: an accurate statistical picture of health and safety at work is critical for monitoring policy and identifying preventive needs.

The main principles governing the protection of workers' health and safety are laid down in the 1989 Framework Directive 89/391/EEC, the basic objective of which is to encourage improvements in occupational health and safety. All sectors of activity, both public and private, are covered by this legislation, which establishes the principle that the employer has a duty to ensure workers' safety and health in all aspects relating to work, while the worker has an obligation to follow the employer's health and safety instructions and report potential dangers.

In this field, the policy agenda of the European Commission is set out in a Communication ((2007) 62) which details a Community strategy for 2007-2012 on health and safety at work, outlining actions to make workplaces across the EU safer and healthier. It also sets a quantitative target of a 25 % reduction in accidents at work, to be achieved through various EU and national measures.

**Figure 3.13:** Workers reporting one or more accidental injuries at work, EU-27, 2007 (<sup>1</sup>) (% of male and female persons employed aged 15-64 years old)



(1) At work or in the course of work in their main job during the 12 months prior to the survey.

Source: Eurostat (hsw\_ac5)



**Figure 3.14:** Type of work-related health problem indicated as the most serious among persons with a work-related health problem, EU-27, 2007 (<sup>1</sup>) (%)



(<sup>1</sup>) Excluding France. Source: Eurostat (hsw\_pb5)