Respiratory diseases statistics

Statistics Explained

Data extracted in August 2020.
Planned article update: August 2021.

This article presents an overview of European Union (EU) statistics related to diseases of the respiratory system and focuses on the following aspects: deaths from diseases of the respiratory system and healthcare for diseases of the respiratory system.

The respiratory system is a series of organs that are responsible for breathing; the lungs are the primary organ of this system, which also includes the nasal passage, oral cavity, pharynx, larynx, trachea, bronchi and bronchioles. Diseases of the respiratory system are one of the main causes of death in the EU and include conditions such as chronic obstructive pulmonary disease, pneumonia or asthma. Note that the statistics presented in this article do not cover cancer of the respiratory system (such as lung cancer), which is treated in a separate article .

This article is one of a set of statistical articles concerning health status in the EU which forms part of an online publication on health statistics .

Deaths from diseases of the respiratory system

Diseases of the respiratory system accounted for 7.5 % of all deaths in the EU-27 in 2016

In 2016, there were 339 000 deaths in the EU-27 resulting from diseases of the respiratory system, equivalent to 7.5 % of all deaths. Table 1 shows that, in 2017, the proportion of deaths in Ireland from respiratory diseases was considerably higher than the EU-27 average, at 13.4 %, while respiratory diseases also accounted for at least 1 in 10 deaths in Spain, Denmark, Portugal, Belgium, Greece and Malta; among the non-member countries shown in Table 1, more than 1 in 10 deaths were from respiratory diseases in the United Kingdom, Liechtenstein, Turkey, Norway and Iceland.

Causes of death — diseases of the respiratory system, residents, 2017

	Number of deaths	Share of all deaths			Standardised death rates				
		Total	Males	Females	Total	Males	Females	Persons aged < 65 years	Persons aged ≥ 65 years
	(number)		(%)				(per 100 000 inhabitants)		
EU-27 (')	339 105	7.5	8.1	6.9	75.0	108.1	54.9	9.1	346.8
Belgium	12 263	11.3	12.1	10.5	108.6	153.9	81.8	9.3	518.8
Bulgaria	4 563	4.2	4.8	3.5	67.7	96.0	47.5	18.2	271.8
Czechia	8 075	7.3	7.8	6.7	90.9	129.2	67.5	11.8	417.2
Denmark	6 356	12.0	11.3	12.6	123.5	149.8	108.5	10.9	588.4
Germany	68 648	7.3	7.9	6.8	75.2	103.6	57.9	8.9	348.6
Estonia	558	3.6	4.5	2.8	43.2	83.0	25.7	6.8	193.5
Ireland	4 056	13.4	12.5	14.2	135.5	161.7	118.6	7.1	665.7
Greece	13 811	11.1	10.6	11.7	107.5	124.8	94.1	6.0	526.7
Spain	51 410	12.2	13.2	11.1	100.5	149.1	69.8	7.2	485.5
France (')	41 435	7.0	7.0	6.9	57.0	80.7	42.6	5.9	267.7
Croatia	3 142	5.9	6.5	5.3	82.8	125.1	60.4	6.6	397.4
Italy	53 233	8.2	9.0	7.5	70.0	103.2	51.5	4.1	342.1
Cyprus	590	9.8	10.4	9.0	116.3	149.5	92.9	4.3	578.6
Latvia	843	3.0	3.9	2.1	43.0	83.7	23.6	14.1	162.0
Lithuania	1 340	3.4	4.6	2.3	46.7	90.9	24.7	10.9	194.4
Luxembourg	306	7.5	8.3	6.7	71.1	106.0	52.1	5.5	342.2
Hungary	8 133	6.2	6.8	5.6	89.6	129.0	67.0	22.2	367.7
Malta	382	10.7	11.1	10.2	105.8	146.8	80.5	4.7	523.3
Netherlands	13 000	8.7	8.8	8.6	86.8	111.6	73.3	7.5	414.1
Austria	5 340	6.5	7.0	6.1	62.9	84.8	49.4	6.3	296.5
Poland	26 338	6.5	6.9	6.1	84.2	127.9	60.1	12.7	379.4
Portugal	12 814	11.7	11.8	11.5	116.2	165.7	87.9	7.7	563.9
Romania	15 553	6.0	7.1	4.8	87.3	129.7	57.6	26.0	340.4
Slovenia	1 294	6.4	6.3	6.4	66.8	101.2	50.8	3.0	330.1
Slovakia	3 684	6.9	7.3	6.4	95.8	142.1	70.1	15.1	428.8
Finland	2 086	3.9	4.7	3.1	36.8	58.0	23.9	4.1	171.5
Sweden	6 707	7.3	7.1	7.6	67.1	80.5	60.0	4.2	326.8
United Kingdom	83 195	13.6	13.5	13.8	136.0	165.4	116.8	13.1	643.1
Iceland	239	10.9	9.5	12.2	101.0	102.5	97.1	3.9	501.5
Liechtenstein	32	13.2	13.1	13.2	113.4	140.6	91.1	5.9	557.2
Norway	4 623	11.5	11.1	11.8	103.9	126.5	91.4	6.3	506.9
Switzerland	4 673	7.0	7.3	6.8	58.2	77.4	46.8	4.7	279.2
Serbia	5 376	5.2	5.9	4.5	81.6	110.4	61.2	14.3	359.5
Turkey	49 386	12.0	12.6	11.3	158.6	219.4	117.6	14.5	753.5

(') 2016.
Source: Eurostat (online data codes: hlth_cd_aro and hlth_cd_asdr2)

eurostat

Table 1: Causes of death — diseases of the respiratory system, residents, 2017Source: Eurostat (hlth_cd_aro) and (hlth_cd_asdr2)

A higher proportion of men than women who died in the EU-27 in 2016 did so from diseases of the respiratory system (8.1 % compared with 6.9 %). This situation was repeated in 2017 across most of the EU Member States and the difference was most pronounced in Lithuania, Romania (where the gender gap was 2.2 percentage points), Spain (2.1 points) and Latvia (1.9 points). By contrast, a higher proportion of deaths among women (rather than men) were attributed to diseases of the respiratory system in four Member States, with the largest gender gap in Ireland (1.7 points); an even larger gap with a higher share for women than for men was observed in Iceland (2.6 points).

Standardised death rates for respiratory diseases were consistently higher for men than for women

The EU-27's standardised death rate for diseases of the respiratory system was 75.0 deaths per 100 000 inhabitants in 2016; the death rate for men was 2.0 times as high as that for women. Standardised death rates for men were higher than those for women in 2017 in each of the EU Member States; this may, at least in part, be attributed to different smoking habits between the sexes or to occupational risks (for example, more men work(ed) in extractive industries such as coal mining). Death rates for men were at least three times as high as those for women in all three Baltic Member States , while elsewhere they were between 1.3 and 2.4 times as high. Towards the lower end of this range with standardised death rates for men for respiratory diseases that were 1.4 times as high as those for women were Denmark and Ireland, while the smallest gender differences (with the rates for men 1.3 times as high as the rates for women) were observed in Sweden and Greece. Among the non-member countries in Table 1, Iceland stood out with a rate for men than was only slightly greater than that for women.

Deaths in younger ages can be considered as premature. Indeed Table 1 also shows that standardised death rates for diseases of the respiratory system were particularly high at advanced ages, explaining concerns over,

for example the winter influenza epidemics. The EU-27's standardised death rate from respiratory diseases for those aged 65 years and over was 38 times as high as the standardised death rate for persons aged less than 65 years; this can be compared with the same ratio for all causes of death, where the death rate for those aged 65 years and over was 20 times as high.

A more detailed analysis of causes of death for diseases of the respiratory system is presented in Table 2. This shows that the main causes of death among respiratory diseases were lower respiratory diseases (chronic or other) and pneumonia, while standardised death rates for asthma and for influenza were considerably lower.

Standardised death rates — diseases of the respiratory system, residents, 2017
(per 100 000 male/female inhabitants)

	Influenza		Pneumonia		Chronic lower respiratory diseases		Asthma and status asthmaticus		Other lower respiratory diseases		Other diseases of the respiratory system	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
EU-27 (1)	1.1	0.8	31.5	17.2	47.4	21.0	1.0	1.4	46.5	19.6	28.1	16.0
Belgium	2.8	2.3	53.5	30.8	60.7	28.1	0.7	1.2	59.9	26.9	36.9	20.6
Bulgaria	0.3	0.1	29.3	15.5	27.1	9.6	0.4	0.4	26.7	9.2	39.4	22.4
Czechia	2.5	1.4	54.9	30.1	57.1	26.3	1.5	1.6	55.6	24.7	14.8	9.6
Denmark	1.5	1.1	51.4	27.9	78.5	68.3	1.6	1.8	77.0	66.5	18.4	11.2
Germany	1.8	1.0	30.5	17.0	53.1	31.4	0.9	1.2	52.2	30.2	18.3	8.5
Estonia	6.8	3.1	33.9	11.7	36.7	9.0	3.8	1.6	32.9	7.4	5.6	1.9
Ireland	1.5	2.4	43.0	35.3	63.3	45.5	1.0	2.5	62.3	43.0	53.9	35.4
Greece	1.0	0.5	11.2	7.8	35.2	18.0	0.1	0.2	35.1	17.8	77.5	67.7
Spain	2.7	2.0	28.4	14.5	58.2	13.4	1.0	2.8	57.2	10.6	59.9	39.8
France (1)	1.7	1.2	24.7	14.1	24.9	10.5	1.0	1.4	23.9	9.1	29.5	16.8
Croatia	4.0	1.4	37.2	22.9	79.8	34.5	3.2	2.6	76.6	31.9	4.2	1.6
Italy	1.0	0.8	24.6	13.9	53.7	23.0	0.5	0.7	53.2	22.3	23.9	13.8
Cyprus	2.0	0.5	17.9	13.6	40.6	15.5	2.8	4.4	37.8	11.1	89.0	63.3
Latvia	5.2	1.8	35.2	13.1	38.2	7.4	2.7	1.4	35.5	6.0	5.1	1.3
Lithuania	0.6	0.4	36.0	11.9	50.3	11.2	1.9	1.6	48.4	9.5	4.0	1.2
Luxembourg	1.2	0.3	22.9	13.0	59.1	29.3	0.6	0.4	58.6	29.0	22.8	9.5
Hungary	0.6	0.5	18.3	10.2	97.4	49.9	1.5	1.2	95.9	48.7	12.7	6.4
Malta	0.8	1.3	42.7	29.5	53.1	10.9	0.4	2.6	52.7	8.3	50.3	38.8
Netherlands	3.7	3.2	33.4	21.0	57.2	39.0	0.7	1.3	56.5	37.8	17.3	10.2
Austria	3.4	2.3	21.0	12.3	51.1	29.7	0.8	1.0	50.3	28.8	9.3	5.1
Poland	0.4	0.2	76.3	39.2	38.7	14.1	1.8	1.6	36.9	12.5	12.5	6.6
Portugal	1.3	0.8	70.9	40.7	41.9	15.1	1.1	1.1	40.8	14.0	51.6	31.3
Romania	0.2	0.1	56.7	28.3	58.0	20.5	1.5	1.3	56.5	19.2	14.8	8.7
Slovenia	3.9	2.6	42.8	25.4	42.3	16.5	1.1	1.6	41.3	14.9	12.2	6.4
Slovakia	0.1	0.1	86.9	47.2	38.5	14.3	1.2	1.0	37.2	13.3	16.6	8.5
Finland	5.9	3.9	1.9	1.4	38.2	14.5	1.1	1.7	37.2	12.8	12.0	4.1
Sweden	5.4	3.7	24.6	14.6	35.2	34.0	1.2	1.7	33.9	32.2	15.4	7.7
United Kingdom	1.2	1.0	58.9	42.4	69.6	53.3	1.7	2.9	67.9	50.4	35.7	20.1
Iceland (2)	6.9	6.8	37.5	35.3	49.2	50.5	0.7	0.8	49.2	49.7	8.9	4.5
Liechtenstein (3)	7.2	7.4	98.9	68.8	34.5	16.3	5.3	:	34.5	16.3	10.8	6.1
Norway	7.1	4.2	46.8	30.3	59.6	50.1	1.8	2.8	57.8	47.3	13.0	6.8
Switzerland	4.4	3.0	23.4	14.8	34.9	21.8	0.8	1.5	34.1	20.3	14.6	7.2
Serbia	0.9	0.3	29.8	17.5	61.8	31.1	5.6	5.0	56.2	26.1	18.0	12.3
Turkey	0.7	0.5	74.8	49.9	127.5	56.1	4.8	6.4	122.7	49.7	16.5	11.1

(1) 2016.
(2) Asthma and status asthmaticus, males: 2014.
(3) Influenza, females: 2014. Asthma and status asthmaticus, males: 2015. Other diseases of the respiratory system, males: 2016.
Source: Eurostat (online data code: hlth_cd_asdr2)

eurostat

Table 2: Standardised death rates — diseases of the respiratory system, residents, 2017(per 100 000 male/female inhabitants)Source: Eurostat (hlth_cd_asdr2)

In 2017, the highest standardised death rates for chronic lower respiratory diseases among the EU Member States were recorded in Denmark, Hungary, Ireland and Croatia, while the highest rates for pneumonia were registered in Slovakia, Poland and Portugal. Among the diseases with much lower mortality rates, Cyprus and Croatia recorded the highest standardised death rates for asthma and status asthmaticus, while Finland, Sweden and Estonia had the highest standardised death rates for influenza.

At a more detailed level, the standardised death rate for asthma was higher among women

EU-27 standardised death rates for men were, with the exception of asthma and status asthmaticus, usually higher than those for women for each of the causes of death presented in Table 2. Gender differences were most pronounced for other lower respiratory diseases and chronic lower respiratory diseases as the standardised death rates for men in the EU-27 were 2.4 and 2.3 times as high as the corresponding rates for women. For

most of these diseases, with the exception of asthma and status asthmaticus, standardised death rates for men were generally higher than for women in 2017 in all EU Member States: an exception was for influenza, for which the standardised death rates were higher for women (than for men) in Ireland and Malta.

The standardised death rate for asthma and status asthmaticus was higher for women (1.4 deaths per 100 000 female inhabitants) than the corresponding rate for men (1.0 deaths per 100 000 male inhabitants) in the EU-27 in 2016. This difference was greatest in Malta, where the female standardised death rate for asthma and status asthmaticus in 2017 was 6.9 times as high as that recorded for men, while the female rates were 2.8 and 2.4 times as high as the male rates in Spain and Ireland respectively.

Self-reporting of respiratory diseases

The data presented in Figures 1 and 2 are derived from the second wave of the European health interview survey (EHIS) which was conducted between 2013 and 2015 and which covers persons aged 15 years and over. The survey included questions on self-assessment of an individual's health and data on respiratory diseases, which are available for all EU Member States, the United Kingdom, Iceland, Norway and Turkey. The next wave of the survey was conducted in 2019 and it will be run at regular five-year intervals thereafter.

Lithuanians reported the highest prevalence of chronic lower respiratory diseases other than asthma ...

Chronic lower respiratory diseases (excluding asthma) cover a collection of lung diseases that include chronic bronchitis, emphysema and other chronic obstructive pulmonary diseases; the main cause of these diseases is smoking. Patients with chronic lower respiratory diseases have difficulties in breathing, as the walls of the airways to their lungs are damaged, scarred and narrowed (airflow obstruction).

In 2014, some 4.3 % of the EU-27 population stated that they had some form of chronic lower respiratory disease (other than asthma) diagnosed by a medical doctor (see Figure 1). Lithuania (6.1 %) recorded the highest share among the EU Member States, followed by Portugal, France, Luxembourg, the Netherlands, Germany and Italy — each with shares above 5.0 %. At 7.7 %, the share in Turkey was considerably higher than in any of the EU Member States. By contrast, less than 2.0 % of the population in Malta and Sweden declared that they suffered from chronic lower respiratory diseases (other than asthma).

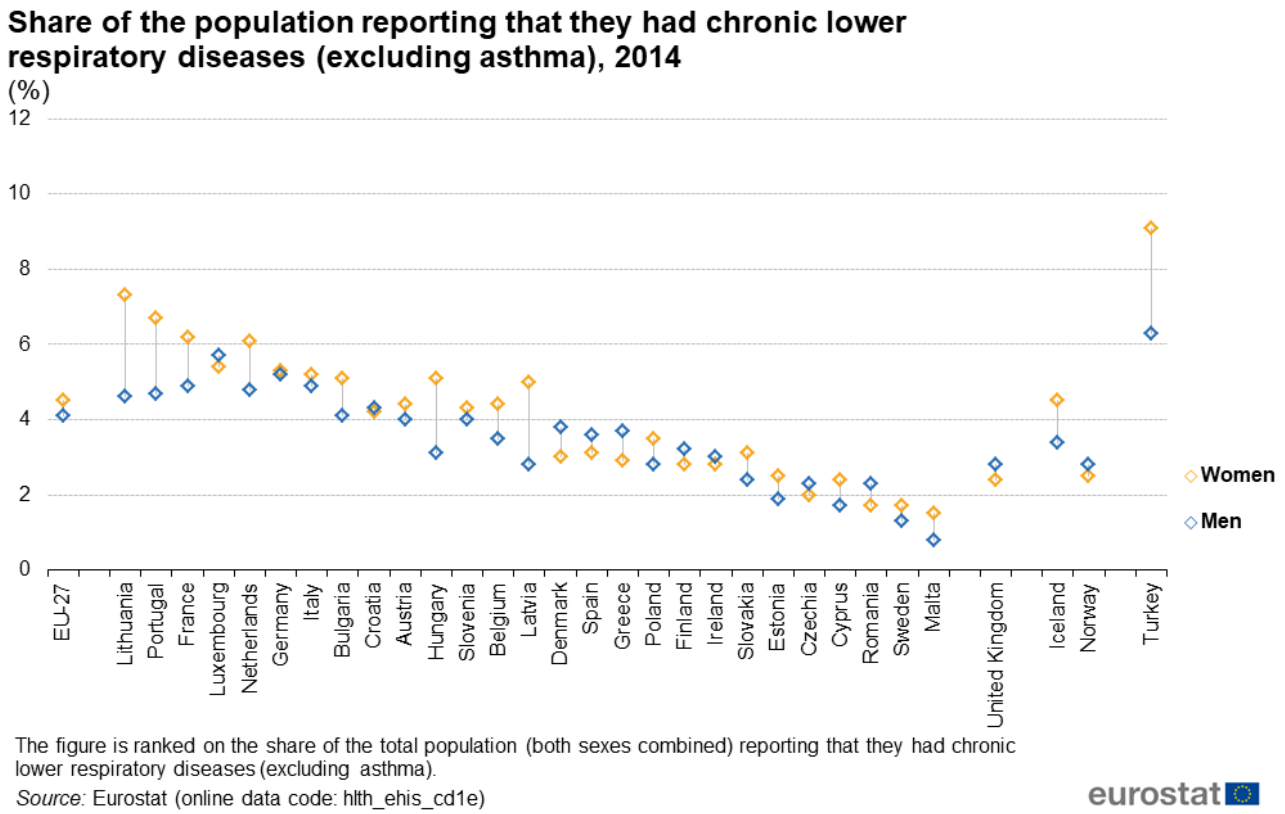


Figure 1: Share of the population reporting that they had chronic lower respiratory diseases (excluding asthma), 2014(%)Source: Eurostat (hlth_ehis_cd1e)

An analysis by sex reveals that women were usually more likely to report that they had chronic lower respiratory diseases than men. Across the EU-27, 4.5 % of women reported such an illness, compared with 4.1 % of men. This gender difference was particularly pronounced in Lithuania, where the gap between the sexes was 2.7 percentage points and where the highest share of the female population (7.3 %) reported that they suffered from a chronic lower respiratory disease (other than asthma); the gender gap was slightly higher in Turkey (2.8 points). By contrast, the highest share among men was recorded in Luxembourg (5.7 %) where, as in a further eight EU Member States, a greater share of men (compared with women) reported that they had a chronic lower respiratory disease (other than asthma).

. . . while the prevalence of asthma was highest in Finland

Asthma is a chronic inflammation of the airways characterised by reversible airflow obstruction and bronchospasm that causes coughing, wheezing, chest tightness or a shortness of breath. It may result from a range of triggers, which include (among others): pollution, tobacco smoke, solvents, pollens, cold air or strenuous exercise.

Within the EU-27, some 5.4 % of the adult population reported that they suffered from asthma. The highest share of self-reported asthma among the EU Member States was recorded in Finland (9.2 %), where 11.0 % of all women and 7.2 % of all men stated that they had asthma (see Figure 2). The next highest overall shares were in Ireland, France and Sweden.

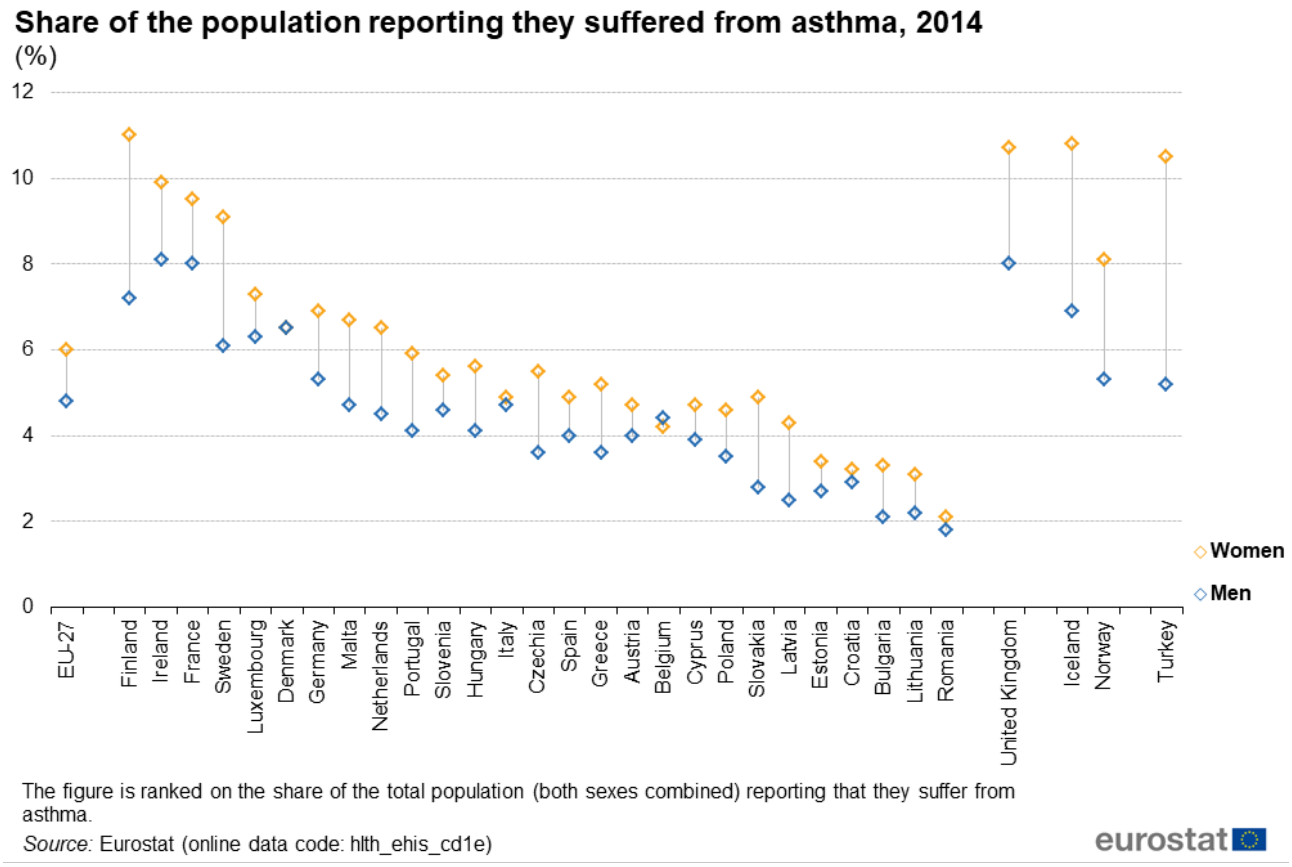


Figure 2: Share of the population reporting they suffered from asthma, 2014(%)Source: Eurostat (hlth_ehis_cd1e)

Within the EU-27, the share of women reporting that they suffered from asthma was 6.0 %, which was 1.2 percentage points higher than the corresponding share recorded among men. A closer analysis reveals that a higher proportion of women (than men) declared they had asthma in all but two of the EU Member States: the share (4.4 %) of men in Belgium who declared they had asthma was 0.2 percentage points higher than the share for Belgian women, while in Denmark the shares for both sexes were equal (6.5 %). By contrast, a much higher proportion of women (than men) reported they had asthma in Finland, Sweden, Slovakia, Malta and the Netherlands (shares for women were at least 2.0 percentage points higher than those for men). The share of women suffering from asthma was also considerably higher than that for men in Turkey (5.3 percentage points difference), as well as in Iceland (3.9 points), Norway (2.8 points) and the United Kingdom (2.7 points).

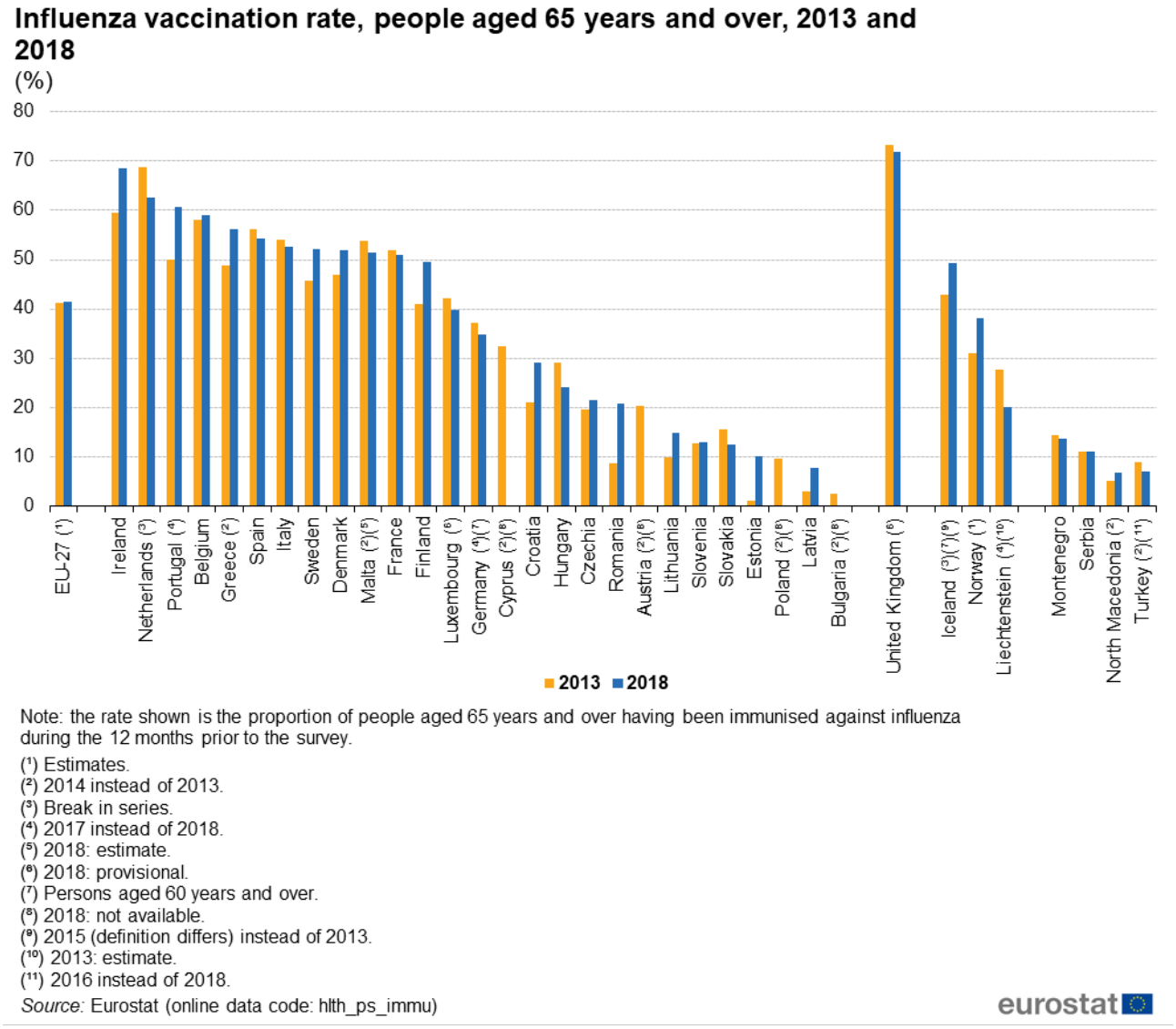
Respiratory healthcare

Influenza (International Statistical Classification of Diseases and Related Health Problems (ICD) codes J09-J11) is an annual, seasonal infectious disease caused by the influenza virus; it affects Europe in the winter. The majority of people who die from influenza are aged 65 years or over and face complications based on chronic diseases such as cardiovascular diseases or chronic lung diseases. During an influenza epidemic, there may be significant costs for health services (associated with caring for those who fall sick) and for businesses in general (lost production as a result of time taken off work).

More than three fifths of the elderly population of Ireland, the Netherlands and Portugal were vaccinated against influenza

It may be argued that many of the deaths and some of the costs associated with influenza epidemics could be avoided through a wider uptake of influenza vaccinations. Among the EU Member States there are a range of different policies with respect to making vaccines available to the general public— often they are specifically targeted at groups of older people.

Figure 3 shows the take-up of vaccinations against influenza among people aged 65 years or over. In 14 of the 23 EU Member States for which data are available (no comparison for Bulgaria, Cyprus, Austria and Poland) there was a higher share of the elderly vaccinated against influenza in 2018 than there was in 2013, while in the remainder the share was higher in 2013. The biggest fall was recorded in the Netherlands (note that there is a break in series), down 6.1 percentage points. By contrast, Romania and Portugal recorded a considerably higher proportion of people aged 65 years or over who were vaccinated against influenza in 2018 (2017 for Portugal) than in 2013, up by more than 10.0 percentage points.



Note: the rate shown is the proportion of people aged 65 years and over having been immunised against influenza during the 12 months prior to the survey.

(1) Estimates.
(2) 2014 instead of 2013.
(3) Break in series.
(4) 2017 instead of 2018.
(5) 2018: estimate.
(6) 2018: provisional.
(7) Persons aged 60 years and over.
(8) 2018: not available.
(9) 2015 (definition differs) instead of 2013.
(10) 2013: estimate.
(11) 2016 instead of 2018.

Source: Eurostat (online data code: hlth_ps_immu)

eurostat

Figure 3: Influenza vaccination rate, people aged 65 years and over, 2013 and 2018(%)Source: Eurostat (hlth_ps_immu)

Figure 3 also shows considerable differences between EU Member States in relation to the overall uptake of influenza vaccinations in the most recent year, with more than three fifths of the elderly vaccinated in Portugal (60.8 %; 2017 data), the Netherlands (62.7 %) and Ireland (68.5 %), while less than 10 % of the elderly population was vaccinated in Latvia (7.7 %).

In 2018, approximately 5.9 million in-patients with diseases of the respiratory system were discharged from EU hospitals

Across the EU in 2018 (2017 data for Germany and Malta; 2016 data for Denmark and Luxembourg; 2015 data for Portugal; no recent data for Greece), in-patients with diseases of the respiratory system (codes J00-J99) spent a total of 43.6 million days in hospital. By far the highest number of in-patient days was spent in

German hospitals (24.2 % of the EU total; 2017 data), while Italy (13.2 %), France (11.4 %) and Spain (10.5 %) were the only other EU Member States to record double-digit shares.

Around 5.9 million in-patients with diseases of the respiratory system were discharged from EU hospitals in 2018 (2017 data for Germany and Malta; 2016 data for Denmark and Luxembourg; 2015 data for Portugal; no recent data for Greece). Discharges of in-patients treated for respiratory diseases accounted for 13.0 % of the total number of hospital in-patient discharges in Spain, while these diseases accounted for a share of at least 10.0 % of all in-patient discharges in Ireland, Romania, Latvia and Lithuania. Among the enlargement countries , this share was as high as 12.7 % (2016 data) in Turkey and 11.5 % in Montenegro; in the United Kingdom it was also 11.5 % (2016 data). By contrast, respiratory diseases accounted for a relatively low proportion of the total number of in-patient discharges in Croatia and France (both 5.9 %), while comparatively low shares were also recorded in two of the EFTA countries: 6.3 % in Switzerland and 5.4 % (2017 data) in Iceland.

Bulgaria had highest number of in-patient discharges per 100 000 inhabitants

Relative to population size, Bulgaria, Romania and Lithuania recorded the highest number of discharges among those treated for diseases of the respiratory system in 2018 (see Figure 4): 2 200 per 100 000 inhabitants in Lithuania, 2 300 per 100 000 inhabitants in Romania and 3 200 per 100 000 inhabitants in Bulgaria. Portugal (2015 data), Cyprus and the Netherlands had by far the lowest in-patient discharge rates for diseases of the respiratory system, less than 800 per 100 000 inhabitants, while Croatia and Sweden were the only other EU Member States to record ratios that were below 1 000 discharges per 100 000 inhabitants. Among the EFTA countries, Liechtenstein and Iceland also reported very low discharge rates for in-patients with respiratory diseases, while among the enlargement countries the rate was relatively high in Turkey (2016 data).

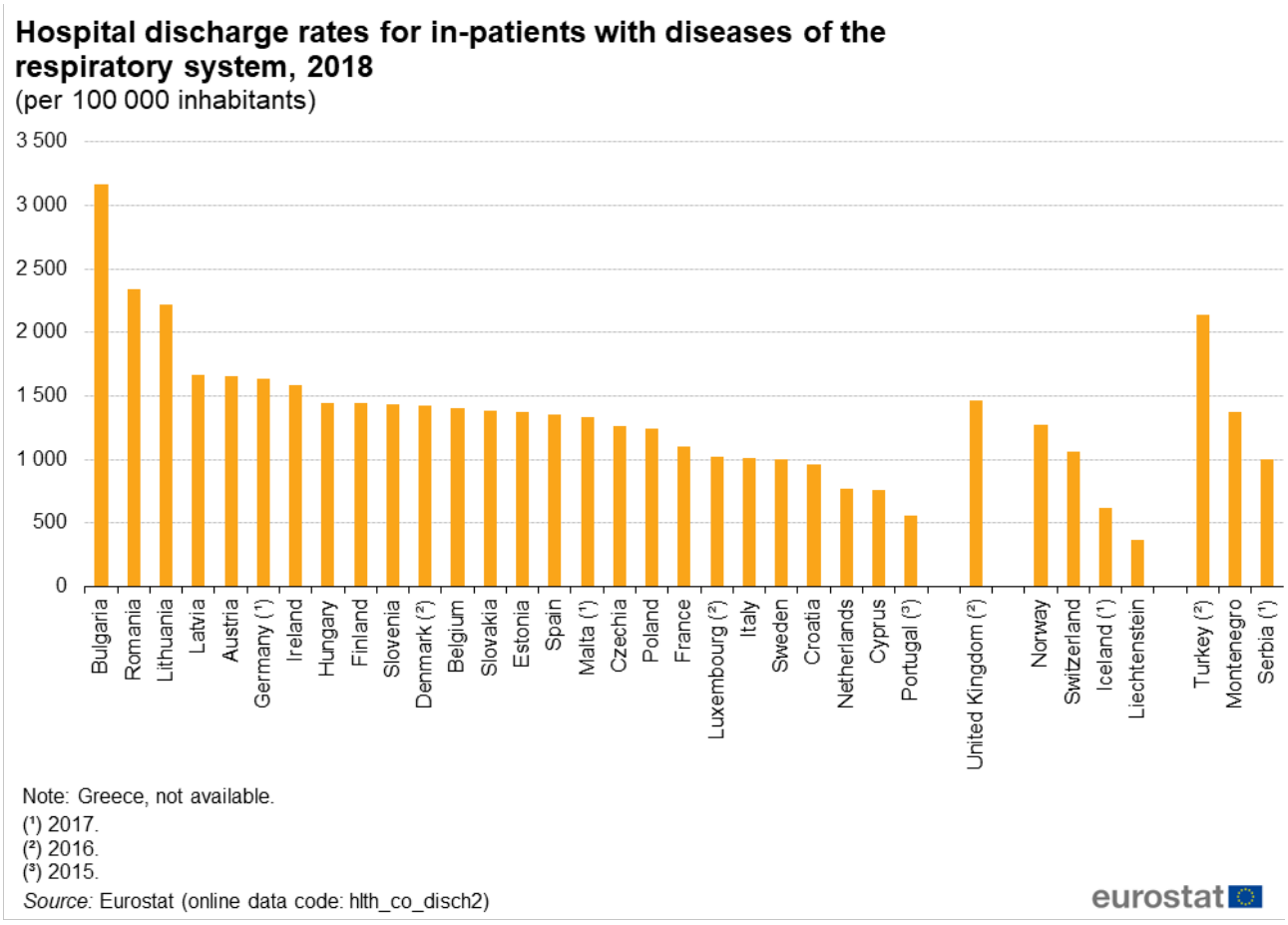


Figure 4: Hospital discharge rates for in-patients with diseases of the respiratory system, 2018(per 100 000 inhabitants)Source: Eurostat (hlth_co_disch2)

The length of hospital stays for in-patients with diseases of the respiratory system was generally

close to the average for all types of disease

Table 3 presents an analysis of the average length of hospital stays for in-patients treated for a respiratory disease in 2013 and 2018. The average hospital stay in 2018 ranged in length from 5.2 days in Sweden up to 10.3 days in Czechia. In Latvia and France, the average length of a hospital stay for those treated for a disease of the respiratory system was 2.3 days less than the average for all diseases, while it was 1.9 days shorter in Estonia and 1.7 days shorter in Luxembourg. Aside from these two Member States, the average length of a hospital stay due to a disease of the respiratory system was similar to the average for all diseases, either shorter or longer by at most 1.5 days.

In-patient average length of stay for respiratory diseases, 2013 and 2018
(days)

	Diseases of the respiratory system		of which: Pneumonia		Acute upper respiratory infections and influenza		Other acute lower respiratory diseases		Asthma and status asthmaticus		Other diseases of upper respiratory tract	
	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018
Belgium	7.8	7.5	10.7	10.2	3.4	4.2	5.6	5.2	5.1	4.9	1.8	1.8
Bulgaria	6.8	6.2	6.9	6.4	4.5	4.0	6.3	5.9	6.2	6.1	4.0	3.3
Czechia	9.0	10.3	12.0	12.1	4.6	5.0	7.6	8.7	11.7	14.2	6.0	5.7
Denmark (1)	5.7	5.4	6.7	6.2	2.1	2.1	3.7	3.2	2.4	2.5	1.7	1.6
Germany (2)	8.1	7.8	9.9	9.5	4.2	4.3	5.9	5.7	13.9	13.7	4.2	3.7
Estonia	5.0	5.4	9.1	9.8	:	:	:	:	5.9	7.0	:	:
Ireland	6.4	6.8	10.1	10.5	2.0	3.3	5.9	6.2	2.8	2.7	2.3	2.1
Greece	5.8	:	8.1	:	4.1	:	6.5	:	4.8	:	2.5	:
Spain	6.7	7.2	8.3	8.4	3.6	6.2	5.3	6.4	5.7	6.0	1.9	2.1
France	7.1	6.8	9.1	8.3	3.0	4.7	5.3	4.9	3.5	3.2	2.2	2.1
Croatia	7.9	7.6	10.0	9.3	5.0	4.9	5.7	5.2	11.6	11.9	4.9	3.6
Italy	9.0	9.4	10.4	10.5	3.9	4.6	5.8	6.1	5.0	5.4	2.6	2.4
Cyprus	5.0	5.3	6.0	6.3	2.6	3.2	5.8	5.6	4.7	4.0	3.7	3.6
Latvia	6.1	6.1	8.4	8.3	4.3	4.3	5.6	5.2	5.9	5.9	3.8	2.8
Lithuania	6.7	6.4	9.4	9.3	4.3	4.3	5.9	5.7	7.8	8.3	3.8	3.1
Luxembourg (1)	7.4	7.2	10.5	10.3	3.0	3.5	7.0	6.0	5.8	5.6	2.5	2.3
Hungary	8.5	9.0	12.3	12.6	3.3	3.1	5.3	6.2	10.4	12.2	2.7	2.2
Malta (2)	7.0	7.2	8.6	9.6	3.0	3.0	8.4	9.4	5.2	4.5	2.0	1.8
Netherlands	5.8	5.7	7.6	6.9	4.1	4.8	4.7	4.2	4.4	4.0	1.7	1.8
Austria	7.5	7.6	10.4	9.7	3.6	4.7	5.0	5.0	9.4	11.6	3.3	3.0
Poland	6.8	6.8	8.8	8.6	4.1	4.0	6.0	5.7	7.1	7.7	3.2	3.1
Portugal	8.2	:	13.4	:	5.6	:	7.5	:	5.8	:	2.9	:
Romania	6.8	6.7	7.4	7.1	4.8	4.4	5.6	5.3	7.6	7.9	5.1	4.4
Slovenia	6.4	6.8	8.9	9.2	3.0	3.7	4.8	5.0	6.1	6.0	3.3	3.1
Slovakia (3)	7.5	7.3	9.0	8.9	4.2	3.8	6.2	6.1	12.0	11.4	4.9	4.7
Finland	9.0	6.2	11.6	7.1	3.7	4.7	4.7	3.9	6.4	5.1	2.0	2.2
Sweden	5.5	5.2	6.3	5.8	3.5	4.0	4.0	3.8	2.7	2.7	2.3	2.6
United Kingdom (1)	7.5	7.3	11.4	10.4	1.8	2.5	6.0	5.2	3.4	3.4	1.9	2.2
Iceland (2)(3)	7.8	7.1	8.0	7.2	3.3	4.9	3.9	4.3	4.6	3.7	1.9	2.0
Liechtenstein (4)	8.8	8.1	8.9	8.9	6.1	4.8	:	7.4	5.0	4.0	1.3	1.0
Norway	5.5	4.9	6.2	5.7	2.6	3.1	3.3	3.2	6.7	4.9	1.9	1.9
Switzerland	7.1	6.7	9.5	8.7	3.7	5.1	4.3	4.0	10.8	7.4	2.5	2.4
Montenegro (4)	8.3	7.7	10.8	10.2	4.8	4.3	5.8	5.3	11.2	11.1	4.6	4.3
Serbia (3)	9.1	9.1	10.3	10.5	5.2	5.6	6.9	6.6	9.4	9.6	5.4	4.7
Turkey (1)(3)	5.5	5.6	7.3	7.6	2.9	2.5	4.5	4.5	6.9	7.5	2.5	2.2

(1) 2016 instead of 2018.
(2) 2017 instead of 2018.
(3) 2014 instead of 2013.
(4) 2015 instead of 2013.
Source: Eurostat (online data code: hlth_co_inpst)

eurostat

Table 3: In-patient average length of stay for respiratory diseases, 2013 and 2018(days)Source: Eurostat (hlth_co_inpst)

Among the 25 EU Member States for which recent data are available (no recent data for Greece or Portugal), the average length of a hospital stay for in-patients treated for a disease of the respiratory system fell between 2013 and 2018 in a small majority (13 out of 25), while in Latvia and Poland there was no change. The average time spent in hospital for in-patients treated for a disease of the respiratory system fell by 2.8 days in Finland. By contrast, Czechia recorded the largest increase in the average time spent in hospital for these diseases (up 1.3 days), while nine other Member States reported increases of 0.1 to 0.5 days.

The remainder of Table 3 provides a more detailed analysis of the average length of hospital stays for in-patients diagnosed with five different types of respiratory diseases. On average, in-patients with pneumonia (codes J12-J18) and with asthma and status asthmaticus (codes J45-J46) spent the highest number of days

in hospital. These figures are of interest, insofar as pneumonia was one of the leading causes of death among respiratory diseases, in contrast to asthma, which has a death rate that was relatively close to zero. The average stay in hospital for in-patients being treated for asthma varied considerably across the EU Member States, from highs of 14.2 days in Czechia and 13.7 days in Germany (2017 data) to less than 3.0 days in Ireland, Sweden and Denmark (2016 data).

Source data for tables and graphs

- Respiratory diseases: tables and figures

Data sources

Key concepts

An in-patient is a patient who is formally admitted (or 'hospitalised') to an institution for treatment and/or care and stays for a minimum of one night or more than 24 hours in the hospital or other institution providing in-patient care. An in-patient or day care patient is discharged from hospital when formally released after a procedure or course of treatment (episode of care). A discharge may occur because of the finalisation of treatment, signing out against medical advice, transfer to another healthcare institution, or because of death.

The number of deaths from a particular cause of death can be expressed relative to the size of the population. A standardised (rather than crude) death rate can be compiled which is independent of the age and sex structure of a population: this is done as most causes of death vary significantly by age and according to sex and the standardisation facilitates comparisons of rates over time and between countries.

Healthcare resources and activities

Statistics on healthcare resources (such as personnel and medical equipment) and healthcare activities (such as information on surgical operations and procedures and hospital discharges) are documented in this background article which provides information on the scope of the data, its legal basis, the methodology employed, as well as related concepts and definitions.

For hospital discharges and the length of stay in hospitals, the International Shortlist for Hospital Morbidity Tabulation (ISHMT) is used to classify data from 2000 onwards; Chapter X covers diseases of the respiratory system:

- Acute upper respiratory infections and influenza (1001);
- Pneumonia (1002);
- Other acute lower respiratory infections (1003);
- Chronic diseases of the tonsils and adenoids (1004);
- Other diseases of upper respiratory tract (1005);
- Chronic obstructive pulmonary disease and bronchiectasis (1006);
- Asthma (1007);
- Other diseases of the respiratory system (1008).

For country specific notes on this data collection, please refer to this background information document .

Health status

Self-reported statistics covering the health status of the population for a range of chronic diseases is provided by the European health interview survey (EHIS). This source is documented in more detail in this background article which provides information on the scope of the data, its legal basis, the methodology employed, as well as related concepts and definitions. The data presented in this article refer to the share of the population aged 15 years or over reporting to have been diagnosed by a medical doctor with chronic bronchitis, chronic obstructive pulmonary disease, emphysema, or asthma (allergic asthma included) which occurred during the 12 months prior to the survey.

Causes of death

Statistics on causes of death provide information on mortality patterns, supplying information on developments over time in the underlying causes of death. This source is documented in more detail in this background article which provides information on the scope of the data, its legal basis, the methodology employed, as well as related concepts and definitions.

Causes of death are classified according to the European shortlist (86 causes), which is based on the International Statistical Classification of Diseases and Related Health Problems (ICD) . Chapter X of the ICD covers diseases of the respiratory system:

- J00-J06 Acute upper respiratory infections;
- J09-J18 Influenza and pneumonia;
- J20-J22 Other acute lower respiratory infections;
- J30-J39 Other diseases of upper respiratory tract;
- J40-J47 Chronic lower respiratory diseases;
- J60-J70 Lung diseases due to external agents;
- J80-J84 Other respiratory diseases principally affecting the interstitium;
- J85-J86 Suppurative and necrotic conditions of lower respiratory tract;
- J90-J94 Other diseases of pleura;
- J95-J99 Other diseases of the respiratory system.

For country specific notes on this data collection, please refer to this background information document .

Symbols

Note on tables:

- a colon ':' is used to show where data are not available;
- a dash '–' is used to show where data are not applicable/relevant.

Context

There is a wide range of factors that play a role in affecting the health of a person's respiratory system. Most of these are linked to lifestyle or environmental factors, such as smoking or pollution. Indeed, smoking tobacco is the main cause of lung disease in Europe (note that the data presented in this article do not cover cancer), while it is also considered to be a major contributory factor to the incidence of chronic obstructive pulmonary disease (COPD) and the development of asthma in children and adults; furthermore, respiratory diseases also occur among those who are subject to passive smoking.

According to Special Eurobarometer 458 , slightly less than one third of all men (30 %) and slightly more than one fifth (22 %) of all women in the EU (including the United Kingdom) smoked in March 2017.

EU Member States have taken various tobacco control measures in the form of legislation, recommendations and information campaigns in an attempt to reduce the number of smokers. From a public health perspective, these measures aim to protect citizens from the hazardous effects of smoking and other forms of tobacco consumption.

Air pollution is a major respiratory health issue: activities involving the burning of fossil fuels, such as some industrial activities, power generation, vehicle emissions and household heating/cooking, as well as natural phenomena (such as volcanic eruptions or dust storms) have the potential to cause respiratory diseases. Most sources of outdoor air pollution are beyond the control of individuals and demand action by urban, national or international policymakers. Those countries that reduce air pollution are likely to benefit from a reduced burden from heart disease, lung cancer, chronic and acute respiratory diseases (including asthma). Policies that can potentially alleviate air pollution include support for cleaner transport, energy-efficient housing or better municipal waste management in urban areas, and policies aimed at reducing agricultural waste incineration, forest fires and certain agro-forestry activities in rural areas.

Indoor air pollution is also generated by a variety of sources, including: human activity (smoking, fuel used for heating or cooking, the use of cleaning materials); buildings (poor ventilation); pets, plants, dust or damp.

Other articles

Online publications

- Health in the European Union — facts and figures
- Disability statistics

Causes of death

- Causes of death
- Causes of death of the elderly

Healthcare activities

- Hospital discharges and length of stay
- Surgical operations and procedures

Methodology

- Healthcare non-expenditure statistics
- European health interview survey
- Causes of death statistics

General health statistics articles

- Health statistics introduced
- Health statistics at regional level
- The EU in the world — health

Publications

Atlas

- Health statistics — Atlas on mortality in the European Union

New releases

- How many EU citizens die from influenza?
- How many deaths from tuberculosis recorded in the EU?
- 44% of elderly people vaccinated against influenza
- Deaths from pneumonia in EU regions

Main tables

- Health (t_hlth), see:

Health care (t_hlth_care)
Causes of death (t_hlth_cdeath)

Database

- Health (hlth), see:

Health status (hlth_state)
Self-reported chronic morbidity (hlth_srcm)
Persons reporting a chronic disease, by disease, sex, age and educational attainment level (hlth_ehis_cd1e)
Health care (hlth_care)
Health care activities (hlth_act)
Hospital discharges and length of stay for inpatient and curative care (hlth_co_dischls)
Hospital discharges - national data (hlth_hosd)
Length of stay in hospital (hlth_hostay)
Preventive services (hlth_prev)
Vaccination against influenza of population aged 65 and over (hlth_ps_immu)
Causes of death (hlth_cdeath)
General mortality (hlth_cd_gmor)
Causes of death - deaths by country of residence and occurrence (hlth_cd_aro)
Causes of death - standardised death rate by residence (hlth_cd_asdr2)

Dedicated section

- Health

Methodology

- Causes of death statistics (ESMS metadata file — hlth_cdeath)
- European health interview survey (ESMS metadata file — hlth_det)
- Healthcare resources (ESMS metadata file — hlth_res)
- Vaccination against influenza of population aged 65 and over (ESMS metadata file — hlth_ps_immu)

External links

- European Commission — Directorate-General for Health and Food Safety — Public health , see:

- European Commission — Directorate-General for Health and Food Safety — European core health indicators (ECHI)
  - European Commission — Directorate-General for Health and Food Safety — Influenza
  - European Commission — Directorate-General for Health and Food Safety — Non-communicable diseases
- European Respiratory Society — European lung white book
- OECD — Health policies and data
- WHO Global Health Observatory (GHO) — Mortality and global health estimates
- World Health Organisation (WHO) — Chronic respiratory diseases
- World Health Organisation (WHO) — Health system governance