Cancer statistics - specific cancers

Statistics Explained

Data extracted in September 2023.
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" Lung cancer accounted for 4.5 % of all deaths in the EU and for around one fifth (19.8 %) of all cancer-related deaths in the EU in 2020. "

" In 2020, at least 4.5 % of all female deaths in Ireland, Malta and Luxembourg were from breast cancer. "

" Among the EU Member States, in 2020 male deaths from prostate cancer ranged from 1.6 % in Romania up to 4.9 % in Denmark. "

This article presents an overview of European Union (EU) statistics related to a selection of the most common types of cancer : trachea, bronchus and lung cancer (hereafter referred to simply as lung cancer); colorectal cancer; breast cancer; and prostate cancer. For each of these four types of cancer, an analysis is provided that focuses on deaths from cancer and cancer healthcare (in terms of the average length of hospital stays for in-patients and the number of hospital discharges); there are also data on screenings for colorectal and breast cancer. An accompanying article provides an overview of statistics related to cancers in general. 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 . This is one of several articles on cancer statistics, for information on cancer screening and cancer statistics , please refer to the respective articles. Most of the data in this article relate to either 2020 or 2021, although there are some data for earlier reference periods: as such, this article includes data that may have been impacted by the COVID-19 pandemic and its related restrictions. For this reason, particular attention should be paid when comparing the 2020 and/or 2021 data with data from earlier years. In some EU Member States, healthcare resources were placed under intense pressure (particularly at the start of the pandemic) from an influx of patients with COVID-19. The pandemic also resulted in a range of knock-on effects including, among others, some services being curtailed/postponed due to the number of COVID-19 patients, staff shortages within hospitals and day care centres due to infection/quarantine procedures, and patients being hindered accessing medical services due to their own infection/quarantine as well as lockdown or travel restrictions.

Lung cancer

Within the EU, lung cancer accounted for around one fifth of all deaths from cancer

In 2020, nearly a quarter of a million (230 700) people died from lung cancer in the EU, almost one fifth (19.8 %) of all deaths from cancer and 4.5 % of the total number of deaths – see Table 1. The share of all deaths attributed to lung cancer was 5.9 % among males, which was almost twice as high as the share (3.0 %) recorded for females.

Causes of death – malignant neoplasms of trachea, bronchus and lung, residents, 2020

	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	230 718	4.5	5.9	3.0	48.4	72.9	29.6	15.6	184.1
Belgium	5 696	4.5	6.0	3.1	49.4	72.3	32.1	14.2	194.8
Bulgaria	3 461	2.8	4.0	1.5	44.8	77.9	20.5	20.4	145.8
Czechia	5 307	4.1	5.1	3.0	48.8	73.5	30.8	12.0	200.6
Denmark	3 384	6.2	6.1	6.3	57.2	62.8	53.1	13.0	239.7
Germany	44 870	4.5	5.6	3.5	47.5	65.2	33.5	14.8	182.6
Estonia	608	3.9	6.3	1.7	44.6	94.1	15.7	14.1	170.6
Ireland	1 976	6.0	6.4	5.6	52.1	61.7	44.0	12.0	217.7
Greece	7 006	5.4	8.1	2.5	58.0	98.6	24.8	17.6	224.7
Spain	21 906	4.4	6.7	2.2	44.8	76.2	19.8	15.4	166.2
France	30 973	4.6	6.3	3.0	44.4	68.2	25.8	17.3	156.4
Croatia	2 821	4.9	6.8	3.1	63.0	99.7	35.9	22.9	228.3
Italy	32 173	4.3	6.1	2.6	44.5	69.8	25.2	11.1	182.2
Cyprus	316	4.8	7.4	2.0	40.9	71.4	14.5	15.7	145.0
Latvia	943	3.3	5.4	1.4	46.8	100.3	17.2	15.7	175.2
Lithuania	1 218	2.8	4.5	1.3	41.4	88.4	15.0	13.7	155.7
Luxembourg	197	4.4	4.9	3.9	39.2	49.2	32.4	10.5	157.9
Hungary	8 159	5.8	7.0	4.6	81.0	118.1	56.6	32.2	282.5
Malta	173	4.2	6.4	1.9	35.6	63.3	14.1	6.7	154.9
Netherlands	10 102	6.0	6.8	5.2	57.2	71.4	47.1	15.5	229.5
Austria	4 056	4.5	5.4	3.6	44.7	59.4	33.1	13.9	172.0
Poland	22 255	4.7	5.7	3.5	60.5	94.3	37.6	19.2	230.9
Portugal	4 316	3.5	5.2	1.8	37.2	64.5	16.6	14.6	130.1
Romania	9 456	3.2	4.5	1.8	49.1	83.6	22.5	23.0	156.7
Slovenia	1 189	5.0	6.4	3.7	53.3	74.8	36.2	15.1	210.8
Slovakia	2 313	3.9	5.3	2.5	47.5	82.2	24.9	13.7	187.3
Finland	2 281	4.1	5.1	3.2	36.7	52.4	25.2	8.3	153.7
Sweden	3 563	3.6	3.4	3.8	33.5	35.0	32.8	5.9	147.8
Iceland	121	5.3	4.8	5.8	43.8	44.5	44.7	8.1	190.9
Liechtenstein	11	3.5	3.2	3.9	31.1	28.7	29.2	13.3	104.7
Norway	2 184	5.5	6.0	5.0	44.6	52.0	39.0	9.5	189.7
Switzerland	3 200	4.2	4.9	3.5	37.5	47.8	29.1	9.7	152.0
Serbia	5 018	4.3	5.7	2.9	65.7	99.6	38.6	29.1	216.6
Türkiye (1)	*23 162*	*5.4*	*8.3*	*1.9*	*50.2*	*93.0*	*14.6*	*18.3*	*181.6*

(1) 2019. Definition differs for standardised death rates (other than for persons aged < 65 years).

Source: Eurostat (online data codes: hlth_cd_aro and hlth_cd_asdr2)

eurostat

Table 1: Causes of death – malignant neoplasms of trachea, bronchus and lung, residents, 2020 Source: Eurostat (hlth_cd_aro) and (hlth_cd_asdr2)

Among the EU Member States, the share of the total number of deaths from lung cancer peaked in 2020 in Denmark (6.2 %), followed by Ireland and the Netherlands (both 6.0 %). By contrast, shares of less than 3.0 % were recorded in Bulgaria and Lithuania (both 2.8 %).

In 2020, the highest share of female deaths from lung cancer was recorded in Denmark (6.3 %), Ireland and the Netherlands were the only other EU Member States with shares of more than 5.0 %. These were the same three Member States that recorded the highest overall (male and female) shares of total deaths from lung cancer. Among males, the picture was somewhat different, the share of male deaths from lung cancer peaked in Greece (at 8.1 %). Cyprus and Hungary both recorded shares of at least 7.0 %. Denmark and Sweden were the only Member States to report a higher share of female deaths (compared with male deaths) from lung cancer.

In 2020, the EU standardised death rate for lung cancer was 48.4 per 100 000 inhabitants, higher than the rates for the three other types of cancer presented in this article. An analysis by sex and by age shows large differences in the standardised death rates for lung cancer: for males, the rate was 72.9 per 100 000 inhabitants, some 2.5 times as high as for females (29.6 per 100 000 inhabitants), although there were signs of this gender gap narrowing in recent years. As is typical for cancers as a whole, the standardised death rate for lung cancer for persons aged 65 years and over (184.1 per 100 000 inhabitants) was much higher than for younger persons: for persons aged less than 65 years the rate was 15.6 per 100 000 inhabitants.

Among the EU Member States, by far the highest standardised death rate for lung cancer in 2020 was recorded in Hungary (81.0 per 100 000 inhabitants), followed by Croatia and Poland with rates of 63.0 and 60.5 deaths per 100 000 inhabitants, respectively. Luxembourg, Portugal, Finland, Malta and Sweden were the only Member States to record standardised death rates for lung cancer that were below 40.0 per 100 000 inhabitants. Sweden had the

lowest standardised death rate, at 33.5 deaths per 100 000 inhabitants.

An analysis by sex reveals the lowest standardised death rate for lung cancer among males was recorded in Sweden (where the rate was 35.0 per 100 000 male inhabitants in 2020); this was considerably lower than in any of the other Member States, as the next lowest death rate was 49.2 per 100 000 male inhabitants in Luxembourg. For females, the lowest standardised death rates for lung cancer were recorded in Lithuania, Cyprus and Malta (no more than 15.0 per 100 000 female inhabitants).

More than 450 000 in-patient discharges for lung cancer, in 2021

Based on available data for the EU Member States, there were 458 500 discharges of lung cancer in-patients (2021 data except: 2020 data for Belgium and Malta; no recent data for Denmark, Estonia, Greece or Luxembourg).

From Figure 1 it can be seen that the highest discharge rate for in-patients in 2021 was in Austria, where 234 in-patients per 100 000 inhabitants were discharged after diagnosis or treatment for lung cancer. This was closely followed by Germany, where the rate was 225 discharges per 100 000 inhabitants. Elsewhere, the rate ranged from 152 discharges per 100 000 inhabitants in Latvia to 32 discharges per 100 000 inhabitants in Malta (2020 data).

The average length of stay for lung cancer in-patients ranges from 3.5 days in Bulgaria to 14.7 days in Malta

Among the EU Member States for which data are available (see Figure 1), in 2021 the average length of stay for lung cancer in-patients ranged from less than 5.0 days in Cyprus and Bulgaria (where the lowest average stay was recorded at 3.5 days) to 11.1 days in Ireland and Portugal and a peak of 14.7 days in Malta (2020 data). The average length of stay for lung cancer in-patients was typically longer
than the average for all in-patients having been treated for neoplasms (whether malignant (cancer), in situ or benign).

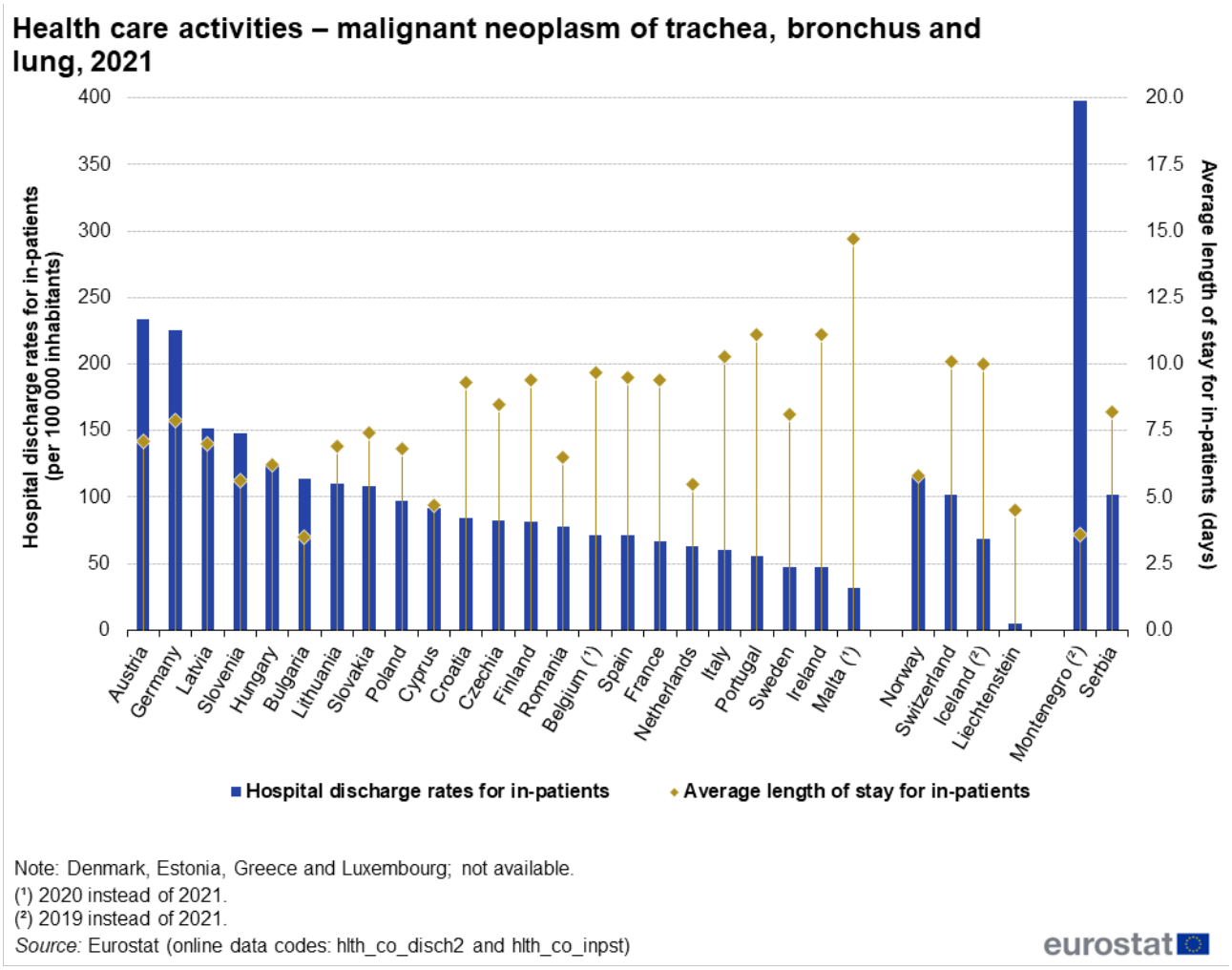


Figure 1: Health care activities – malignant neoplasm of trachea, bronchus and lung, 2021 Source: Eurostat (hlth_co_disch2) and (hlth_co_inpst)

Colorectal cancer

Cyprus and Greece have the lowest share of deaths from colorectal cancer

In 2020, 135 500 people died from colorectal cancer in the EU, equivalent to 11.6 % of all deaths from cancer and 2.6 % of the total number of deaths from any cause – see Table 2. The share of deaths attributed to colorectal cancer was 2.9
% for males and 2.3 % for females, representing a much narrower gender gap than the one observed for lung cancer.

Causes of death – malignant neoplasms of colon, rectosigmoid junction, rectum, anus and anal canal, residents, 2020

	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	135 545	2.6	2.9	2.3	28.0	37.3	21.3	6.6	116.5
Belgium	2 562	2.0	2.2	1.9	21.6	27.2	17.5	4.5	92.2
Bulgaria	2 681	2.2	2.4	1.9	36.0	52.1	25.2	9.9	143.3
Czechia	3 437	2.7	3.0	2.3	33.3	47.3	23.8	7.8	138.8
Denmark	1 656	3.0	3.2	2.9	28.8	35.1	24.1	5.7	124.3
Germany	24 421	2.5	2.7	2.2	25.2	32.4	19.6	5.9	104.9
Estonia	417	2.7	2.9	2.4	29.8	49.8	20.9	3.6	138.0
Ireland	1 024	3.1	3.5	2.8	27.3	34.8	21.2	5.9	115.8
Greece	2 774	2.1	2.4	1.8	21.5	28.3	16.2	4.7	90.9
Spain	15 113	3.1	3.6	2.6	29.4	41.5	20.6	6.4	124.7
France	17 214	2.6	2.7	2.4	23.3	30.4	18.3	5.5	97.0
Croatia	2 079	3.6	4.4	2.9	47.6	70.7	32.4	10.8	199.5
Italy	18 901	2.5	2.8	2.3	25.1	32.6	19.8	5.4	106.6
Cyprus	134	2.1	2.4	1.7	18.6	24.3	13.4	3.7	80.1
Latvia	680	2.4	2.4	2.4	33.3	47.1	26.8	7.1	141.5
Lithuania	905	2.1	2.3	2.0	30.4	47.5	21.9	6.9	127.6
Luxembourg	116	2.6	2.5	2.7	23.9	27.5	21.3	4.0	105.7
Hungary	4 910	3.5	4.0	3.0	50.5	73.5	36.1	14.2	200.4
Malta	121	3.0	3.2	2.7	25.6	31.9	20.5	5.3	109.3
Netherlands	4 642	2.8	2.8	2.7	27.1	31.5	23.8	6.5	112.3
Austria	2 135	2.4	2.8	2.0	23.4	32.5	16.9	4.9	99.8
Poland	12 510	2.6	2.9	2.3	35.6	52.4	25.2	8.6	147.4
Portugal	3 806	3.1	3.6	2.5	32.0	46.5	22.1	8.8	128.0
Romania	6 442	2.2	2.4	1.9	34.3	49.0	24.4	9.9	135.0
Slovenia	683	2.9	3.5	2.3	30.9	45.8	21.3	6.1	133.2
Slovakia	2 127	3.6	4.2	2.9	46.3	72.3	30.7	10.8	192.8
Finland	1 275	2.3	2.4	2.2	20.8	26.1	16.8	5.0	86.0
Sweden	2 780	2.8	2.8	2.8	26.4	29.7	23.6	5.4	113.0
Iceland	70	3.1	2.9	3.3	24.9	24.7	25.0	8.1	94.1
Liechtenstein	5	1.6	0.6	2.6	14.1	6.7	20.0	0.0	72.3
Norway	1 556	3.9	4.0	3.8	32.2	36.8	28.9	6.5	137.9
Switzerland	1 660	2.2	2.5	1.9	19.1	24.7	15.0	4.3	80.5
Serbia	2 477	2.1	2.5	1.7	34.2	48.0	23.9	10.1	133.6
Türkiye (1)	*7 305*	*1.7*	*1.8*	*1.5*	*16.2*	*21.6*	*11.8*	*4.8*	*63.0*

(1) 2019. Definition differs for standardised death rates (other than for persons aged < 65 years).

Source: Eurostat (online data codes: hlth_cd_aro and hlth_cd_asdr2)

eurostat

Table 2: Causes of death – malignant neoplasms of colon, rectosigmoid junction, rectum, anus and anal canal, residents, 2020 Source: Eurostat (hlth_cd_aro) and (hlth_cd_asdr2)

In 2020, the proportion of deaths attributed to colorectal cancer peaked among the EU Member States in Croatia and Slovakia (both 3.6 %), with a relatively high share also recorded in Hungary (3.5 %). At the other end of the range, the lowest share of deaths from colorectal cancer was reported in Belgium (2.0 %), with marginally higher shares – no more than 2.2 % – recorded in Cyprus, Lithuania, Greece, Bulgaria and Romania.

An analysis by sex reveals that Cyprus recorded the lowest share of deaths attributed to colorectal cancer for females (1.7 %), while Belgium recorded the lowest share for males (2.2 %). Hungary recorded the highest share for females, with 3.0 % of female deaths attributed to colorectal cancer in 2020; Croatia recorded the highest share of male deaths, at 4.4 %. Luxembourg was the only EU Member State, where the share of deaths for colorectal cancer was higher among females than among males; there was no difference between the sexes in the shares recorded in Latvia and Sweden. The largest gender gap was reported in Croatia, where the share of male deaths from colorectal cancer was 1.5 percentage points higher than that for females.

In 2020, the EU standardised death rate for colorectal cancer was 28.0 per 100 000 inhabitants. An analysis by sex shows some differences in the standardised death rates for colorectal cancer: for males, the EU rate was 1.75 times as high for males compared with females; this difference was nevertheless considerably lower than the corresponding ratio recorded for lung cancer.

As is typical for cancers as a whole, the standardised death rate for colorectal cancer for persons aged 65 years and over was substantially higher than it was for younger persons. When expressed as a ratio, the EU's standardised death rate for persons aged 65 years and over was almost 18 times as high as it was for younger persons, a higher ratio than for lung cancer (12 times as high) and also higher than the ratio for all cancers (14 times as high).

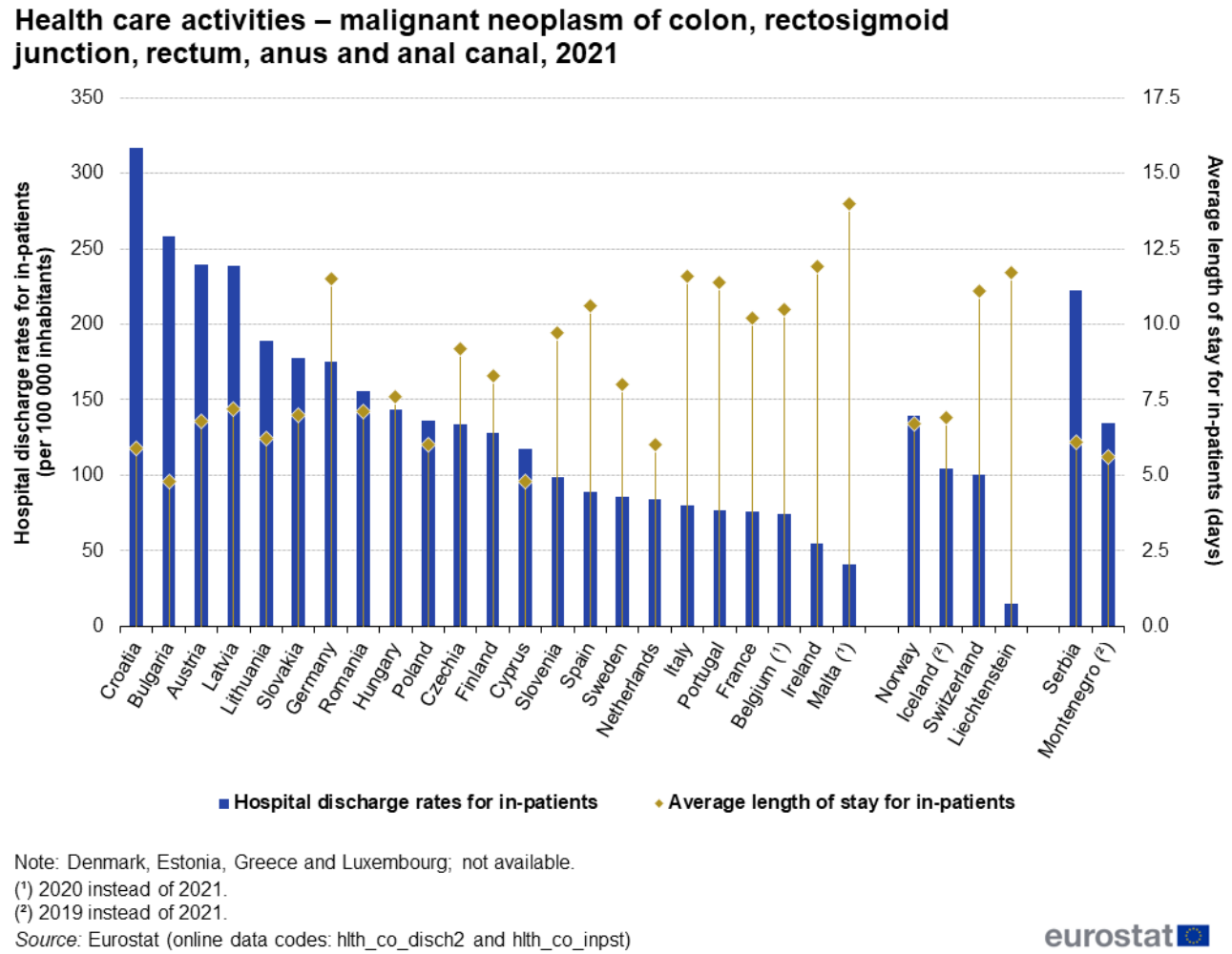
As with lung cancer, the highest standardised death rate for colorectal cancer among the EU Member States in 2020 was recorded in Hungary (50.5 per 100 000 inhabitants), followed by Croatia (47.6 per 100 000 inhabitants) and Slovakia (46.3 per 100 000 inhabitants). Cyprus was the only Member State to record a standardised death rate for colorectal cancer that was below 20.0 per 100 000 inhabitants.

In 2020, Hungary, Slovakia and Croatia recorded the highest standardised death rates for colorectal cancer among males, while the same Member States in a different order – Hungary, Croatia and Slovakia – recorded the two highest rates among females. Cyprus recorded the lowest standardised death rates for both males and females. In all EU Member States, standardised death rates for colorectal cancer were higher among males than among females. The narrowest gender gap was recorded in Sweden (where the rate for males was 6.1 deaths per 100 000 inhabitants higher than that for females); Luxembourg, the Netherlands, Finland and Belgium also recorded differences between the sexes that were less than 10.0 deaths per 100 000 inhabitants. By contrast, in Hungary, Croatia and Slovakia, the rates for males were 37.4–41.6 deaths per 100 000 inhabitants higher than those for females.

Croatia report the highest in-patient discharge rates for colorectal cancer

Based on available data for the EU Member States, there were 520 200 hospital discharges of colorectal cancer in-patients (2021 data except: 2020 data for Belgium and Malta; no recent data for Denmark, Estonia, Greece or Luxembourg).

Figure 2 shows that the highest discharge rate for colorectal cancer in-patients in 2021 was recorded in Croatia (317 in-patient discharges per 100 000 inhabitants), followed at some distance by Bulgaria, Austria and Latvia (where there were 258, 239 and 239 in-patient discharges per 100 000 inhabitants, respectively). None of the remaining EU Member States for which data are available reported a rate in excess of 200 discharges per 100 000 inhabitants. The lowest rates were reported for Ireland and Malta (2020 data), at 55 and 41 discharges per 100 000 inhabitants, respectively.



Note: Denmark, Estonia, Greece and Luxembourg; not available.
(1) 2020 instead of 2021.
(2) 2019 instead of 2021.
Source: Eurostat (online data codes: hlth_co_disch2 and hlth_co_inpst)

Figure 2: Health care activities – malignant neoplasm of colon, rectosigmoid junction, rectum, anus and anal canal, 2021 Source: Eurostat (hlth_co_disch2) and (hlth_co_inpst)

In 2021, among the EU Member States for which data are available (see Figure 2), the average length of stay for colorectal cancer in-patients ranged from 4.8 days in Bulgaria to 14.0 days in Malta (2020 data).

The indicator on colorectal screening presented in Figure 3 reflects a Council recommendation and refers to the population aged 50 to 74 years who reported having had a faecal occult blood test. The third wave of the European health interview survey (EHIS) was conducted for 2019 and through this survey people were asked when they had most recently been screened for colorectal cancer. Denmark and Austria had the highest proportion of their populations aged 50–74 years having been screened for colorectal cancer, both with shares of around four fifths. Apart from these two EU Member States, a large majority of respondents (between two thirds and three quarters) in Germany, Slovenia and Czechia also reported that they had been screened for colorectal cancer. In 14 EU Member States, less than half of the population aged 50–74 years had ever been screened. The lowest proportions (between 6 % and 7 %) were registered in Bulgaria, Cyprus and Romania.

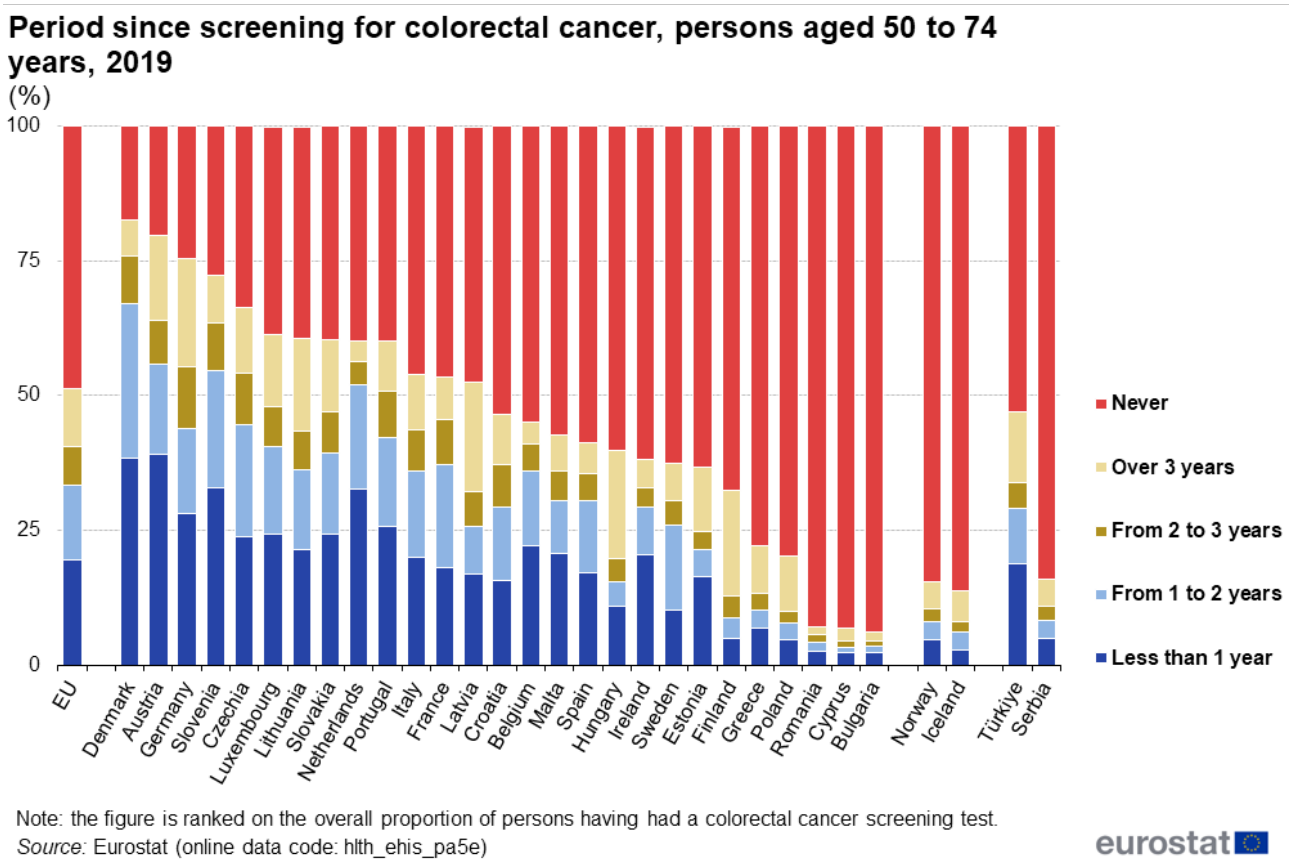


Figure 3: Period since screening for colorectal cancer, persons aged 50 to 74 years, 2019 (%) Source: Eurostat (hlth_ehis_pa5e)

In most EU Member States, more than half of persons who had at some stage been screened for colorectal cancer reported that this screening had occurred within the previous two years; this share peaked at 86 % in the Netherlands, with shares of at least 80 % also recorded in Denmark and Belgium. By contrast, in Hungary, Poland and Finland less than 40 % of people who had been screened reported that this had been within the previous two years.

Breast cancer

In Ireland, Malta and Luxembourg, at least more than 4.5 % of deaths among females were from breast cancer

In 2020, 86 400 people died from breast cancer in the EU, of which just under one thousand were males and the vast majority (85 400) were females. As such, deaths from breast cancer made up 7.4 % of all deaths from cancer; among females, breast cancer accounted for 16.6 % of all deaths from cancer.

Causes of death – malignant neoplasms of breast, residents, 2020

	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	86 399	1.7	0.0	3.3	18.0	0.5	31.4	6.5	65.1
Belgium	2 090	1.7	0.0	3.2	17.8	0.5	31.5	5.8	67.7
Bulgaria	1 425	1.2	0.0	2.4	19.3	0.7	32.9	7.4	68.5
Czechia	1 735	1.3	0.0	2.7	17.1	0.5	29.0	5.3	66.0
Denmark	1 053	1.9	0.0	3.9	18.5	0.3	33.1	5.4	72.4
Germany	18 616	1.9	0.0	3.7	19.4	0.4	34.4	6.5	72.8
Estonia	261	1.7	0.0	3.1	18.9	0.7	29.8	6.8	68.8
Ireland	775	2.4	0.0	4.9	19.9	0.3	36.5	7.3	71.8
Greece	2 220	1.7	0.0	3.4	17.5	0.5	31.3	6.2	64.2
Spain	6 640	1.3	0.0	2.7	12.8	0.4	22.7	5.4	43.3
France	13 022	1.9	0.1	3.8	18.0	0.7	31.4	7.2	62.5
Croatia	729	1.3	0.0	2.5	16.8	0.3	29.0	6.0	61.7
Italy	13 226	1.8	0.0	3.4	18.0	0.5	31.7	6.8	64.2
Cyprus	121	1.9	0.1	3.8	16.3	0.8	29.5	6.8	55.4
Latvia	451	1.6	0.0	2.9	22.4	0.0	35.5	9.0	78.1
Lithuania	561	1.3	0.0	2.5	19.1	0.3	30.5	7.5	67.2
Luxembourg	99	2.2	0.1	4.5	20.3	1.0	34.4	3.7	88.7
Hungary	2 223	1.6	0.0	3.0	22.9	0.8	37.5	7.8	85.5
Malta	96	2.3	0.0	4.8	20.1	0.5	37.0	6.7	75.7
Netherlands	3 091	1.8	0.0	3.7	18.1	0.3	32.8	6.9	64.3
Austria	1 668	1.8	0.0	3.6	18.3	0.5	31.7	5.1	73.1
Poland	7 040	1.5	0.0	3.1	19.9	0.6	33.3	7.1	72.7
Portugal	1 809	1.5	0.0	2.9	15.6	0.5	26.4	6.3	53.9
Romania	3 540	1.2	0.0	2.5	18.7	0.7	32.2	7.6	64.5
Slovenia	477	2.0	0.0	3.9	21.9	0.3	37.3	5.9	88.2
Slovakia	1 080	1.8	0.0	3.7	23.8	0.4	38.9	6.5	95.6
Finland	952	1.7	0.0	3.4	15.8	0.2	28.2	5.5	58.2
Sweden	1 399	1.4	0.0	2.8	13.5	0.2	24.8	4.6	50.2
Iceland	45	2.0	0.2	3.8	15.5	1.2	28.8	6.8	51.4
Liechtenstein	8	2.6	0.0	5.2	23.4	0.0	39.8	5.8	96.3
Norway	605	1.5	0.1	2.9	12.3	0.5	22.6	4.7	43.6
Switzerland	1 318	1.7	0.0	3.4	15.1	0.3	27.1	5.0	56.9
Serbia	1 825	1.6	0.1	3.2	25.3	1.3	44.2	9.9	88.9
Türkiye (1)	*4 268*	*1.0*	*0.0*	*2.1*	*8.1*	*0.3*	*14.8*	*4.4*	*23.1*

(1) 2019. Definition differs for standardised death rates (other than for persons aged < 65 years).

Source: Eurostat (online data codes: hlth_cd_aro and hlth_cd_asdr2)

eurostat

Table 3: Causes of death – malignant neoplasms of breast, residents, 2020 Source: Eurostat (hlth_cd_aro) and (hlth_cd_asdr2)

In 2020, breast cancer was the main cause of death for 1.7 % of the total number of deaths in the EU (see Table 3); among females, breast cancer accounted for 3.3 % of all deaths. Across the EU Member States, the share of deaths from breast cancer (among females) in 2020 was highest at 4.9 % in Ireland, while Malta and Luxembourg were the only other EU Member States to record shares over 4.0 %. By contrast, the lowest shares – no more than 2.5 % – were recorded in Lithuania, Romania, Croatia and Bulgaria.

The EU standardised death rate for breast cancer was 31.4 per 100 000 inhabitants in 2020 for females and 0.5 per 100 000 inhabitants for males. As is typical for cancers as a whole, the standardised death rate for breast cancer for persons aged 65 years and over (65.1 per 100 000 inhabitants) was many times higher than it was for younger persons aged less than 65 (6.5 per 100 000 inhabitants). Nevertheless, this age difference was somewhat narrower than for all malignant neoplasms in general: when expressed as a ratio, the standardised death rate for breast cancer among persons aged 65 years and over was 10 times as high as it was for younger persons, compared with 14 times as high for all cancers.

In 2020, the highest standardised death rate for breast cancer among females was recorded in Slovakia (38.9 deaths per 100 000 inhabitants), followed by Hungary (37.5 per 100 000) Slovenia (37.3 per 100 000) and Malta (37.0 per 100 000). Eight EU Member States recorded standardised death rates for breast cancer for females that were below 30.0 per 100 000: Estonia, Cyprus, Czechia, Croatia, Finland, Portugal, Sweden and Spain; the latter had the lowest rate, at 22.7 per 100 000 inhabitants.

In 17 out of the 27 EU Member States, the standardised death rate for females for breast cancer in 2020 was higher than that for lung cancer; the gap was particularly large in Malta and Latvia. The most notable exceptions – where

there were, among females, 14–20 more deaths per 100 000 female inhabitants from lung cancer than from breast cancer – were the Netherlands, Hungary and Denmark.

Austria records the highest in-patient discharge rates for breast cancer

Based on available data for the EU Member States, there were 446 100 discharges of breast cancer in-patients (2021 data except: 2020 data for Belgium and Malta; no recent data for Denmark, Estonia, Greece or Luxembourg).

Figure 4 shows that the highest discharge rates for in-patients in 2021 were recorded in Austria, the only EU Member State to report more than 200 in-patients per 100 000 inhabitants were discharged after diagnosis or treatment for breast cancer. In a majority of the EU Member States for which data are available (17 out of 23; see Figure 4), the in-patient discharge rate for breast cancer was below 100 discharges per 100 000 inhabitants. Ireland, Sweden and Malta (2020 data) recorded the lowest rates, with fewer than 40.0 discharges per 100 000 inhabitants.

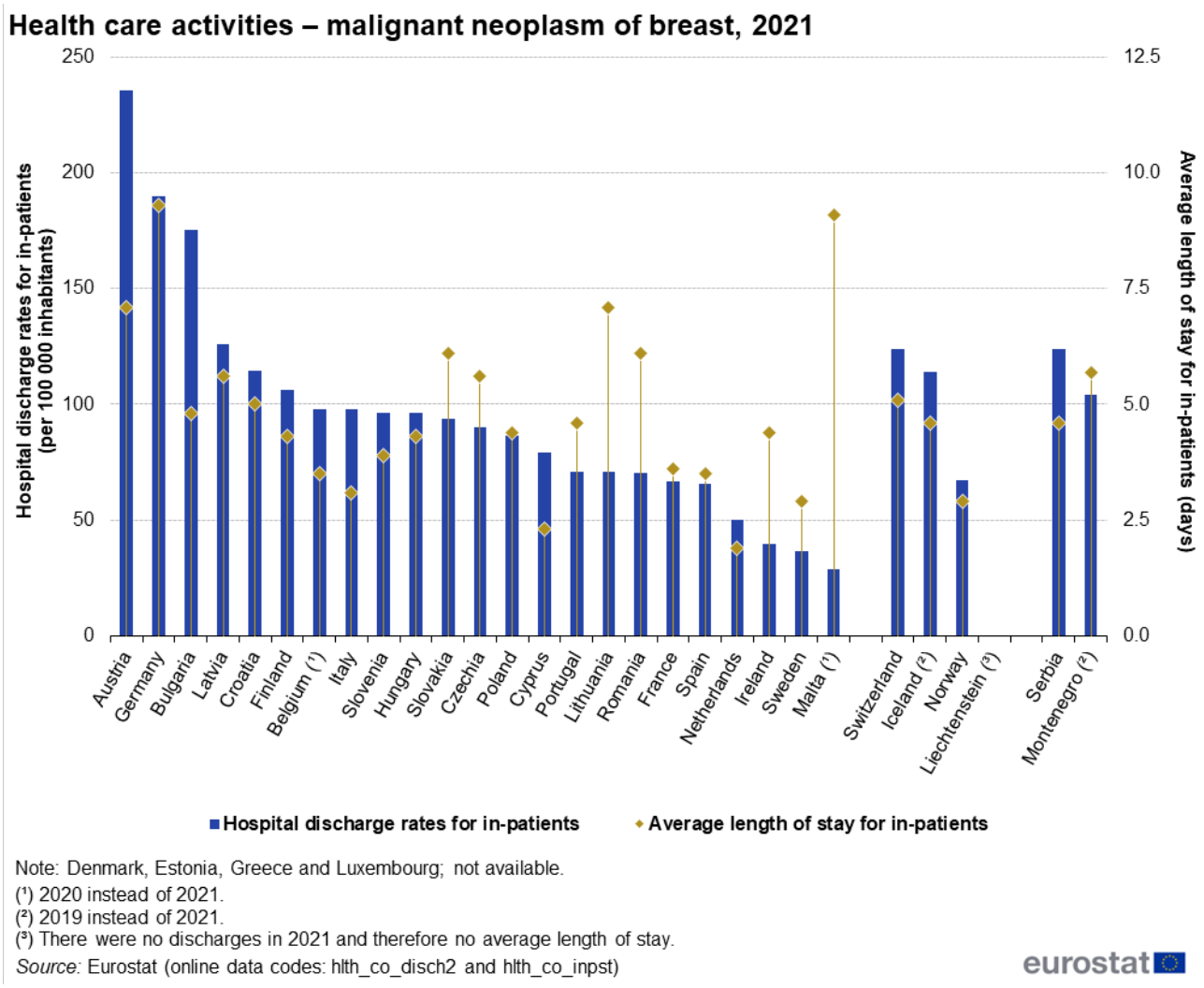


Figure 4: Health care activities – malignant neoplasm of breast, 2021 Source: Eurostat (hlth_co_disch2) and (hlth_co_inpst)

The average length of stay for breast cancer in-patients is longest in Germany and Malta

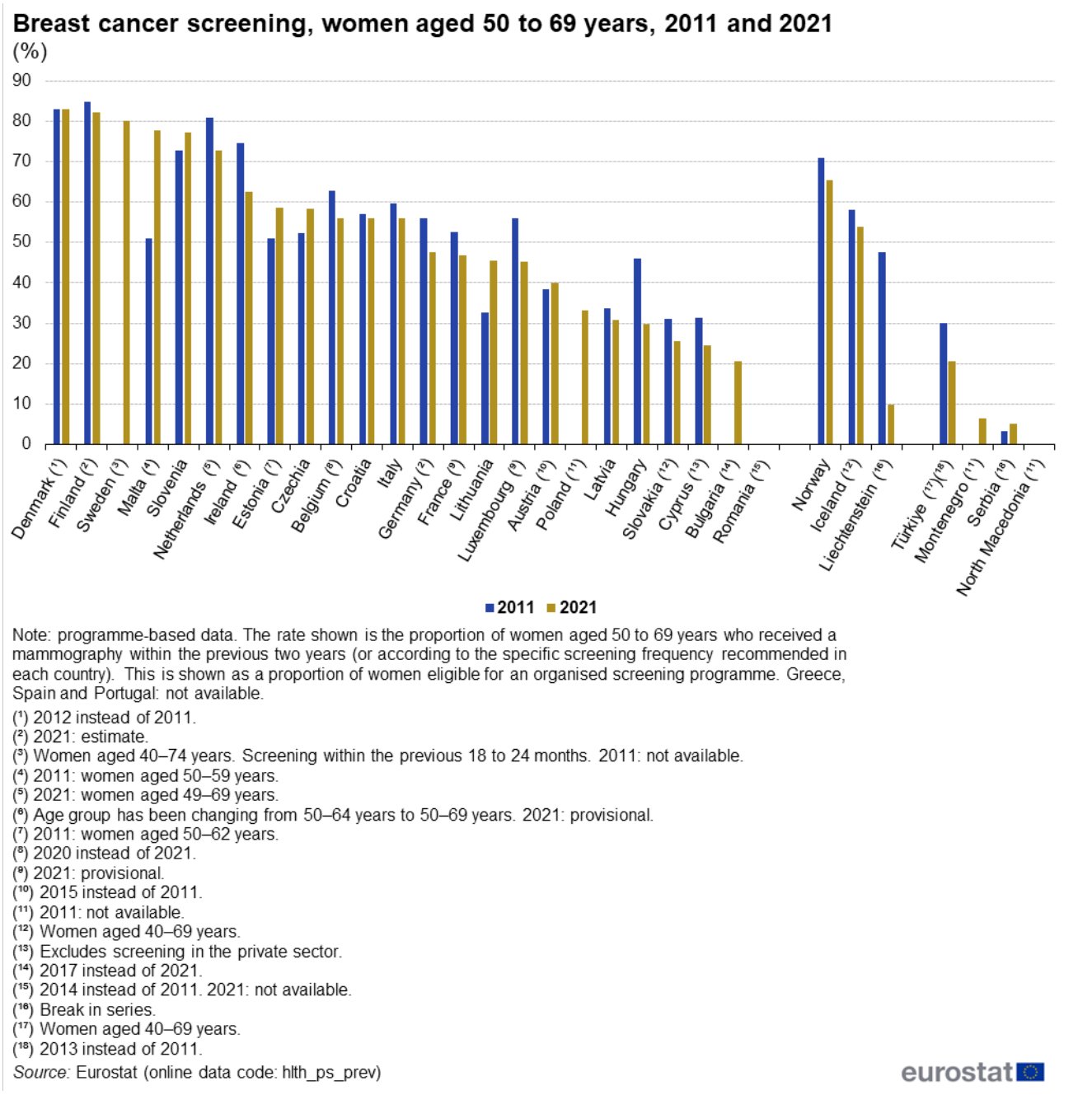
In 2021, the average length of stay for breast cancer in-patients among the majority of the 23 EU Member States for which data are available (see Figure 4) ranged from 2.9 days in Sweden to 7.1 days in Austria and Lithuania. The Netherlands and Cyprus were below this range (1.9 and 2.3 days, respectively), while Malta (9.1 days; 2020 data) and Germany (9.3 days) were above it. A comparison with the average length of stay for all in-patients having been

treated for neoplasms shows that in nearly all Member States the average length of stay for breast cancer in-patients was shorter.

Breast cancer screening rates of 80 % or higher in the Nordic Member States

The information presented for breast cancer screening is administrative data from screening programmes. The standard analysis is the proportion of women aged 50–69 years who had received a mammography within the previous two years; in practice, some countries use different age ranges or screening frequencies. Overall, the rates for breast cancer screening across EU Member States are much higher than those reported for colorectal screening.

Data on breast cancer screening rates for women are available for 2021 (in a few cases earlier reference periods are used) for 23 of the EU Member States; see Figure 5 for more details. Among these, screening rates were below 40.0 % in six Member States, with a low of 20.6 % in Bulgaria (2017 data). At the other end of the range, Denmark and Finland reported screening rates that were above four fifths, peaking at 83.0 % in Denmark, while Sweden, Malta and Slovenia had rates within the range of 77.2–80.0 %.



Note: programme-based data. The rate shown is the proportion of women aged 50 to 69 years who received a mammography within the previous two years (or according to the specific screening frequency recommended in each country). This is shown as a proportion of women eligible for an organised screening programme. Greece, Spain and Portugal: not available.

(1) 2012 instead of 2011.
(2) 2021: estimate.
(3) Women aged 40–74 years. Screening within the previous 18 to 24 months. 2011: not available.
(4) 2011: women aged 50–59 years.
(5) 2021: women aged 49–69 years.
(6) Age group has been changing from 50–64 years to 50–69 years. 2021: provisional.
(7) 2011: women aged 50–62 years.
(8) 2020 instead of 2021.
(9) 2021: provisional.
(10) 2015 instead of 2011.
(11) 2011: not available.
(12) Women aged 40–69 years.
(13) Excludes screening in the private sector.
(14) 2017 instead of 2021.
(15) 2014 instead of 2011. 2021: not available.
(16) Break in series.
(17) Women aged 40–69 years.
(18) 2013 instead of 2011.

Source: Eurostat (online data code: hlth_ps_prev)

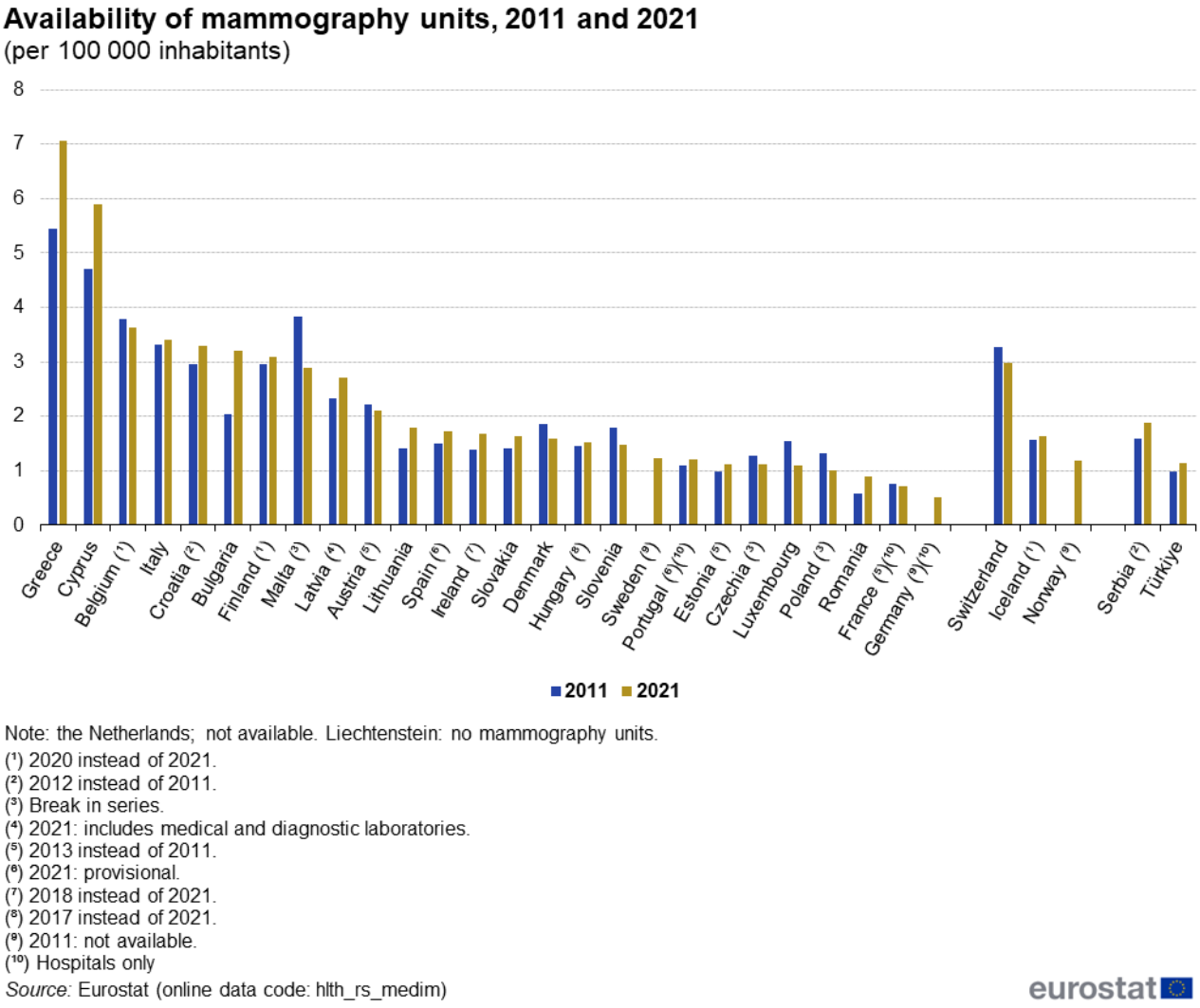
eurostat

Figure 5: Breast cancer screening, women aged 50 to 69 years, 2011 and 2021 (%) Source: Eurostat (hlth_ps_prev)

A comparison of data for the two years shown in Figure 5 indicates that breast cancer screening rates increased in 6 of the 20 EU Member States for which data are available, with the largest increases (in percentage point terms) observed in Malta (up 26.9 points; note that the age range changed over time) and Lithuania (up 12.9 points). In the 13 Member States where screening rates fell between the two years shown (there was no change recorded in Denmark; 2012–2021), the decreases were generally relatively small. Nevertheless, falls in excess of 10.0 percentage points were observed in Luxembourg, Ireland (note that the age ranges covered changed over time) and Hungary.

Figure 6 indicates the availability of equipment solely intended for conducting mammographies. Relative to the size of population, this type of equipment was most widely available in 2021 in Greece (7.1 units per 100 000 inhabitants) and Cyprus (5.9 units per 100 000 inhabitants). The number of mammography units was also relatively high – within the range of 3.1–3.6 units per 100 000 inhabitants – in Belgium (2020 data), Italy, Croatia, Bulgaria and Finland (2020 data). By contrast, there were fewer than 1.0 mammography units per 100 000 inhabitants in Romania, France (hospitals only) and Germany (hospitals only).

The largest increases between 2011 and 2021 in the availability of mammography units relative to the size of population were recorded in Greece, Cyprus and Bulgaria. By contrast, the availability of these units fell in 9 out of the 24 EU Member States for which data are available (see Figure 6), with the largest decreases registered in Luxembourg and Malta (note that there is a break in series).



Note: the Netherlands; not available. Liechtenstein: no mammography units.
(1) 2020 instead of 2021.
(2) 2012 instead of 2011.
(3) Break in series.
(4) 2021: includes medical and diagnostic laboratories.
(5) 2013 instead of 2011.
(6) 2021: provisional.
(7) 2018 instead of 2021.
(8) 2017 instead of 2021.
(9) 2011: not available.
(10) Hospitals only
Source: Eurostat (online data code: hlth_rs_medim)

Figure 6: Availability of mammography units, 2011 and 2021 (per 100 000 inhabitants) Source: Eurostat (hlth_rs_medim)

Comparing the data presented in Figures 5 and 6 – and leaving aside Germany and France where there is only partial coverage of the availability of mammography units – breast cancer screening rates in Sweden, Czechia, Slovenia and Denmark appeared to be relatively high compared with the availability of mammography units, implying a higher average intensity of use or a greater use for screening of units other than ones solely for mammographies. By contrast, relatively low screening rates were observed in Cyprus and Bulgaria combined with a relatively high availability of mammography units.

Prostate cancer

In Sweden, the standardised death rate for prostate cancer for males is higher than the equivalent rate for lung cancer

In 2020, 68 900 males died from prostate cancer in the EU (see Table 4), equivalent to 10.6 % of all male deaths from cancer and 2.6 % of the total number of male deaths from any cause.

Causes of death – malignant neoplasms of prostate, males, residents, 2020

	Number of male deaths	Share of all male deaths	Standardised death rates		
			Males	Males aged < 65 years	Males aged ≥ 65 years
	(number)	(%)	(per 100 000 inhabitants)		
EU	68 946	2.6	36.2	2.1	177.0
Belgium	1 586	2.6	34.2	1.7	168.6
Bulgaria	1 192	1.8	45.4	3.0	220.5
Czechia	1 528	2.3	40.1	2.7	194.2
Denmark	1 359	4.9	59.0	2.5	292.1
Germany	15 418	3.1	39.0	2.4	190.2
Estonia	241	3.2	59.6	4.3	287.9
Ireland	613	3.6	40.6	2.3	198.7
Greece	1 784	2.7	30.6	1.4	150.8
Spain	5 925	2.4	28.6	1.6	140.4
France	9 191	2.7	31.8	1.9	155.4
Croatia	785	2.8	51.4	2.3	253.9
Italy	7 880	2.2	25.8	1.3	127.1
Cyprus	81	2.3	29.6	0.6	149.2
Latvia	428	3.2	72.3	4.4	352.7
Lithuania	535	2.5	58.9	4.1	285.2
Luxembourg	65	2.9	35.1	2.5	169.7
Hungary	1 350	2.0	41.5	3.2	199.5
Malta	38	1.8	23.0	1.0	113.9
Netherlands	3 010	3.6	43.4	2.2	213.3
Austria	1 402	3.2	40.4	2.0	199.3
Poland	5 749	2.3	47.6	3.1	231.4
Portugal	1 946	3.2	43.2	2.1	213.0
Romania	2 459	1.6	35.4	2.6	170.9
Slovenia	447	3.9	58.6	3.4	286.8
Slovakia	764	2.5	50.2	3.4	243.7
Finland	918	3.3	38.9	2.0	191.4
Sweden	2 252	4.5	51.9	2.1	257.3
Iceland	64	5.6	55.0	2.9	270.2
Liechtenstein	3	1.9	16.9	5.6	63.6
Norway	958	4.9	51.0	2.0	253.3
Switzerland	1 330	3.5	38.8	1.7	192.2
Serbia	1 049	1.7	36.3	3.2	173.2
Türkiye (1)	*3 346*	*1.4*	*20.2*	*1.4*	*98.0*

(1) 2019. Definition differs for standardised death rates (other than for persons aged < 65 years).

Source: Eurostat (online data codes: hlth_cd_aro and hlth_cd_asdr2)

eurostat

Table 4: Causes of death – malignant neoplasms of prostate, males, residents, 2020 Source: Eurostat (hlth_cd_aro) and (hlth_cd_asdr2)

Among the EU Member States, the share of deaths among males that were attributed to prostate cancer was as low as 1.6 % in Romania and 1.8 % in Malta and Bulgaria, with much higher shares in Sweden (4.5 %) and Denmark (4.9 %).

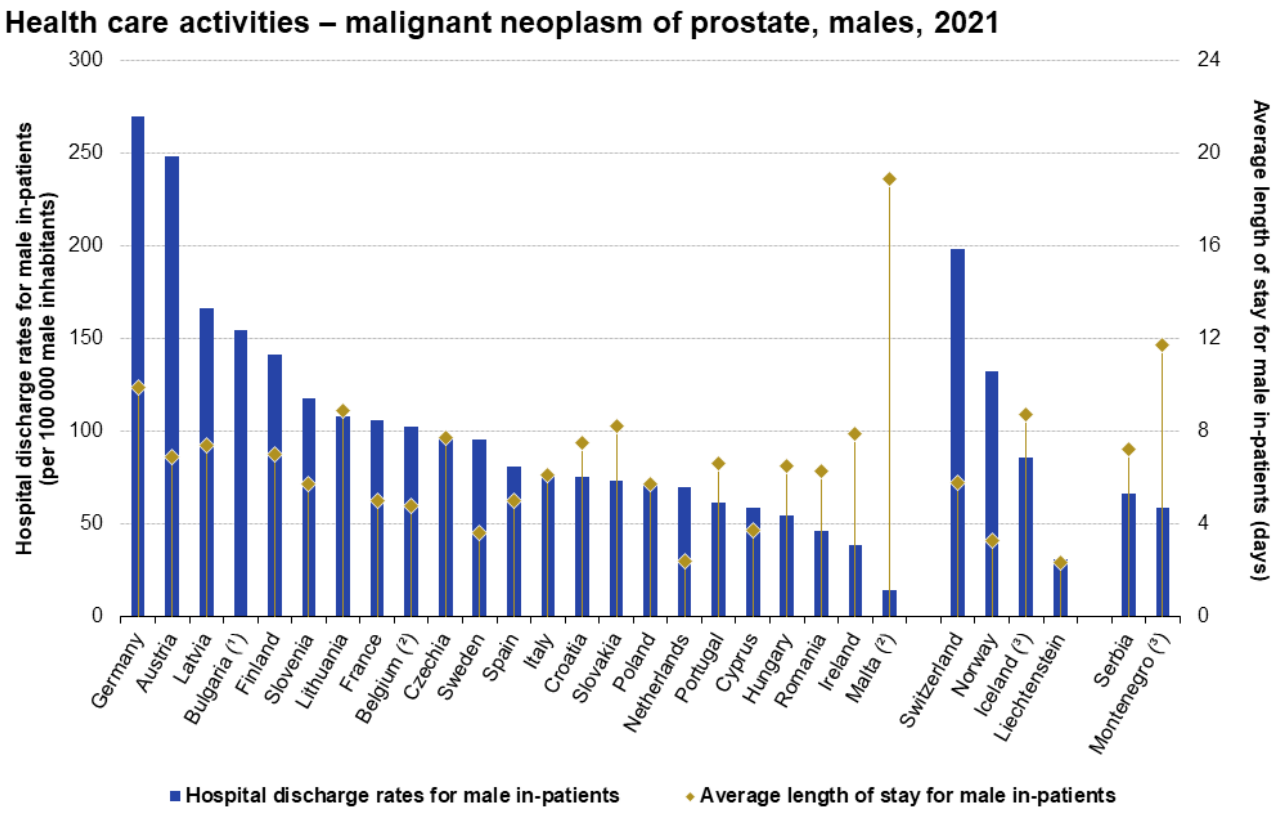
In 2020, the EU standardised death rate for prostate cancer was 36.2 per 100 000 male inhabitants, slightly lower than the equivalent rate for colorectal cancer (37.3 per 100 000 male inhabitants). As was the case for cancers as a whole, the standardised death rate for prostate cancer for men aged 65 years and over was many times higher than it was for younger males. When expressed as a ratio, the rate for men aged 65 years and over was 83 times as high as it was for younger males (aged less than 65 years).

Some of the highest standardised death rates for prostate cancer in 2020 were recorded across the Nordic and Baltic Member States , with rates above 50.0 per 100 000 male inhabitants recorded for all three Baltic Member States, two of the Nordic Member States (Denmark and Sweden), as well as Slovenia, Croatia and Slovakia. There were four southern EU Member States – Cyprus, Spain, Italy and Malta – that reported death rates for prostate cancer below 30.0 per 100 000 male inhabitants, the lowest rate was in Malta (23.0 per 100 000 male inhabitants).

As noted above, the standardised death rate in 2020 for males for prostate cancer in the EU was slightly lower than the equivalent rate for males for colorectal cancer. However, this was the case in a minority (11) of EU Member States: it was higher in the remaining 16 Member States. Sweden was the only EU Member State where the standardised death rate for males for prostate cancer was higher than the equivalent rate for males for lung cancer.

Germany and Austria report the highest in-patient discharge rates for prostate cancer

Based on available data for the EU Member States (2021 data except: 2020 data for Belgium and Malta; no recent data for Denmark, Estonia, Greece or Luxembourg), there were 259 900 discharges of prostate cancer in-patients. The highest rates were recorded in Germany (where around 270 in-patients per 100 000 male inhabitants were discharged) and Austria (almost 250 in-patients per 100 000 male inhabitants were discharged); see Figure 7. In 14 of the EU Member States for which recent data are available, the discharge rate for prostate cancer was below 100 discharges per 100 000 male inhabitants, dropping to less than 50 discharges per 100 000 male inhabitants in Romania,
Ireland and Malta (where the lowest rate was recorded, at 13.9 discharges per 100 000 male inhabitants; 2020 data).



Note: Denmark, Estonia, Greece and Luxembourg; not available.
(1) Average length of stay for male in-patients: not available.
(2) 2020 instead of 2021.
(3) 2019 instead of 2021.
Source: Eurostat (online data codes: hlth_co_disch2 and hlth_co_inpst)

Figure 7: Health care activities – malignant neoplasm of prostate, males, 2021 Source: Eurostat (hlth_co_disch2) and (hlth_co_inpst)

Compared with the average for all neoplasms, the average length of stay for prostate cancer in-patients is particularly long in Malta, Lithuania and Slovakia

In 2021, among the EU Member States for which data are available (see Figure 7 for more details concerning data availability), the average length of stay for male prostate cancer in-patients generally ranged from 4.8 days to 9.9 days; Malta (18.9 days; 2020 data) was above this range and Cyprus (3.7 days), Sweden (3.6 days) and the Netherlands (2.4 days) were below it.

Source data for tables and graphs

- Cancer statistics – specific cancers: 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.

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 II of the ICD covers neoplasms, including (among others) the following.

- C15–C26 Malignant neoplasms of digestive organs, including (among others)
  - C18 Malignant neoplasm of colon
  - C19 Malignant neoplasm of rectosigmoid junction
  - C20 Malignant neoplasm of rectum
  - C21 Malignant neoplasm of anus and anal canal
- C30–C39 Malignant neoplasms of respiratory and intrathoracic organs, including (among others)
  - C33–34 Malignant neoplasm of trachea, bronchus and lung
  - C50 Malignant neoplasm of breast
- C60–C63 Malignant neoplasms of male genital organs, including (among others)
  - C61 Malignant neoplasm of prostate

Healthcare resources and activities

Statistics on healthcare resources (such as personnel and medical equipment) and healthcare activities (such as information on surgical operations, 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 II covers neoplasms and includes the following headings (among others).

- Malignant neoplasm of colon, rectum and anus (0201)

- Malignant neoplasms of trachea, bronchus and lung (0202)
- Malignant neoplasm of breast (0204)
- Malignant neoplasm of prostate (0207)

The Healthcare non-expenditure statistics manual provides an overview of the classifications, both for mandatory variables and variables provided on voluntary basis.

Self-reported data on screening for colorectal cancer (referring to the population aged 50 to 74 years who reported having had a faecal occult blood test) come from the European health interview survey (EHIS) and are available for all of the EU Member States, Iceland, Norway, Serbia and Türkiye. 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.

Programme data

The data on screening for breast cancer (referring to the population aged 50 to 69 years) used in this article come from programme-based data. Breast cancer screening rates show the proportion of women (eligible for screening) that have been screened. This is based on the number of women aged 50–69 years who had received a bilateral mammography within the two years prior to the reference date (or according to the specific screening frequency recommended in each country) as a share of women eligible for an organised screening programme.

For country specific notes on these data collections, please refer to the annexes at the end of the national metadata reports accessible from links at the beginning of the European metadata report .

Symbols

Tables in this article use the following notation:

Value in*italics*	estimate or provisional data;
Value is :	not available.

Context

The most frequently occurring forms of cancer in the EU are lung, colorectal, breast, pancreas and prostate cancers. Among males, lung cancer is the most frequent causes of death from cancer; the standardised death rate in the EU in 2020 for lung cancer was approximately double that for colorectal cancer and prostate cancer. Among females, breast cancer and lung cancer are the most common causes of death.

Primary prevention offers the most cost-effective, long-term strategy for reducing the burden of diseases in the EU; it involves tackling major health determinants, such as smoking , unhealthy diets and physical inactivity . The European Commission has supported many projects related to health determinants and health promotion in general.

Secondary prevention aims to reduce mortality by early detection of cancer through screening. In December 2003, a Council Recommendation on cancer screening was adopted, setting out principles of best practice in the early detection of cancer. A proposal to update the 2003 Recommendation to reflect the latest available scientific advice was adopted by the European Council on 9 December 2022. Council Recommendation (2022/C 473/01) is a key element of the EU's Cancer Screening Scheme. The scheme is one of the flagship initiatives of the Europe's Beating Cancer Plan , a key pillar of a stronger European Health Union .

Other articles

Online publications

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

Health status – selected diseases and related health problems

- Cancer

Causes of death

- Causes of death
- Causes of death statistics by age group

Healthcare activities

- Hospital discharges and length of stay
- Cancer screening statistics

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

Publications

Atlas

- Health statistics – Atlas on mortality in the European Union

News releases

- 21% of cancer-related deaths due to lung cancer
- 66% of women in the EU aged 50–69 got a mammogram
- Breast cancer screening differs among Member States
- Deaths from prostate cancer in EU regions
- World Cancer Day: 1 in 4 deaths caused by cancer

Main tables

- Health (t_hlth), see:

Causes of death (t_hlth_cdeath)

Death due to cancer, by sex (tps00116)

Database

- Health (hlth), see:

Health care (hlth_care)

Health care resources (hlth_res)

Health care facilities (hlth_facil)

Health care activities (hlth_act)

Hospital discharges - national data (hlth_hosd)

Length of stay in hospital (hlth_hostay)

Operations, procedures and treatment (hlth_oper)

Preventive services (hlth_prev)

Preventive cancer screenings - programme data (hlth_ps_prev)

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 NUTS 2 region of residence (hlth_cd_asdr2)

Dedicated section

- Health

Methodology

Manuals and guidelines

- Healthcare non-expenditure statistics manual – Guidelines for completing the Joint questionnaire on non-monetary healthcare statistics – 2023 edition

Metadata

- Causes of death statistics (SIMS metadata file – hlth_cdeath_sims)
- European health interview survey (ESMS metadata file – hlth_det_esms)
- Healthcare non-expenditure statistics (ESMS metadata file – hlth_res_esms)

External links

- European Commission – Public health
  - European Commission – Cancer
  - European Commission – European core health indicators (ECHI)
- European Commission – Cancer screening
- OECD / European Commission report 'Health at a Glance: Europe 2022'
- OECD – Health policies and data
- World Health Organization (WHO) , see:
  - WHO – Global Health Observatory (GHO) – Global health estimates: life expectancy and leading causes of death and disability
  - WHO – Health system governance