

Healthcare personnel statistics - physicians

Statistics Explained

*Data extracted in August 2020.
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This article presents an overview of [European Union \(EU\)](#) statistics on [physicians](#) . It provides information on specialist healthcare personnel, as well as data pertaining to the number and ratio of graduates in this field (note that all physicians need to possess a degree in medicine).

Physicians are licensed to provide services to patients as consumers of healthcare, including: giving advice, conducting medical examinations and making diagnoses; applying preventive medical methods; prescribing medication and treating diagnosed illnesses; giving specialised medical or surgical treatment.

Physicians are split into two broad occupational groups:

- generalist medical practitioners, which can, in turn, be divided into:
 - general practitioners (GPs); and
 - other generalist medical practitioners;
- specialist medical practitioners, which can, in turn, be subdivided into:
 - medical specialists (doctors specialising in the diagnosis and non-surgical treatment of physical disorders and diseases);
 - surgical specialists (doctors who specialise in the use of surgical techniques to treat disorders and diseases).

This article is one of a set of statistical articles concerning healthcare resources in the EU which forms part of an online publication on [health statistics](#) .

Healthcare personnel

For [physicians](#) , Eurostat collects data for three concepts:

- ' [practising](#) ', in other words, physicians providing services directly to patients;
- ' [professionally active](#) ', in other words, 'practising' physicians plus physicians for whom their medical education is a prerequisite for the execution of their job;
- ' [licensed](#) ', in other words, physicians who are registered and entitled to practise as physicians.

In this article preference is given to the concept of 'practising' physicians which is also used for the [European core health indicator \(ECHI\)](#) on practising physicians. For some EU Member States data are not available for this concept and therefore data are presented for one of the alternative concepts instead: footnotes indicate these exceptions in each table and figure.

There were approximately 1.7 million physicians working in the EU

In 2018, there were approximately 1.7 million practising physicians in the EU-27 (2017 data for Luxembourg, Poland and Sweden; data for Slovakia refers to professionally active physicians; data for Greece, Portugal and Finland refers to physicians who are licensed to practise). The highest overall numbers of practising physicians were recorded in the largest EU Member States: Germany (357 000, equivalent to 21.1 % of the EU-27 total), followed at some distance by Italy (240 000), France (212 000) and Spain (188 000). Together, these four Member States accounted for close to three fifths (58.8 %) of the total number of practising physicians in the EU-27. The next highest number of practising physicians was in Poland, 90 000 (2017 data), equivalent to 5.3 % of the EU-27 total.

Physicians, by speciality, 2018

	(number)										(per 100 000 inhabitants)									
	Total	General practitioners	Other generalist medical practitioners	General paediatricians	Gynaecologists and obstetricians	Psychiatrists	Medical group of specialists	Surgical group of specialists	Other specialists not elsewhere classified	Total	General practitioners	Other generalist medical practitioners	General paediatricians	Gynaecologists and obstetricians	Psychiatrists	Medical group of specialists	Surgical group of specialists	Other specialists not elsewhere classified		
Belgium	35 762	13 178	0	1 566	1 495	1 969	10 679	6 933	0	313.0	115.3	0.0	13.9	13.1	17.2	88.2	80.7	0		
Bulgaria	29 625	4 199	123	1 735	1 742	724	11 162	8 292	1 648	421.7	59.8	1.8	24.7	24.8	10.3	158.9	118.0	23.5		
Czechia	42 919	6 991	0	1 424	3 059	1 572	16 319	11 640	227	403.8	65.7	0.0	13.4	28.8	14.8	153.4	109.5	2.1		
Denmark (*)	24 301	4 649	0	485	656	1 082	4 435	3 719	111	419.4	89.24	0	8.4	11.3	18.9	76.6	64.2	1.9		
Germany	357 491	58 940	23 818	14 093	21 197	22 756	115 204	99 216	2 178	431.1	71.1	28.7	17.0	25.6	27.5	139.0	119.7	2.6		
Estonia	4 605	964	133	163	304	253	1 680	1 108	0	348.3	72.9	10.1	12.3	23.0	19.1	127.1	83.8	0.0		
Ireland	15 962	4 081	4 884	492	374	806	2 969	2 270	66	327.9	83.8	100.3	10.1	7.7	16.6	61.0	46.6	1.4		
Greece	65 513	3 642	748	4 278	3 412	2 768	28 725	15 455	523	610.4	33.9	7.0	39.9	31.8	25.8	267.6	144.0	4.9		
Spain (*)	188 166	35 798	0	12 610	5 782	5 117	51 549	45 639	664	402.1	76.5	0.0	27.0	12.4	10.9	110.2	90.0	1.4		
France	212 337	59 399	35 524	8 134	8 036	19 315	51 414	32 030	2 485	317.1	88.7	53.1	12.2	12.0	22.9	76.8	47.8	3.7		
Croatia	14 075	2 478	1 029	898	826	657	5 181	2 979	27	344.1	60.6	25.2	22.0	20.2	16.1	126.7	72.8	0.7		
Italy	240 301	42 987	10 011	16 968	12 209	10 322	87 722	60 082	0	397.7	71.1	16.6	28.1	20.2	17.1	145.2	99.4	0.0		
Cyprus	3 544	912	0	253	188	101	1 122	968	0	407.3	104.8	0.0	29.1	21.6	11.6	129.0	111.3	0.0		
Latvia	6 367	1 411	0	249	389	309	1 846	1 383	780	330.4	73.2	0.0	12.9	20.2	16.0	95.8	71.8	40.5		
Lithuania	12 881	2 500	324	710	684	653	4 633	3 113	204	459.8	91.4	11.6	25.3	24.4	23.3	165.4	111.1	7.3		
Luxembourg (**)	1 780	534	0	88	101	128	513	406	0	298.5	89.6	0.0	16.4	16.9	21.5	86.0	68.1	0.0		
Hungary	33 078	4 390	2 706	2 363	1 497	1 461	12 705	6 795	1 062	338.4	44.9	27.7	24.4	15.3	15.0	130.0	89.5	10.9		
Malta	1 925	396	0	87	79	55	417	420	0	397.2	81.7	0.0	18.0	16.3	11.4	86.1	86.7	0		
Netherlands	63 233	15 091	13 617	1 818	1 645	4 162	15 881	7 296	3 723	367.0	87.6	79.0	10.6	9.6	24.2	92.2	42.3	21.6		
Austria	46 337	7 163	7 843	1 313	1 838	1 588	9 728	8 704	75	524.1	81.0	88.7	14.9	20.8	18.0	110.0	98.5	0.9		
Poland (*)	90 284	8 418	7 490	5 487	4 976	3 504	39 508	20 592	299	237.8	22.2	19.7	14.5	13.1	9.2	104.0	54.2	0.8		
Portugal	52 966	25 123	2 541	2 135	1 837	1 379	12 789	7 866	808	515.0	244.3	24.7	20.8	17.9	13.4	124.4	76.5	7.9		
Romania	59 333	12 026	2 885	2 710	2 697	2 313	23 861	12 253	608	304.7	61.8	14.7	13.9	13.9	11.9	122.5	82.9	3.1		
Slovenia	6 591	1 275	130	660	378	306	2 233	1 391	44	317.8	61.5	6.3	31.8	18.2	14.8	107.7	67.1	2.1		
Slovakia	19 178	0	0	0	0	0	0	0	0	352.1	0	0	0	0	0	0	0	0		
Finland (**)	25 627	6 837	0	696	656	1 293	4 322	3 088	394	464.6	124.8	0	12.7	13.6	23.6	78.9	56.4	7.2		
Sweden (*)	42 898	6 411	0	1 083	1 441	2 360	9 985	6 758	1 042	426.5	63.7	0.0	10.8	14.3	23.5	89.3	67.2	10.4		
United Kingdom (*)	188 783	49 569	0	10 893	7 809	11 948	48 916	54 457	6 315	284.1	74.6	0	16.1	11.8	18.0	72.3	81.9	9.5		
Iceland	1 373	218	0	15	54	83	392	258	0	389.3	61.8	0	4.3	15.3	23.5	111.1	73.2	0.0		
Liechtenstein (*)	135	25	19	5	8	14	34	30	0	353.0	65.4	49.7	13.1	20.9	36.6	88.9	78.4	0.0		
Norway	25 538	4 218	473	925	641	1 375	4 501	3 012	423	480.8	79.4	8.9	17.4	12.1	25.9	84.7	56.7	8.0		
Switzerland (**)	36 940	9 683	0	1 869	1 896	4 454	6 695	7 084	198	433.9	113.7	0	22.0	22.3	52.3	78.6	83.2	2.3		
Montenegro	1 720	336	0	183	117	71	684	339	0	276.4	54.0	0.0	29.4	18.8	11.4	109.9	54.5	0.0		
North Macedonia (**)	6 219	2 032	0	428	405	190	1 983	997	184	299.8	97.95	0	20.6	19.5	9.2	95.6	48.1	8.9		
Serbia	20 824	4 839	1 352	1 890	1 250	847	5 552	3 842	1 243	298.2	89.3	19.4	27.1	18.0	12.1	79.5	55.0	17.8		
Turkey (*)	153 128	46 688	0	8 312	7 785	4 434	44 348	36 093	3 468	188.1	59.8	0	10.2	9.6	5.5	54.5	44.3	4.3		

Note: practising physicians except Slovakia, North Macedonia and Turkey (professionally active physicians), Greece, Portugal and Finland (physicians licensed to practise).

(*) General practitioners: includes also other generalist medical practitioners.

(*) Except for the total, generalist medical practitioners and general paediatricians: only includes physicians working in hospitals.

(*) 2017.

(*) Medical group of specialists: physicians working in laboratories (such as microbiologists, pathologists and haematologists) are excluded.

(*) Total: 2018. All remaining data are for 2015 and professionally active physicians.

(*) Except for the total: physicians licensed to practise.

(*) Except for the total: excludes physicians in training.

Source: Eurostat (online data codes: hlth_rs_prs1 and hlth_rs_spec)

Table 1: Physicians, by speciality, 2018 Source: Eurostat (hlth_rs_prs1) and (hlth_rs_spec)

Greece had the highest number of physicians per 100 000 inhabitants

On the basis of a comparison in relation to population numbers, Greece (physicians licensed to practise) recorded the highest number of physicians among the EU Member States, at 610 per 100 000 inhabitants in 2018. This

was considerably higher than in any of the other EU Member States; Austria (524) and Portugal (515 physicians licensed to practise) had the next highest ratios and along with Finland (465, licensed to practise) and Lithuania (460) were the only other Member States to record over 450 physicians per 100 000 inhabitants. By contrast, there were fewer than 300 practising physicians per 100 000 inhabitants in two Member States, namely Luxembourg and Poland where the rates were 298 and 238 physicians per 100 000 inhabitants respectively in 2017.

The ratio of the number of physicians to the number of inhabitants rose in each of the EU Member States between 2013 and 2018

The number of physicians per 100 000 inhabitants increased in each of the EU Member States between 2013 and 2018 (see Figure 1). Note that these increases could result from a higher absolute number of physicians or from a smaller total number of inhabitants and that in Cyprus, Luxembourg and Hungary there were also breaks in the time series.

Practising physicians, 2013 and 2018
(per 100 000 inhabitants)

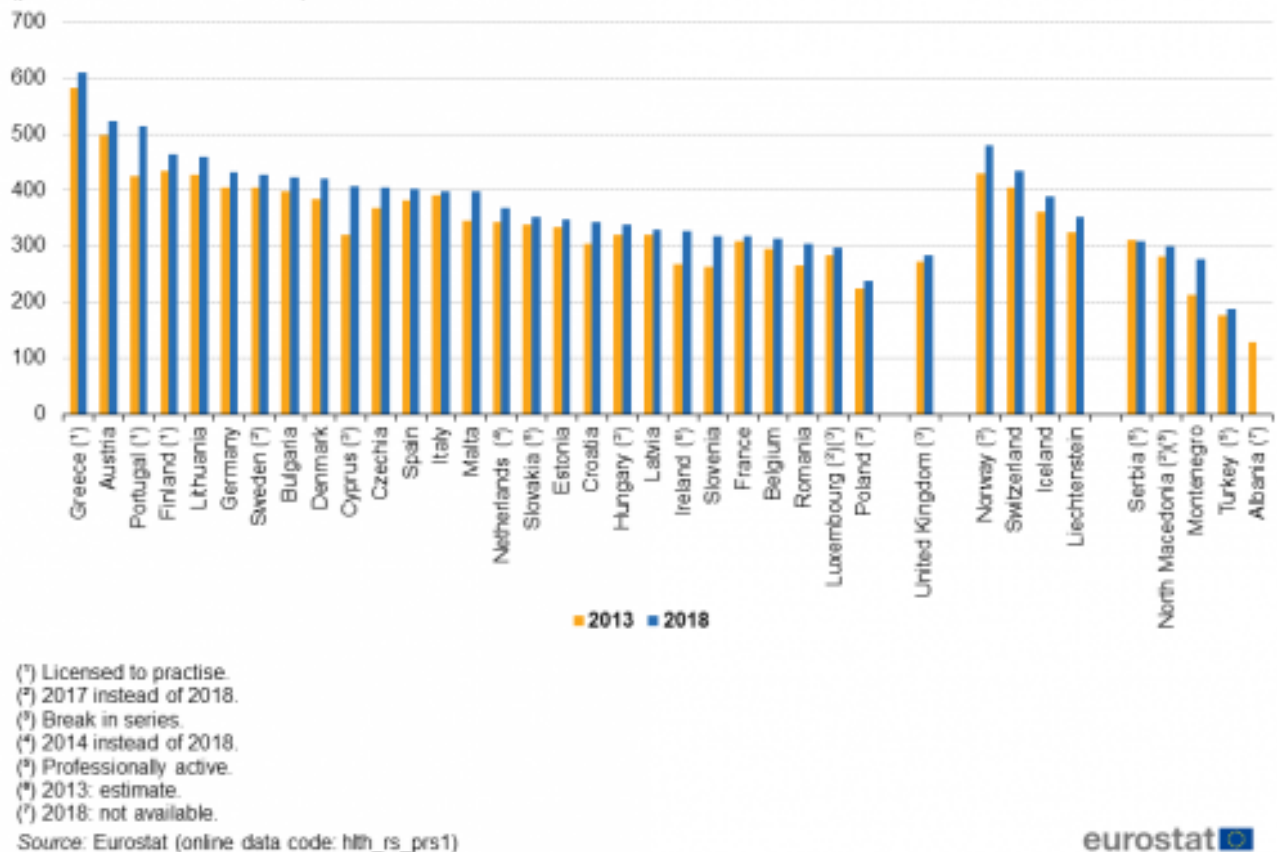


Figure 1: Practising physicians, 2013 and 2018 (per 100 000 inhabitants) Source: Eurostat (hlth_rs_prs1)

The largest relative increase for this ratio was recorded in Cyprus, where the number of practising physicians rose from 320 per 100 000 inhabitants to 407 per 100 000 inhabitants (an overall increase of 27.5 %), but it should be noted that there was a break in series. Ireland, Portugal (physicians licensed to practise) and Slovenia also recorded increases of more than 20 % during the period under consideration. By contrast, the number of physicians relative to the total number of inhabitants was almost unchanged in Italy and France, with overall increases of less than 3.0 %. In general, these figures can be viewed within the context of demographic ageing, whereby a higher proportion of the EU's population is living longer and the elderly account for a growing share of the total number of inhabitants, thereby leading to increased demands for health and social care services.

In a small majority of EU Member States, there were more medical specialists than general medical practitioners

Generalist medical practitioners do not limit their practice to certain disease categories or methods of treatment, and may assume responsibility for the provision of continuing and comprehensive medical care to individuals, families and communities. By contrast, medical specialists include doctors who specialise in the diagnosis and non-surgical treatment of physical disorders and diseases, for example specialists in internal medicine, cardiology, oncology and radiology, whereas surgical specialists include doctors who specialise in the use of surgical techniques to treat disorders and diseases, for example, specialists in general surgery, neurological surgery, plastic surgery, anaesthesiology as well as accident and emergency medicine.

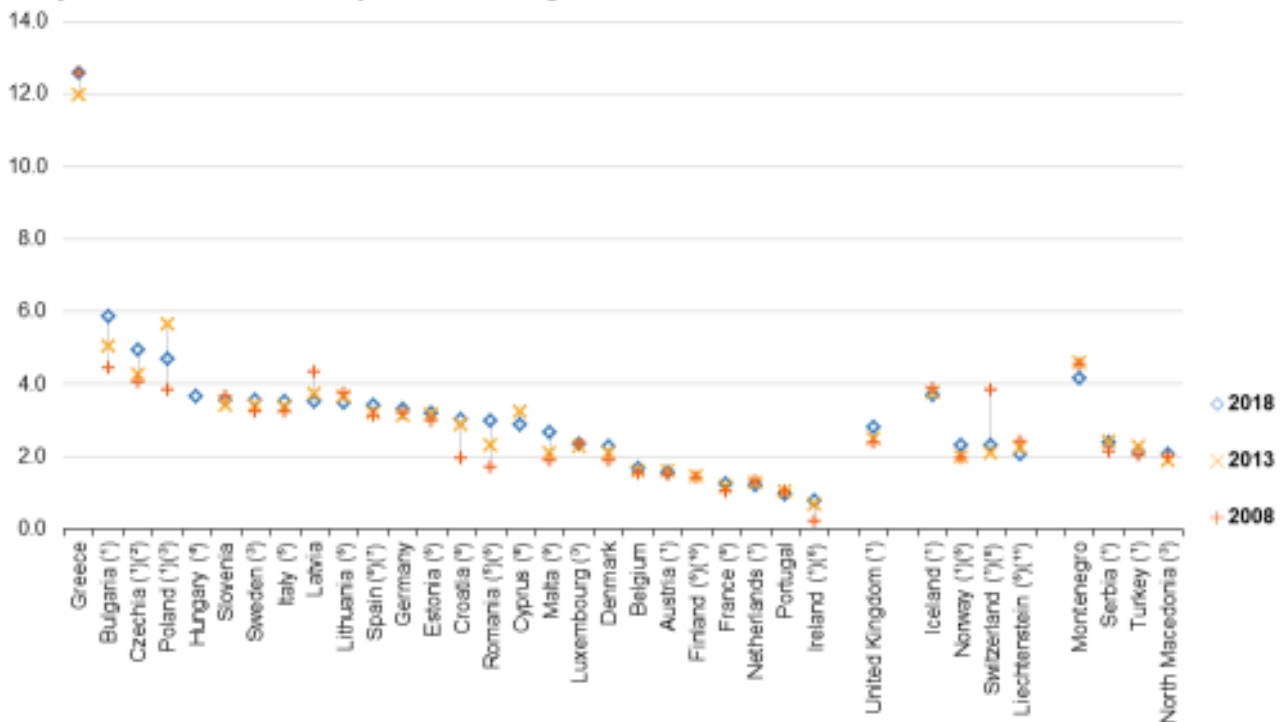
A closer examination of the data in Table 1 reveals that in 2018 there were approximately 330 000 general practitioners (GPs) across the EU (no detailed data by specialism for Slovakia; 2017 data for Luxembourg, Poland and Sweden; 2015 data for Finland; data for Greece and Portugal refer to physicians who are licensed to practise; data for Finland refer to professionally active physicians). Contrary to the overall figures for the total number of physicians, the highest number of GPs was recorded in France (59 400), followed by Germany (58 900). The share of GPs in the total number of physicians was relatively high in France (28.0 %), with greater concentrations of GPs (relative to the total number of physicians) recorded in Luxembourg (30.0 %; 2017 data), Belgium (36.8 %), Finland (37.4 %; 2015 data) and Portugal (47.4 %).

In 2018, there were six EU Member States where the most common type of physician was GPs: Belgium, Denmark, France, Luxembourg (2017 data), Portugal and Finland (2015 data); note that the GPs data for Denmark and Finland also include other generalist medical practitioners. Among these Member States, the highest ratio of GPs relative to the overall population was recorded in Portugal (244 physicians licensed to practise per 100 000 inhabitants), followed by Finland (125 physicians licensed to practise per 100 000 inhabitants; 2015 data) and Belgium (115 practising physicians per 100 000 inhabitants). By contrast, there were more medical specialists and/or surgical specialists in the remaining Member States for which data are available (no data for Slovakia). In 2018, the highest ratios for medical and for surgical specialists were both recorded in Greece (268 and 144 physicians licensed to practise per 100 000 inhabitants) followed by Lithuania, Bulgaria and Czechia for medical specialists (165, 159 and 155 per 100 000 inhabitants) and by Germany, Bulgaria, Cyprus, Lithuania and Czechia for surgical specialists (each with more than 100 per 100 000 inhabitants).

A widespread — but not uniform — increase in the ratio of specialists to generalists

Figure 2 shows the development of the ratio of specialist to generalist physicians for three reference periods (data for Czechia, Greece and Portugal refer to physicians who are licensed to practise and data for Finland refer to professionally active physicians; incomplete data for Cyprus, Hungary and Finland; no data for Slovakia). Note that specialists for this analysis include not only medical and surgical specialists, but also other specialist physicians such as paediatricians, gynaecologists, obstetricians and psychiatrists.

Physicians — ratio of specialists to generalists, 2008, 2013 and 2018



Note: practising physicians except Slovakia, Finland, North Macedonia and Turkey (professionally active physicians), Czechia, Greece and Portugal (physicians licensed to practise). Slovakia: not available.

(*) 2018: break in series.

(**) 2018: estimate.

(*) 2017 instead of 2018.

(*) 2008 and 2013: not available.

(*) 2008: estimate.

(*) 2013: break in series.

(*) 2018: provisional. Data on specialists refer only to physicians working in hospitals.

(*) 2008: not available. 2014 instead of 2013.

(*) 2009 instead of 2008.

(*) 2013: estimate. 2018: not available.

(*) 2008: data on generalists exclude interns.

Source: Eurostat (online data code: hlth_rs_spec)

eurostat

Figure 2: Physicians — ratio of specialists to generalists, 2008, 2013 and 2018 Source: Eurostat (hlth_rs_spec)

Apart from Ireland and Portugal (physicians licensed to practise), there were more specialist physicians than generalist physicians in 2018 in each of the EU Member States. Over time there has been a widespread — but not uniform — movement towards more specialist physicians relative to generalist physicians. In a majority of the EU Member States there was an increase in the ratio of the number of specialists relative to the number of generalists between the years shown in Figure 2. In relative terms, this was particularly clear in Ireland, Romania and Croatia (note that each of these had at least one break in series during the period under consideration). By contrast, there were seven Member States where there was a decline in the ratio of specialists to generalists — Lithuania and the Netherlands (both of which had a break in series), Greece, Latvia, Luxembourg (2008-2017), Portugal and Slovenia.

Italy had the highest share of physicians aged 55 years and over

There has been a rapid ageing of the (healthcare) workforce across much of the EU as the baby-boom generation has started to reach retirement age. This is reflected in the estimated share of physicians who were aged 55 years and over, which rose from 32 % in 2008 to 41 % by 2018; this comparison is based on information for 19 EU Member States which accounted for 84 % of all physicians in 2018 and also uses alternative reference periods for some countries to complete the data set. The share of physicians aged 55 years and over in the total number of physicians was within the range of 43-47 % in Lithuania, Luxembourg (2017 data), Hungary, Belgium, France, Cyprus, Germany, Estonia and Latvia, while a majority of all physicians in Bulgaria (51 %) and Italy (56 %) were aged 55 years and over. In most of the remaining EU Member States for which data are

available, the relative importance of this age group in the total number of physicians was between 22 % and 35 %.

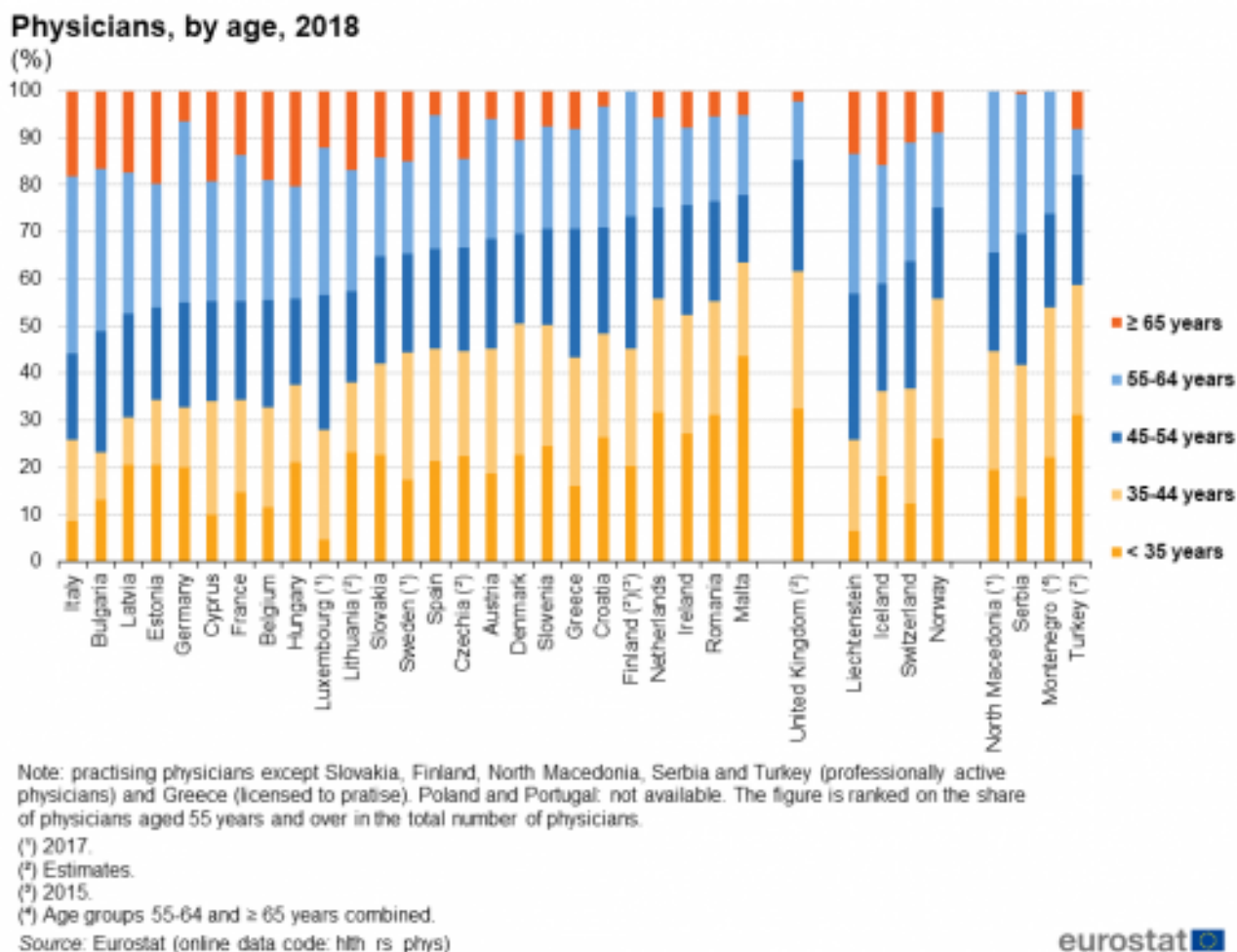
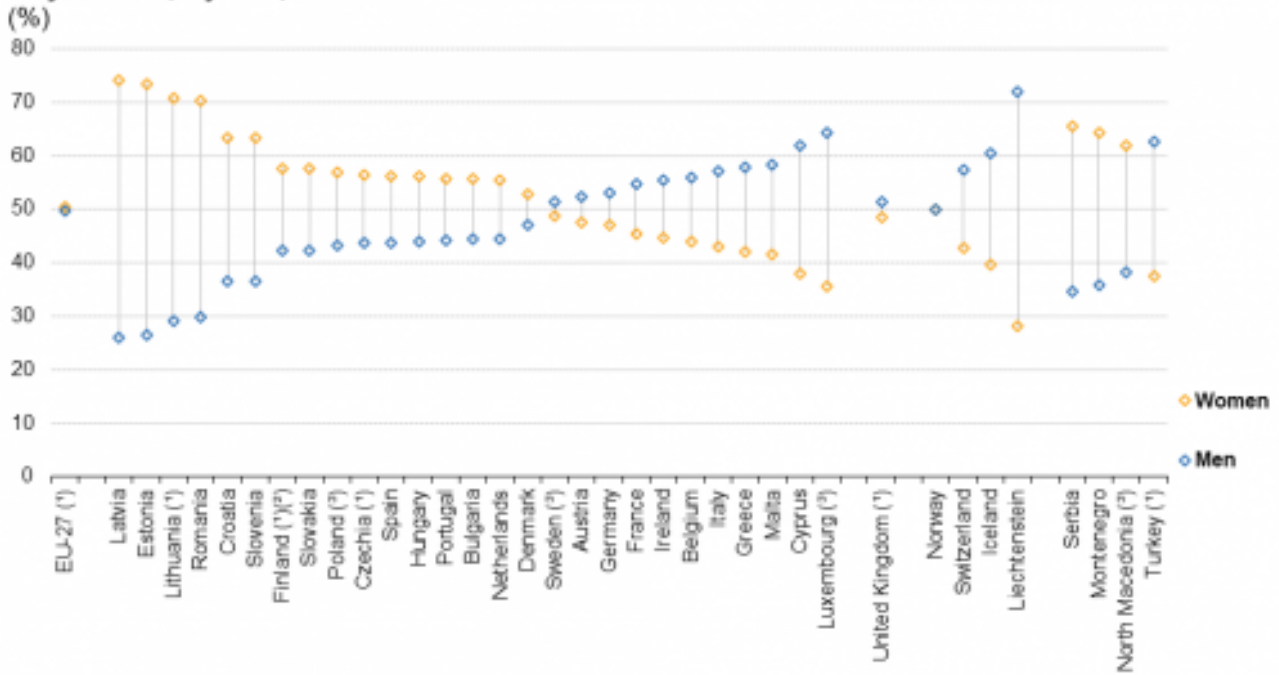


Figure 3: Physicians, by age, 2018 (%) Source: Eurostat (hlth_rs_phys)

More than two thirds of the total number of physicians in Latvia, Estonia, Lithuania and Romania were women

The analysis presented in Figure 4 shows that there were considerable differences between EU Member States with respect to each sex's share of the total number of physicians. Between 2008 and 2018, the proportion of female physicians in the total number of physicians generally rose. By 2018, a slight majority (16) of the EU Member States reported that they had a higher number of female (rather than male) physicians (2017 data for Poland and Sweden; 2015 data for Finland). In Croatia and Slovenia, more than three fifths of all physicians were women; in Romania and the [Baltic Member States](#), this share passed two thirds, with peaks in Estonia (73 %) and Latvia (74 %). By contrast, the highest share of male physicians (64 %) was recorded in Luxembourg, while relatively high shares for men were also recorded in Cyprus (62 %), as well as in Malta, Greece, Italy, Belgium, Ireland and France (all within the range of 55-58 %).

Physicians, by sex, 2018



Note: practising physicians except Slovakia, Finland, North Macedonia, Serbia and Turkey (professionally active physicians) and Greece (licensed to practise).

(*) Estimates.

(*) 2015.

(*) 2017.

Source: Eurostat (online data code: hlth_rs_phys)

eurostat

Figure 4: Physicians, by sex, 2018 (%) Source: Eurostat (hlth_rs_phys)

Hospitals employed more than half of the total number of physicians in the majority of EU Member States

Table 2 provides further information in relation to the number of medical doctors who were employed in hospitals; note that these data refer to the number of physicians directly employed by a hospital and physicians with service contracts (for example, self-employed physicians employed to treat hospital patients). There are no data available for Luxembourg or Sweden.

Medical doctors employed in hospitals accounted for just over four fifths (83 %) of the total number of physicians in France, close to three quarters (74 %) in Denmark, at least two thirds in Estonia (69 %) and Lithuania (67 %) and just under two thirds in Malta (65 %). By contrast, medical doctors employed in hospitals accounted for around one quarter of the total number of physicians in Cyprus (24 %) and Belgium (also 21 %); elsewhere among the EU Member States the share ranged from 36 % to 62 %.

In 2018, the highest absolute number of medical doctors employed in hospitals was recorded in Germany (196 000) ahead of France (176 100), Italy (134 400) and Spain (111 800), and followed at some distance by Poland, with 40 400 medical doctors employed in hospitals.

Medical doctors employed in hospitals, 2008, 2013 and 2018

	Head count (number)			Full-time equivalents (number)			Full-time equivalents (per 100 000 inhabitants)		
	2008	2013	2018	2008	2013	2018	2008	2013	2018
Belgium	7 254	7 565	7 501	6 015	6 308	7 088	56.2	56.5	62.0
Bulgaria	13 706	15 668	16 960	..	..	..	..	..	..
Czechia (*)	20 782	22 069	26 521	19 053	20 377	22 717	183.5	193.8	213.7
Denmark	13 598	15 637	17 665	13 376	15 120	17 094	243.5	269.3	295.1
Germany (*)	148 000	174 090	196 000	136 000	155 000	170 000	165.6	192.2	205.7
Estonia (*)	3 015	2 951	3 161	2 772	2 502	2 557	207.3	189.8	193.4
Ireland	6 524	6 778	8 618	6 057	6 302	8 206	134.9	136.3	168.6
Greece	26 063	25 151	23 354	..	..	..	..	..	..
Spain (*)	97 939	102 411	111 795	..	..	..	..	..	..
France (*)	157 554	166 847	176 089	107 502	121 137	133 123	167.5	183.9	198.8
Croatia	6 695	7 643	8 714	..	..	..	..	..	..
Italy	127 705	127 686	134 389	..	..	..	..	..	..
Cyprus (*)	618	797	842	618	796	842	78.6	92.4	96.8
Latvia	..	3 523	3 758	..	..	..	..	..	..
Lithuania	7 386	8 171	8 650	9 645	10 007	9 761	301.6	338.3	348.4
Luxembourg	..	..	..	..	..	..	..	..	..
Hungary	15 179	19 313	20 180	13 564	17 209	17 342	135.1	174.0	177.4
Malta (*)	636	969	1 255	615	887	1 178	149.1	206.2	243.1
Netherlands	20 642	24 524	23 103	18 706	23 222	21 662	113.7	138.2	125.8
Austria	21 103	23 676	25 079	19 938	21 514	23 111	239.6	253.7	261.4
Poland (*)	42 963	42 873	40 367	..	..	..	..	..	..
Portugal	21 100	21 907	26 879	..	..	..	..	..	..
Romania	24 389	26 282	29 667	24 112	26 011	29 342	112.1	130.2	150.7
Slovenia	2 811	2 988	3 878	..	..	..	..	..	..
Slovakia (*)	..	..	..	7 770	8 749	9 309	144.4	161.6	170.9
Finland (*)	7 716	7 863	..	7 948	7 491	..	149.5	137.7	..
Sweden	..	..	..	..	..	..	..	..	..
United Kingdom (*)	120 074	125 187	137 654	112 792	118 086	129 312	161.1	164.1	194.6
Iceland	766	765	969	587	546	696	184.9	168.8	197.2
Liechtenstein	9	17	22	9	12	19	25.3	32.7	49.9
Norway (*)	11 000	11 986	14 163	10 638	11 631	14 049	223.1	239.0	264.5
Switzerland (*)	18 523	22 853	27 933	16 563	19 026	22 731	216.6	235.2	267.0
Montenegro	671	724	966	..	..	..	..	..	..
North Macedonia (*)	2 003	1 951	2 137	..	..	..	..	..	..
Albania (*)	1 754	1 672	..	..	..	..	..	..	..
Serbia	10 702	11 549	11 746	10 565	11 379	11 483	143.7	158.8	164.5
Turkey (*)	89 939	104 177	121 599	..	..	..	..	..	..

(*) 2016: break in series.

(*) 2017 instead of 2018.

(*) 2013: break in series.

(*) 2009 instead of 2008.

(*) Excluding self-employed doctors.

Source: Eurostat (online data code: hlth_rs_prshp1)

Table 2: Medical doctors employed in hospitals, 2008, 2013 and 2018 Source: Eurostat (hlth_rs_prshp1)

Although information is only available for 22 EU Member States (see Table 2 for data availability), this shows that — with the exceptions of Greece and Poland (2008-2017) — the number of medical doctors employed in hospitals increased between 2008 and 2018. In absolute terms, the largest increases in doctor numbers were recorded in Germany (an additional 48 000 hospital doctors; 2008-2017), France (18 500 more) and Spain (13 900 more); note that there is a break in series for both France and Spain. In relative terms, the fastest growth rates were recorded in Malta (2009-2018), Slovenia and Cyprus, where the number of medical doctors employed in hospitals increased by at least 35 % overall during the period under consideration (note that there is a break in series for Cyprus).

The availability of data converted into **full-time equivalent (FTE)** units indicates that physicians working in hospitals generally worked close to full-time: among the 14 EU Member States with data available for 2018 (or another recent year), the ratio between the data in head counts and that in full-time equivalents was often 81 % or higher, the one exception being France where it was lower (76 %). As such, despite Germany having some 11 % more medical doctors employed in hospitals than France when measured as a head count, after converting to full-time equivalents the number in Germany was around 28 % higher.

A comparison between 2008 and 2018 for the number of medical doctors employed in hospitals expressed in full-time equivalents confirmed the pattern of an increase (as observed for the data based on head counts). In 14 of the 15 EU Member States for which data are available (see Table 2 for data availability), the number of doctors in full-time equivalents increased between 2008 and 2018, the exception being Estonia (note that there is a break in series). The number of doctors as measured in full-time equivalents grew by at least 16 % overall

in 13 of the remaining 14 Member States, with only Lithuania recording a smaller increase. Growth of 35 % and 36 % was recorded in Ireland and Cyprus (note that there is a break in series), while the fastest growth in the number of medical doctors employed in hospitals in full-time equivalents was in Malta, where the number nearly doubled, increasing 92 % between 2009 and 2018.

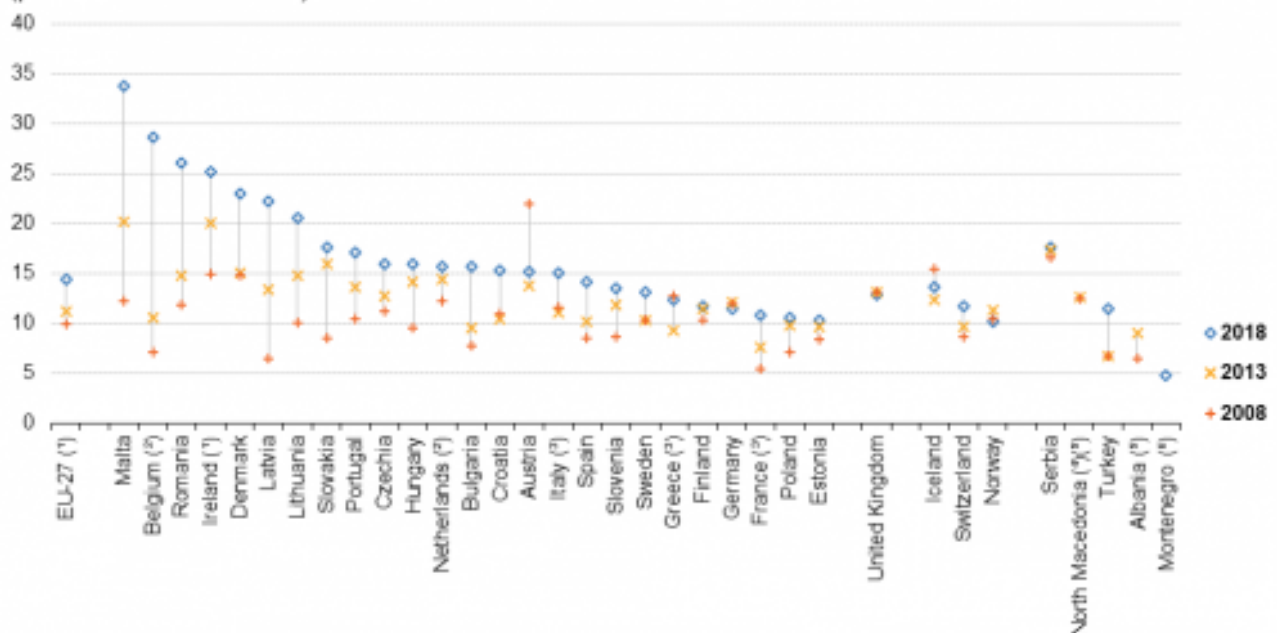
The final three columns in Table 2 show the number of medical doctors employed in hospitals in full-time equivalents calculated as a ratio per 100 000 inhabitants. In general, this number ranged between 126 and 261 medical doctors per 100 000 inhabitants in 2018 (see Table 2 for data availability), with Cyprus and Belgium recording values less than the lower limit of this range and Denmark and Lithuania recording values above it (peaking in Lithuania at 348 full-time equivalent medical doctors employed in hospitals per 100 000 inhabitants).

Health graduates

Some EU Member States face concerns over a lack of supply in relation to the expected future number of physicians available to their healthcare workforces. This has led some to promote measures designed to encourage more students to follow medical degrees.

Figure 5 provides information on the number of medical doctors graduating per 100 000 inhabitants. In 2018, there were an estimated 14.4 medical doctors graduating in the EU-27 for every 100 000 inhabitants. The highest ratios were recorded in Malta (33.8 medical graduates per 100 000 inhabitants), Belgium (28.7 %), Romania (26.1) and Ireland (25.2). Most of the remaining EU Member States for which data are available recorded ratios of 10.0-23.0 graduates per 100 000 inhabitants, although no medical students graduated in Cyprus or Luxembourg.

Graduates — medical doctors, 2008, 2013 and 2018
(per 100 000 inhabitants)



Note: Cyprus, Luxembourg and Liechtenstein, 0.0 graduates per 100 000 inhabitants for each year.

(*) 2018: estimate.

(**) 2018: break in series.

(***) 2017 instead of 2018.

(****) 2012 instead of 2013.

(*) 2018: not available.

(**) 2008 and 2013: not available.

Source: Eurostat (online data code: hlth_rs_grd)

eurostat

Figure 5: Graduates — medical doctors, 2008, 2013 and 2018 (per 100 000 inhabitants) Source: Eurostat (hlth_rs_grd)

A comparison between 2008 and 2018 shows that the number of medical doctors graduating per 100 000 inhabitants rose in nearly all of the EU Member States; note that in some Member States this may have reflected a fall in the total population as opposed to or in addition to an increase in the number of graduates. In relative terms, the biggest increases were recorded in Belgium (note that there is a break in series), Latvia, Malta and Romania. The only Member States to report a lower ratio of medical graduates to population in 2018 than in 2008 were Austria, Germany and Greece (2017 compared with 2008).

Source data for tables and graphs

- [Physicians: tables and figures](#)

Data sources

Key concepts

Practising physicians provide services directly to patients. They include people who have completed studies in medicine at university level and who are licensed to practise, be they salaried or self-employed, irrespective of the place of service provision. Unemployed physicians, retired physicians and students who have yet to graduate are excluded, as are physicians working in administration, research and other posts that exclude direct contact with patients.

Employment data cover the number of health care staff (head counts) and the number of [full-time equivalent \(FTE\)](#) persons directly employed in hospitals (both general and specialised hospitals); the self-employed working in hospitals are also included, for example, those working with service contracts as non-employed health professionals.

Data on medical graduates for any given year cover the number of students who have graduated in medicine from medical faculties or similar institutions. The data exclude those who have graduated in pharmacy, dentistry/stomatology, or public health and epidemiology, as well as individuals who have completed post-graduate studies or training in medicine.

Healthcare resources

Statistics on healthcare resources (such as personnel and medical equipment) 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.

Common definitions have been agreed between [Eurostat](#), the [OECD](#) and the [World Health Organisation \(WHO\)](#) with respect to the employment of various health care professionals. Three main concepts are used to present this data; Eurostat gives preference to the concept of 'practising' physicians:

- ' [practising](#) ', in other words, health care professionals providing services directly to patients;
- ' [professionally active](#) ', in other words, 'practising' professionals plus health care professionals for whom their medical education is a prerequisite for the execution of their job;
- ' [licensed](#) ', in other words, health care professionals who are registered and entitled to practise as health care professionals.

Data on physicians are classified according to the [International Standard Classification of Occupations \(ISCO\)](#); they are defined under ISCO 08 as code 221:

- 221 Medical doctor;
- 2211 Generalist medical practitioner;
- 2212 Specialist medical practitioner.

For country specific notes, please refer to these background information documents:

- [physicians](#) ;

- [health personnel employed in hospitals](#) ;
- [health graduates](#) .

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

Some health professionals seek jobs in other EU Member States: aside from the potential benefits for the individuals concerned, their movement can help rectify labour market imbalances between countries. [Directive 2005/36/EC](#) on the recognition of professional qualifications provides an EU-wide legal framework enabling Member States to recognise each other's qualifications. A range of health professionals — including doctors — enjoy automatic recognition, in other words, if they are a certified practitioner in their home country then they are automatically entitled to practise anywhere else in the EU. The directive defines basic medical training as comprising a total of at least six years of university study or 5 500 hours of theoretical and practical training.

In the coming decades, population ageing is expected to be a major challenge for the EU's health sector. The demand for healthcare will probably increase substantially as a result of an ageing population and at the same time the proportion of the people in work will probably decline. As a result, there could be staff shortages in certain medical specialisations or geographic areas. In 2018, just over two fifths of all doctors in the EU were aged 55 years and over. According to the European Commission's Directorate-General for Health and Food Safety, more than 60 000 doctors (or 3.2 % of the workforce) were expected to leave the profession each year during the period 2018-2020.

An [action plan for the EU health workforce](#) seeks to help EU Member States tackle this challenge, by: improving workforce planning and forecasting; anticipating future skills' needs; improving the recruitment and retention of health professionals; mitigating the negative effects of migration on health systems.

Other articles

Online publications

- [Health in the European Union — facts and figures](#)
- [Disability statistics](#)

Healthcare human and physical resources

- [Nursing and caring professionals](#)
- [Dentists, pharmacists and physiotherapists](#)
- [Beds](#)
- [Medical technology](#)

Methodology

- [Healthcare non-expenditure](#)

General health statistics articles

- [Health statistics introduced](#)
- [Health statistics at regional level](#)
- [The EU in the world — health](#)

Main tables

- [Health](#) (t_hlth)

Health care (t_hlth_care)

Database

- [Health](#) (hlth)

Health care (hlth_care)

Health care resources (hlth_res)

Health care staff (hlth_staff)

Health personnel employed in hospital (hlth_rs_prshp1)

Physicians by medical speciality (hlth_rs_spec)

Physicians by sex and age (hlth_rs_phys)

Health graduates (hlth_rs_grd)

Dedicated section

- [Health](#)

Methodology

- [Healthcare resources](#) (ESMS metadata file — hlth_res)

External links

European Union, OECD and WHO

- [European Commission — Directorate-General for Health and Food Safety — European core health indicators \(ECHI\)](#)
- [European Commission — Directorate-General for Health and Food Safety — Health workforce](#)
- [OECD — Health policies and data](#)
- [WHO Global Health Observatory \(GHO\) — Health system governance](#)
- [World Health Organisation \(WHO\) — Health workforce](#)

Other external links

- [European Association of Senior Hospital Physicians](#)
- [The European Union of General Practitioners \(UEMO\)](#)
- [The Standing Committee of European Doctors \(CPME\)](#)