This article presents an overview of European Union (EU) statistics on dentists, pharmacists and physiotherapists. It provides information on specialist healthcare personnel, as well as data pertaining to dentistry and pharmacy graduates.

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 dentists and pharmacists, Eurostat collects data for three concepts:

- **'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.

In this article preference is given to the concept of ‘practising’ health care professionals. 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.

Table 1 provides an overview for 2016 of the number of practising dentists and pharmacists as well as the number of physiotherapists. Based on the sum of available data (see Table 1 for more details of the coverage, in particular details relating to those EU Member States which publish data for professionally active or licensed to practice healthcare professionals), there were over 360 000 practising dentists in the EU Member States, while there were over 450 000 practising pharmacists and there were 554 000 physiotherapists in the EU-28 (2015 data). As such, the combined number of practising dentists, pharmacists and physiotherapists (1.4 million) remained below the total number of practising physicians (1.8 million).
Table 1: Practising dentists, pharmacists and physiotherapists, 2016

<table>
<thead>
<tr>
<th></th>
<th>Dentists (per 100 000 inhabitants)</th>
<th>Pharmacists (per 100 000 inhabitants)</th>
<th>Physiotherapists (per 100 000 inhabitants)</th>
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<tr>
<td>EU-28 (*)</td>
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<td>Slovakia (*)</td>
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<td>The Former Yugoslav Republic of Macedonia (*)</td>
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<td>Serbia</td>
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<td>Turkey (*)</td>
<td>26.974</td>
<td>27.854</td>
<td>35.2</td>
</tr>
</tbody>
</table>

(*) 2015.
(1) 2016.
(2) Pharmacists: professionally active.
(3) Dentists and pharmacists: licensed to practice.
(4) Dentists: licensed to practice.
(5) Dentists: licensed to practice.
(8) Dentists: licensed to practice.
(9) Dentists: licensed to practice.
(11) Dentists: licensed to practice.
(13) Pharmacists: professionally active.
(14) (*) 2013.
(15) Source: Eurostat (online data code: hlth_rs_prs1)

Greece, Bulgaria and Cyprus had the highest numbers of dentists per 100 000 inhabitants

Dentists (ISCO 08 code 2261) diagnose, treat and prevent diseases, injuries and abnormalities of the teeth, mouth, jaws and associated tissues. They use a broad range of specialised diagnostic, surgical and other techniques to promote and restore oral health.

On the basis of a comparison in relation to population numbers, Greece (licenced to practice) recorded the highest number of dentists, at 123 per 100 000 inhabitants in 2016. Bulgaria (112 per 100 000 inhabitants) and Cyprus (104 per 100 000 inhabitants) were the only other EU Member States where there were more than 100 practising dentists per 100 000 inhabitants. By contrast, there were fewer than 50 practising dentists per 100 000 inhabitants in Slovakia (professionally active dentists), Malta and, most notably, Poland (33.2 per 100 000 inhabitants; 2015 data).

The number of practising dentists per 100 000 inhabitants remained relatively unchanged in most of the EU Member States between 2011 and 2016 (see Figure 1); there were, however, seven Member States where this ratio increased by at least 10 additional dentists per 100 000 inhabitants. The largest absolute changes were recorded in Bulgaria (with an additional 21 dentists per 100 000 inhabitants between 2011 and 2016), Romania...
The highest relative increase in the number of dentists was recorded in Romania (up 33% between 2011 and 2016) and there were also relatively large gains in Portugal (up 25%; dentists licensed to practise), Bulgaria (up 24%) and Spain (up 22%; dentists licensed to practise). By contrast, there were five Member States where the number of dentists per 100 000 inhabitants fell between 2011 and 2016. The biggest reductions were recorded in Denmark (down 6%; 2011-2015), Finland (down 6%; 2011-2014) and Greece (down 4%; dentists licensed to practise), while the changes in Poland (down 2%; 2011-2015) and Sweden (down less than half a percent; 2011-2015) were relatively small.

There were over 450 000 pharmacists working in the EU in 2016

Pharmacists (ISCO 08 code 2262) store, preserve, compound, dispense and sell medicinal products — irrespective of where they provide these services. They may also provide advice on the proper use and adverse effects of drugs and medicines following prescriptions issued by medical doctors and other health professionals. Malta, Belgium and Spain had the highest number of pharmacists per 100 000 inhabitants

Taking into account the size of each EU Member State in population terms, Malta recorded the highest number of practising pharmacists per 100 000 inhabitants, at 133 in 2016 (see Figure 2 for information concerning differences in data coverage for individual EU Member States). There was also a relatively high degree of accessibility to pharmacists in Belgium (123), as well as in Spain (121), Italy (116), Lithuania (114; licensed to practise) and Ireland (113; pharmacists licensed to practise). The majority of Member States reported between 60 and 110 pharmacists per 100 000 inhabitants, although Denmark (51; 2015 data) and the Netherlands (21) were below this range.

The number of practising pharmacists per 100 000 inhabitants increased greatly between 2011 and 2016 in...
Cyprus and Malta, although there is a break in series for both of these EU Member States. The next fastest growth rates were in Spain, Romania, Latvia (break in series) and Hungary (also a break in series) — see Figure 2. By contrast, the number of practising pharmacists fell between 2011 and 2016 in Luxembourg and Finland (2011-2014) and was marginally lower in Sweden (2011-2015) and France.

Figure 2: Practising pharmacists, 2011 and 2016.(per 100 000 inhabitants)
Source: Eurostat (hlth_rs_prs1)

There were 554 000 physiotherapists working in the EU-28 in 2016

Physiotherapists (ISCO 08 code 2264) assess, plan and implement rehabilitative programs that improve or restore human motor functions, maximise movement ability, relieve pain syndromes, and treat or prevent physical challenges associated with injuries, diseases and other impairments. They apply a broad range of physical therapies and techniques such as movement, ultrasound, heating, laser and other techniques.

Germany had the highest number of physiotherapists per 100 000 inhabitants

In 2016, the relative distribution of physiotherapists across the individual EU Member States was more diverse than for dentists or pharmacists, ranging from 225 per 100 000 inhabitants in Germany down to 7 per 100 000 inhabitants in Romania.

Between 2011 and 2016, all but one of the EU Member States reported an increase in the number of practising physiotherapists per 100 000 inhabitants. The one exception was Finland, where the number of practising physiotherapists fell by 37 per 100 000 inhabitants between 2011 and 2014.
The number of physiotherapists per 100 000 inhabitants grew greatly between 2011 and 2016 in Cyprus, but it should be noted that there is a break in series. Among the other EU Member States, the fastest growth was in Germany: despite already having the second highest number of physiotherapists (188) per 100 000 inhabitants in 2011, this ratio had increased in Germany by 36 physiotherapists per 100 000 inhabitants by 2016. In a similar manner, Luxembourg also reported a large increase during this period — up 32 per 100 000 inhabitants — despite already having the fourth highest ratio in 2011 (166 per 100 000 inhabitants).

**Health graduates**

Table 2 presents data on the number of dentists and pharmacists graduating in the EU Member States. In 2016, there were 13 700 dentistry graduates and 23 700 pharmacy graduates in the EU-28.
The EU’s most populous Member State, Germany, had the highest number of dentistry graduates (2 400) among the EU Member States in 2016, while there were also 2 000 dentistry graduates in Romania and more than 1 000 in Spain, France (2015 data) and the United Kingdom. By contrast, the highest numbers of pharmacy graduates were recorded in Italy (3 700; 2015 data), the United Kingdom (3 500) and France (3 100; 2015 data), while Spain (2 700) also recorded more pharmacy graduates than Germany (2 200); there were also in excess of 1 000 pharmacy graduates in Romania, Poland (2015 data) and Portugal.

Relative to the total number of inhabitants, Romania recorded the highest number of dentistry graduates in 2016, at 10.4 graduates per 100 000 inhabitants (see Figure 4 for more information on the data coverage for each EU Member State). Portugal (6.5 graduates per 100 000 inhabitants) and Lithuania (6.0 graduates per 100 000 inhabitants) also recorded relatively high ratios and all three of these Member States also reported that their number of dentistry graduates per 100 000 inhabitants rose during the period 2006-2016. The majority of Member States for which data are available had between 1.7 and 3.7 dentistry graduates per 100 000 inhabitants, although the Netherlands and Italy (2015 data) were below this range; note there were no graduates from degree courses in dentistry in Cyprus or Luxembourg.
Portugal recorded the highest ratio of pharmacy graduates in relation to its total population, at 10.2 graduates per 100 000 inhabitants in 2016 (see Figure 5 for more information on the data coverage for each EU Member State). This was notably higher than in any of the other Member States, with Slovenia (8.9 graduates per 100 000 inhabitants), Malta (8.6 graduates per 100 000 inhabitants) and Romania (7.8 graduates per 100 000 inhabitants) recording the next highest ratios. By contrast, there were relatively few pharmacy graduates — 2.8 and 2.7 graduates per 100 000 inhabitants respectively — in Denmark (2015 data) and Germany, while this ratio was even lower in the Netherlands (1.3 graduates per 100 000 inhabitants); note there were no graduates from degree courses in pharmacy in Cyprus or Luxembourg.
Figure 5: Graduates — pharmacists, 2006, 2011 and 2016 (per 100 000 inhabitants)
Source: Eurostat (hlth_rs_grd)

Source data for tables and graphs
- Dentists, pharmacists and physiotherapists: tables and figures

Data sources

Key concepts
Practising dentists, pharmacists and physiotherapists provide services directly to patients. Dentists and pharmacists have completed university studies in their respective domains and all three professions need to be licensed to practice. Dentists, pharmacists and physiotherapists who are working in administration, research or other posts that exclude direct contact with the patients and clients are excluded from the definition of those who are practising, as are those who are unemployed, retired, or working abroad.

Data on dental and pharmacy graduates cover the number of students who have obtained a recognised qualification in dentistry or pharmacy in a given year; a university degree is generally not required to practice as a physiotherapist.

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; in this article preference is given to the concept of 'practising' dentists and pharmacists:

- '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 dentists, pharmacists and physiotherapists are classified according to the International Standard Classification of Occupations (ISCO); they are defined under ISCO 08 as code 226:

- 226 Other health professionals;
- 2261 Dentists;
- 2262 Pharmacists;
- 2264 Physiotherapists.

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

- dentists;
- pharmacists;
- physiotherapists;
- health graduates.

Note on tables: the symbol ':' is used to show where data are not available.

**Context**

According to EU statistics on income and living conditions (EU-SILC), some 3.7% of the EU-28’s population reported they had unmet needs for dental care due to financial reasons in 2016; this figure was slightly more than double the corresponding share of the population reporting they had finance-related unmet medical needs (1.7%). This difference may, at least in part, be due to national social security systems covering fewer people or a lower proportion of the total cost of dental care, resulting in some individuals having to pay a relatively high share of their dental expenses out of their own pockets (or through private health insurance).

'Dental tourism' is an area that has seen particularly rapid growth in several EU Member States in recent years, for example, in Hungary, as relatively low prices, increased patient mobility, lower prices for air travel, and greater consumer confidence and awareness have led some to consider the option of having dental treatment abroad. This pattern may be expected to develop in the coming years: Directive 2011/24/EU of the European Parliament and of the Council, on the application of patients' rights in cross-border healthcare was implemented in 2013 and provides patients with increased rights and promotes cooperation between health systems.

An increasing number of health professionals are seeking jobs in other EU Member States. Aside from the expected 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 a Europe-wide legal framework enabling Member States to recognise each other’s qualifications. A range of health professionals — including dentists, pharmacists and physiotherapists — enjoy automatic recognition, in other words, if they are a certified practitioner in their home country then they are automatically entitled to practice anywhere else in the EU. The directive also provides a set of minimum requirements for each professional activity, including: the need for a compulsory university degree in order to be a dental practitioner or a pharmacist; and a minimum study/training period of four years for dental practitioners, five years for pharmacists, and three years for physiotherapists.
Other articles

Online publications

- Health — online publication
- Disability statistics — online publication

Healthcare human and physical resources

- Physicians
- Nursing and caring professionals
- 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 care (t_hlth_care)

Database

- Health care (hlth_care)

Health care resources (hlth_res)
  - Health care staff (hlth_staff)
    - Health graduates (hlth_rs_grd)
    - Health personnel (excluding nursing and caring professionals) (hlth_rs_prs1)

Dedicated section

- Health
- Health care

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 systems
- World Health Organisation (WHO) — Health workforce

Other external links

- Council of European Dentists
- European association of hospital pharmacists
- European Region of the World Confederation for Physical Therapy
- Pharmaceutical Group of the European Union (PGEU) — community pharmacists

View this article online at http://ec.europa.eu/eurostat/statistics-explained/index.php/Healthcare_personnel_statistics_-_dentists,_pharmacists_and_physiotherapists