

## Health Workforce Migration

### Definitions

Updated: July 2021

The data published in Eurobase is as follows:

Total number of doctors
- Domestically-trained doctors
- Foreign-trained doctors
<i>Of which: native-born but foreign-trained</i>
- Unknown place of training
% of foreign-trained doctors
Total annual inflow of foreign-trained doctors
Total number of nurses
- Domestically-trained nurses
- Foreign-trained nurses
<i>Of which: native-born but foreign-trained</i>
- Unknown place of training
% of foreign-trained nurses
Total annual inflow of foreign-trained nurses

Total number of doctors (physicians)	<b>The data should refer to practising physicians where possible. (If not possible, the data can be reported for professionally active physicians or physicians licensed to practice).</b>
Foreign-trained doctors: number (stock)	<p><b>The number of doctors who have obtained their first medical qualification (degree) in another country and are entitled to practice in the receiving country.</b></p> <p><b><u>Inclusion</u></b></p> <ul style="list-style-type: none"> <li>- Foreign-trained doctors who have obtained any type of registration to practice in the receiving country.</li> <li>- Medical interns and residents who have obtained a medical degree in another country but have not yet obtained a (full) registration to practice in the receiving country.</li> </ul> <p><b><u>Exclusion</u></b></p> <ul style="list-style-type: none"> <li>- Foreign-trained doctors who are registered to practice in the receiving country but are practising in another country (temporarily or permanently).</li> </ul> <p><b>Note: The number should be at the end of the calendar year.</b></p>

<p>Foreign-trained doctors: annual inflow</p>	<p>The number of doctors who have obtained their first medical qualification (degree) in another country and are receiving a new authorisation in a given year to practice in the receiving country.</p> <p><b>Inclusion</b></p> <ul style="list-style-type: none"> <li>- If the source is <u>professional registers</u> (preferred source): Foreign-trained doctors coming in the country under all types of registration status (full, temporary, limited, provisional or conditional registration).</li> <li>- If the source is <u>working permits delivered to immigrants</u> (possible alternative source): Foreign-trained doctors coming in the country under a permanent or temporary working permit.</li> <li>- Medical interns and residents who have obtained a medical degree in another country but have not yet obtained a (full) registration to practice in the receiving country.</li> </ul> <p><b>Note:</b> The number should be at the end of the calendar year.</p>
<p>Total number of nurses</p>	<p>The data should refer to practising nurses where possible. (If not possible, the data can be reported for professionally active nurses or nurses licensed to practise).</p>
<p>Foreign-trained nurses: number (stock)</p>	<p>The number of nurses who have obtained a recognised qualification in nursing in another country and are working as a nurse in the receiving country.</p> <p><b>Inclusion</b></p> <ul style="list-style-type: none"> <li>- Foreign-trained nurses who have obtained any type of registration to practice in the receiving country.</li> <li>- Nurses who have obtained a recognised qualification in nursing in another country but have not yet obtained a (full) registration to practice in the receiving country.</li> </ul> <p><b>Exclusion</b></p> <ul style="list-style-type: none"> <li>- Foreign-trained nurses who are registered to practice in the receiving country but are practising in another country (temporarily or permanently).</li> </ul> <p><b>Note:</b> The number should be at the end of the calendar year.</p>
<p>Foreign-trained nurses: annual inflow</p>	<p>The number of nurses who have obtained a recognised qualification in nursing in another country and are receiving a new authorisation in a given year to practice in the receiving country.</p> <p><b>Inclusion</b></p> <ul style="list-style-type: none"> <li>- If the source is <u>professional registers</u> (preferred source): Foreign-trained nurses coming in the country under all types of registration status (full, temporary, limited, provisional or conditional registration).</li> <li>- If the source is <u>working permits delivered to immigrants</u> (possible alternative source): Foreign-trained nurses coming in the country under a permanent or temporary working permit.</li> </ul> <p><b>Note:</b> The number should be at the end of the calendar year.</p>

## Note on comparability

The data collection on health workforce migration is recent, still under development and there are some limitations in the comparability among countries. The main limitation relates to differences in the activity status of doctors and nurses. While the countries are asked to report data on practising professionals, the data is not always available or up-to-date. Furthermore the data source in some countries includes interns and residents, while they are not included in other countries and because foreign-trained professionals are often over-represented in those categories, this may result in an under-estimation in countries where they are not included (e.g., France, Hungary, Poland and Switzerland). The data for Germany and Spain is based on nationality (or place of birth in the case of Spain), not on the place of training.

In the context of comparing health care services across Member States, Eurostat gives preference to the concept 'practising', as it best describes the availability of health care resources. The detailed definitions are available in [CIRCBC](#).

## Country specific notes

[Belgium](#), [Bulgaria](#), [Czechia](#), [Denmark](#), [Germany](#), [Estonia](#), [Ireland](#), [Greece](#), [Spain](#), [France](#), [Croatia](#), [Italy](#), [Cyprus](#), [Latvia](#), [Lithuania](#), [Luxembourg](#), [Hungary](#), [Malta](#), [Netherlands](#), [Austria](#), [Poland](#), [Portugal](#), [Romania](#), [Slovenia](#), [Slovakia](#), [Finland](#), [Sweden](#), [Iceland](#), [Liechtenstein](#), [Norway](#), [Switzerland](#), [Montenegro](#), [North Macedonia](#), [Albania](#), [Serbia](#), [Turkey](#), [United Kingdom](#)

## **Belgium**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: **Federal Public Service - Public Health.**

Full title of the database: Database of health work professionals (known as "Cadastré").

Coverage: The "Cadastré" only contains health work professionals with a license to practice their profession. At this stage, it is not yet possible to identify the health work professionals with an economic activity.

Stock data do not include physicians with temporary visa (but inflow data do).

#### **Inflow of foreign-trained doctors**

Source of data: **Federal Public Service - Public Health.**

Full title of the database: Database of health work professionals (known as "Cadastré").

Coverage: The "Cadastré" only contains health work professionals with a license to practice their profession. At this stage, it is not yet possible to identify the health work professionals with an economic activity.

Inflow data include physicians with temporary visa. Temporary visa = people staying for few months for a short training-period.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Source of data: **Federal Public Service - Public Health.**

Full title of the database: Database of health work professionals (known as "Cadastré").

Coverage: The "Cadastré" only contains health work professionals with a license to practice their profession. At this stage, it is not yet possible to identify the health work professionals with an economic activity.

#### **Inflow of foreign-trained nurses**

Source of data: **Federal Public Service - Public Health.**

Full title of the database: Database of health work professionals (known as "Cadastré").

Coverage: The "Cadastré" only contains health work professionals with a license to practice their profession. At this stage, it is not yet possible to identify the health work professionals with an economic activity.

## **Bulgaria**

### **Foreign-trained doctors**

Source of data: Ministry of Health.

Coverage: According to the national legislation the Ministry of Health is responsible institution for the recognition of medical training obtained in another country. All granted recognitions and issued certificates during the respective year are covered.

Deviation from the definition:

Estimation method:

Break in time series:

Note: only annual inflow data are available.

### **Foreign-trained nurses**

Source of data: Ministry of Health

Coverage: According to the national legislation the Ministry of Health is responsible institution for the recognition of medical training obtained in another country. All granted recognitions and issued certificates during the respective year are covered.

Deviation from the definition:

Estimation method:

Break in time series:

Note: only annual inflow data are available.

## **Czechia**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: **Czech Medical Chamber**.

Coverage: Physicians licensed to practice (not only practising physicians but also retired physicians, etc.). Registration in the Czech Medical Chamber is obligatory by law for persons who want to work as physicians.

Break in time series: Annual changes can be related to cancellation of membership in the Czech Medical Chamber of doctors who work outside the health services.

#### **Annual Inflow of foreign-trained doctors**

Source of data: **Czech Medical Chamber**.

### **Foreign-trained nurses**

Data not available.

## **Denmark**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: **The Danish Health Authority**.

Full title of the database: Population Register.

#### **Annual Inflow of foreign-trained doctors**

Source of data: **The Danish Health Authority**.  
Full title of the database: The Authorization Registry.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Source of data: **The Danish Health Authority**.  
Full title of the database: Population Register.

#### **Annual inflow of Foreign-trained nurses**

Source of data: **The Danish Health Authority**.  
Full title of the database: The Authorization Registry.

## **Germany**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: **German Medical Association**, Medical practitioner statistics 2019; <http://www.gbe-bund.de/> or <http://www.baek.de>.

Reference period: 31<sup>st</sup> December.

#### Coverage:

- Data contain the number of foreign-national physicians registered by the medical association who are actively practising medicine in public and private institutions and provide services directly to patients (head-count data).
- The reported values refer to all practicing physicians with a foreign citizenship registered in Germany. Medical practitioners, who have both a German and a foreign citizenship, are not counted.
- Included are general practitioners, specialists, interns and resident physicians.
- The data include physicians specializing in oral and maxillofacial surgery.
- The data exclude dentists and stomatologists as well as qualified physicians working in administration, research and industry positions, unemployed and retired physicians.
- Excluded are students who have not yet graduated.

Deviation from the definition: Data are based on nationality (not on place of training).

#### **Annual Inflow of foreign-trained doctors**

Source of data: **German Medical Association**, Medical practitioner statistics 2019; <http://www.gbe-bund.de/> or <http://www.baek.de>.

Reference period: 31<sup>st</sup> December.

#### Coverage:

- Data contain the number of accession of medical practitioners from countries of the European Union.
- Included are general practitioners, specialists, interns and resident physicians.
- The data exclude dentists and stomatologists as well as students who have not yet graduated.

Deviation from the definition: Data contain the number of accession of medical practitioners from EU countries only.

### **Foreign-trained nurses**

## **Stock of foreign-trained nurses**

**Source of data: Federal Statistical Office in cooperation with the Federal Statistical Offices of the Länder.**

**Full title of the database:** 1. German Microcensus including the Labour Force Survey and 2. Health Labour Accounts 2020.

Please note that the provided stock-data for Foreign-trained nurses do not completely correspond with the definitions of this data collection.

### **Coverage:**

- The data provided cover all practicing professional nurses to the end of each reference year. Source of this data is the health labour accounts.

- For the distinction between domestically-trained nurses and Foreign-trained nurses the German Microcensus has been used. The German Microcensus is a cross-sectional survey (1% of the population living in Germany) and collects data across the whole year. Therefore, the results are annual averages.

- The total amounts of domestically- and Foreign-trained nurses were calculated in two steps: The shares of domestically-/Foreign-trained nurses were calculated based on the German Microcensus (first step). In order to obtain the total amounts of domestically-trained nurses and Foreign-trained nurses the calculated shares based on the German Microcensus were multiplied by the total number of practicing professional nurses based on the health labour accounts.

### **Deviation from the definition:**

- Foreign-trained nurses are defined as individuals who are working in the reference year as practicing nurses in Germany and have successfully completed their highest level of education or training abroad. The data provided does not show if the highest level of education or training successfully completed is a degree in nursing or in another field than nursing.

- The respondents classify themselves as nurses. Therefore the data provided does not show the amount of people with an officially recognized degree in nursing which was acquired in Germany or abroad.

- The data provided include the following categories of nurses:

- all categories of professional nurses
- professional geriatric nurses

- Foreign-trained is defined as:

- working in the reference year as practicing nurses in Germany
- highest degree of education or training was acquired in a foreign country
- native-born but foreign-trained are included

- Data of the country where the highest degree was acquired are not collected by the German Microcensus directly. Therefore nationality/former nationality is used as proxy to identify the country where the highest degree was acquired.

- The German Microcensus is a cross-sectional survey and can be used to measure the Stock of foreign-trained nurses, but has also some restrictions:

- Data for nationality and former nationality are collected according to the entire list of countries of this data collection. In general the Federal Statistical Office publishes results based on the German Microcensus for individuals with a foreign nationality only, if the estimated population total exceeds 7000. For estimated totals below 7000 the relative standard error is considered being too large. In this case, the delivered values of the "nurses from the Russian Federation" for the reporting years 2013 until 2017 are estimated to be very uncertain. The relative standard error exceeds more than 15%.

- Native born but foreign-trained are included in the total of Foreign-trained nurses. They cannot be listed separately; because of the small size of this subgroup result would not be reliable.

- The sum of the list of Foreign-trained nurses by country of first qualification is equal to the total number of Foreign-trained nurses. Native-born but foreign-trained and German repatriates are

contained in the total of Foreign-trained nurses and in the category "OTHERS (not elsewhere classified).

### **Annual inflow of Foreign-trained nurses**

Source of data: **Federal Statistical Office in cooperation with the Federal Statistical Offices of the Länder.**

Full title of the database: Statistics for the Federal Recognition Act (2012).

Coverage:

- The data provided include foreign professional qualifications fully recognised in Germany for nursing and pediatric nursing. The Federal Recognition Act has been effective since April 1, 2012.
- The data cover fully recognised foreign professional qualifications between April 1, 2012 and December 31, 2019. Further specialised professional qualifications in nursing (for example nurses for anaesthesia) are not included in the data, because these are subject of federal state law (Länder).
- The Federal Statistical Offices of the Länder are establishing the collection of data beginning with the commencement of legal act. First collections started in single Länder at the end of the year 2012. Federal state law is effective in all Länder since the middle of the year 2014.
- The data by country are based on country of training.

Deviation from the definition:

- The data include professional qualifications acquired abroad which have been recognised as being completely equivalent to a qualification obtained in Germany. These include recognized qualifications of persons with German or non-German citizenship regardless of their place of residence. For reasons of data protection, a rounding procedure was used to ensure confidentiality. Individual results are initially determined without rounding. Subsequently, each number is rounded up or down to a multiple of 3. As a consequence, the total value can deviate from the sum of the individual values. This method distorts the data only slightly. The deviation from the real value is at most 1 for each data cell.

Break in time series:

- The Federal Government's Recognition Act ("Act to improve the assessment and recognition of foreign professional qualifications") has been in effect since April 1, 2012. Therefore, data are existent from this point of time.

Additional information: The "Others (not elsewhere classified)" item includes countries not in the country list of the table, i.e.:

- former Serbia (including Kosovo)
- former Serbia and Montenegro
- Kosovo
- Macedonia (former Yugoslav Republic)
- Czechoslovakia
- Soviet Union

## **Estonia**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Sources of data: **Health Board**, Register of Health Professionals.

Coverage: The register was established on 01.01.2002. The total number of doctors is not complete for the years 2002-2004, all doctors had to be registered by the beginning of 2005.

Deviation from the definition: The programme of the register does not enable to separate general and specialised doctors.

## **Annual Inflow of foreign-trained doctors**

Source of data: **Health Board**, Register of Health Professionals.

Coverage: The register was established on 01.01.2002.

## **Foreign-trained nurses**

### **Stock of foreign-trained nurses**

Source of data: **Health Board**, Register of Health Professionals

Coverage: The register was established on 01.01.2002. The total number of nurses is not complete for the years 2002-2004, all nurses had to be registered by the beginning of 2005.

### **Annual inflow of Foreign-trained nurses**

Source of data: **Health Board**, Register of Health Professionals.

## **Ireland**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors and Annual Inflow of foreign-trained doctors**

Source of data: **Medical Council of Ireland**.

Coverage:

- Figures refer to all persons (including physicians working abroad) who have entered and maintained their name as fully registered doctors in the Register of Medical Practitioners, regardless of the area in which they are engaged or whether or not they are practising medicine.

- Physicians licensed refer to those registered by the Medical Council of Ireland. Registration is a pre-requisite for practice in Ireland.

- Data on native born doctors foreign trained is not available.

Deviation from definition: Data refer to licensed physicians, and include physicians practising outside of Ireland.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Source of data: An Bord Altranais (ABA).

Coverage: Stock of nurses refers to nurses licensed to practice (see nurses licensed to practice).

Data are not available for stock of foreign trained nurses or native born who obtained their qualification abroad.

#### **Annual inflow of Foreign-trained nurses**

Source of data: An Bord Altranais (ABA).

Coverage: Data refer to nurses who are licensed to practice who obtained their nursing qualification outside of Ireland, are currently registered with NMBI with an active status.

Deviation from definition: Data contains midwives.

## **Greece**

### **Foreign-trained doctors**

Source of data: Directorate of Public Health and Social Welfare, Athens Medical Association, Piraeus Medical Association etc;

Annual Doctors and Dentists survey: [http://www.statistics.gr/en/statistics/-/publication/SHE09/-](http://www.statistics.gr/en/statistics/-/publication/SHE09/)  
Reference period: 31st December.

Coverage: Information is partially missing (e.g. 35% missing for 2017).

### **Foreign-trained nurses**

Source of data: The Stock Of Nurses data refer to professionals registered as members of the **Panhellenic Association of Nurses** (ENE) which has data available from the year 2005 onwards. Though the registration is obligatory not all of the older nurses are registered in ENE.

## **Spain**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Missing information.

#### **Annual Inflow of foreign-trained doctors**

Source of data: Ministerio de Sanidad, Dirección General de Ordenación Profesional. Registro Nacional de Cualificaciones Oficiales (Ministry of Health, General Directorate for Professional Regulation. National Register of Official Qualifications).

Coverage: The coverage is the entire national territory.

Data for foreign-trained doctors with recognized qualification.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Missing information.

#### **Annual inflow of Foreign-trained nurses**

Source of data: Ministerio de Sanidad, Dirección General de Ordenación Profesional. Registro Nacional de Cualificaciones Oficiales (Ministry of Health, General Directorate for Professional Regulation. National Register of Official Qualifications).

Coverage: The coverage is the entire national territory.

Data for foreign-trained nurses with recognized qualification.

## **France**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: **Ministère du Travail, de l'Emploi et de la Santé - Direction de la Recherche, des Études, de l'Évaluation et des Statistiques (DREES), Sous-Direction de l'Observation de la Santé et**

### **de l'Assurance maladie, Bureau des Professions de santé.**

- From 2011 (01/01/2012): RPPS (Répertoire partagé des professionnels de santé), ASIP-SANTE RPPS.
- Until 2010 (01/01/2011): Répertoire ADELI, DREES.

Reference period: 31<sup>st</sup> December.

#### Coverage:

- From 2011, data from "RPPS Registry", physicians who have obtained their diploma in a foreign country OR have obtained from the Ministry of Health a registration to practice.
- Until 2010, data from "ADELI Registry", physicians who have obtained their diploma in a foreign country OR have obtained from the Ministry of Health a registration to practice.
- Data represent the global figure of foreign trained with no precision of the country of training.
- Data refer to active physicians, registered in the "ADELI Registry" or "RPPS Registry" and working full-time or part-time in private practice or private surgery, in a clinic or laboratory. Salaried physicians are physicians registered in the "ADELI Registry" or "RPPS Registry", practising only full-time in hospital activities and in the field of health care, preventive medicine, control, teaching, research or administration.
- Stomatologists are included in the number of physicians.
- Interns and residents are not included.
- Data refer to metropolitan France and D.O.M. (overseas departments).
- The training location is not informed for doctors reported in the category "Others (n.e.c)".

Warning: The data from ADELI Registry referring to foreign trained professionals are not exhaustive. In the case of physicians, the change of data source had a significant impact on the global number of foreign trained physicians, and as such, the ADELI Registry significantly underestimates this category of professionals.

### **Annual Inflow of foreign-trained doctors**

Source of data: **Ministère du Travail, de l'Emploi et de la Santé - Direction de la Recherche, des Études, de l'Évaluation et des Statistiques (DREES), Sous-Direction de l'Observation de la Santé et de l'Assurance maladie, Bureau des Professions de santé.**

- From 2011 (01/01/2012): RPPS (Répertoire partagé des professionnels de santé), ASIP-SANTE RPPS.
- Before 2011: The source of data "Répertoire ADELI-DREES" is not reliable enough to estimate the annual flow of foreign trained doctors.

Reference period: 31<sup>st</sup> December.

#### Coverage:

- From 2011, data from "RPPS Registry", physicians who have registered themselves for the first time in the "RPPS Registry" during the given year of the annual data AND who have obtained their diploma in a foreign country OR have obtained from the Ministry of Health a registration to practice.
- Data refer to active physicians, registered in the "RPPS Registry" and working full-time or part-time in private practice or private surgery, in a clinic or laboratory. Salaried physicians are physicians registered in the "RPPS Registry", practising only full-time in hospital activities and in the field of health care, preventive medicine, control, teaching, research or administration.
- Stomatologists are included in the number of physicians.
- Interns and residents are not included.
- Data refer to metropolitan France and D.O.M. (overseas departments).

Warning: The data from ADELI Registry referring to foreign trained professionals are not exhaustive. In the case of physicians, the change of data source had a significant impact on the global number of foreign trained physicians, and as such, the ADELI Registry significantly underestimates this category of professionals.

### **Foreign-trained nurses**

## **Stock of foreign-trained nurses**

**Source of data: Ministère du Travail, de l'Emploi et de la Santé - Direction de la Recherche, des Études, de l'Évaluation et des Statistiques (DREES), Sous-Direction de l'Observation de la Santé et de l'Assurance maladie, Bureau des Professions de santé.**

- Répertoire ADELI, DREES.

**Reference period:** 31<sup>st</sup> December.

**Coverage:**

- Nurses who have obtained their diploma in a foreign country OR have obtained from the Ministry of Health a registration to practice or have a "European diploma validated".

- The location of training abroad outside Europe is not detailed.

- Data refer to active nurses, registered in the "ADELI Registry".

- Data refer to metropolitan France and D.O.M. (overseas departments).

**Warning:** The data from ADELI Registry referring to foreign trained professionals are not exhaustive. In the case of physicians, the change of data source had a significant impact on the global number of foreign trained physicians, and as such, the ADELI Registry significantly underestimates this category of professionals.

## **Annual inflow of Foreign-trained nurses**

**Source of data: Ministère du Travail, de l'Emploi et de la Santé - Direction de la Recherche, des Études, de l'Évaluation et des Statistiques (DREES), Sous-Direction de l'Observation de la Santé et de l'Assurance maladie, Bureau des Professions de santé.**

- Répertoire ADELI, DREES.

**Reference period:** 31<sup>st</sup> December.

**Coverage:**

- Nurses who have registered themselves for the first time in the "ADELI Registry" during the given year of the annual data AND who have obtained their diploma in a foreign country OR have obtained from the Ministry of Health a registration to practice or have a "European diploma validated".

- The location of training abroad outside Europe is not detailed.

- Data refer to active nurses, registered in the "ADELI Registry".

- Data refer to metropolitan France and D.O.M. (overseas departments).

**Warning:** The data from ADELI Registry referring to foreign trained professionals are not exhaustive. In the case of physicians, the change of data source had a significant impact on the global number of foreign trained physicians, and as such, the ADELI Registry significantly underestimates this category of professionals.

## **Croatia**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

**Source of data: Croatian Medical Chamber**

**Coverage:** complete; public and private health sectors included, data refer to practising physicians as of December 31<sup>st</sup>.

#### **Annual Inflow of foreign-trained doctors**

Data not available

### **Foreign-trained nurses**

Source of data: Croatian Nursing Council

Coverage: complete; data refer to nurses licensed to practise as of December 31<sup>st</sup>.

### **Annual inflow of foreign-trained nurses**

Data not available

## **Italy**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors / Annual inflow of foreign-trained doctors**

Source of data: Istat reports data provided by the **Federazione nazionale degli Ordini dei Medici Chirurghi e degli Odontoiatri**. <https://portale.fnomceo.it/>.

Coverage:

- Data refer to doctors entitled to practice trained abroad.
- The distribution of Foreign-trained doctors by country of training is available since 2019.
- Doctors registered in Italy but practicing abroad are included.
- The category "OTHERS (not elsewhere classified)" includes doctors trained abroad, but the country of training is unknown.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses / Annual inflow of Foreign-trained nurses**

Source of data: Istat reports data provided by the **Federazione nazionale Ordini Professioni Infermieristiche**.

Full title of the database: <http://www.fnopi.it/chi-siamo/ricerca-albo.htm>.

Deviation from the definition:

- Data refer to nurses entitled to practice.
- Nurses registered in Italy but practicing abroad are included.
- Nurses who have obtained a recognised qualification in nursing in another country but have not yet obtained a (full) registration to practice in the receiving country are excluded.
- Foreign-trained nurses who are registered to practice in Italy but are practicing in another country (temporarily or permanently) are included.

## **Cyprus**

### **Foreign-trained doctors**

Source of data: Cyprus Medical Association (CYMA) and Cyprus Medical Council (Ministry of Health). In order for a physician to be authorised to practice in Cyprus year he/she has to renew his/her registration with CYMA on an annual basis. In order for CYMA to issue the license to practise, the physician's qualifications (degree) have to be validated from the Cyprus Medical Council. Hence, the combination of data from these two registers provides almost complete coverage.

Coverage: Almost complete coverage. The only physicians who are excluded are medical interns who have not yet obtained a full registration to practice in Cyprus. The figures refer to practising physicians.

Deviation from the definition: Deviation due to incomplete coverage.

Estimation method: It should be mentioned that up to 2018, all the physicians practising in Cyprus have been trained abroad, since no medical faculties existed in Cyprus Universities. The first physicians graduated from universities in Cyprus in 2019.

Break in time series: Data by country of first qualification has been provided for the first time for reference year 2019.

**'Number of doctors native born but foreign-trained'**: The information on country of birth is not available, hence this variable has been left blank.

### **Annual Inflow of foreign-trained doctors**

Source of data: Cyprus Medical Association (CYMA) and Cyprus Medical Council (Ministry of Health). In order for a physician to be authorised to practice in Cyprus year he/she has to renew his/her registration with CYMA on an annual basis. In order for CYMA to issue the license to practice, the physician's qualifications (degree) have to be validated from the Cyprus Medical Council. Hence, the combination of data from these two registers provides almost complete coverage.

Coverage: Almost complete coverage. The only physicians who are excluded are medical interns who have not yet obtained a full registration to practice in Cyprus. The figures refer to practising physicians, registering in CYMA in 2019.

Deviation from the definition: Deviation due to incomplete coverage.

Estimation method: It should be mentioned that up to 2018, all the physicians practising in Cyprus have been trained abroad, since no medical faculties existed in Cyprus Universities. The first physicians graduated from universities in Cyprus in 2019.

Break in time series: Data by country of first qualification has been provided for the first time for reference year 2019.

### **Foreign-trained nurses**

No data available.

### **Annual Inflow of foreign-trained nurses**

No data available.

## **Latvia**

### **Foreign-trained doctors**

Source of data: **Health Inspectorate of Latvia.**

Coverage: The data coverage is complete. The data cover entire country, and both public and private sectors.

Note that data for doctors (stock) differ from the data reported under Physicians (in the dataset on Health Care Resources) as the data reported under Health Workforce Migration include dentists.

### **Foreign-trained nurses**

Source of data: **Health Inspectorate of Latvia.**

Coverage: The data coverage is complete. The data cover entire country, and both public and private sectors.

## Lithuania

### Foreign-trained doctors

Source of data: **Health Information Centre of Institute of Hygiene**. Data are calculated from the Compulsory Health Insurance Fund information system (subsystem METAS).

Reference period: 31<sup>st</sup> December.

Coverage:

- The number includes physicians licensed to practice in the country at the end of the year.
- The number of Foreign-trained doctors is calculated according to the country of the university they graduated.
- Annual Inflow of foreign-trained doctors is the number of doctors received the licence to practice for the first time calculated according the country of the university they graduated.
- Specialists declared emigration but having valid licence at the end of the year are included as there is no information if they are practicing abroad.

There is no possibility to recognize if the foreign-trained person is native-born.

### Foreign-trained nurses

Source of data: **Health Information Centre of Institute of Hygiene**. Data are calculated from the Compulsory Health Insurance Fund information system (subsystem METAS).

Reference period: 31<sup>st</sup> December.

Coverage:

- The number includes nurses licensed to practice in the country at the end of the year.
- The number of Foreign-trained nurses is calculated according to the country of the medical school they graduated.
- Annual inflow of Foreign-trained nurses is the number of nurses received the licence to practice for the first time calculated according the country of the medical school they graduated.
- Specialists declared emigration but having valid licence at the end of the year are included as there is no information if they are practicing abroad.

There is no possibility to recognize if the foreign-trained person is native-born.

Break in time series:

- 2016: Since 2016, valid licenses with expired data of updating of license is treated like not valid license.

## Luxembourg

### Foreign-trained doctors

Luxembourg is not able to provide reliable information on Health Workforce Migration due to its specificities:

- Luxembourg nationals often obtain their diplomas/qualifications abroad, mainly because education is not available in Luxembourg for several health professions. Hence, using the country where the qualification was obtained as a criteria to assess migratory status is not pertinent.
- Moreover, with its resident population composed of 47,5% non-nationals (2019) and Luxembourg nationals choosing to live across the borders, using nationality as a criteria to assess migratory status is not pertinent.
- However, methodology and data collection are under discussion and revision in order to better complete this data collection.

## Foreign-trained nurses

Luxembourg is not able to provide reliable information on Health Workforce Migration due to its specificities:

- Luxembourg nationals often obtain their diplomas/qualifications abroad, mainly because education is not available in Luxembourg for several health professions. Hence, using the country where the qualification was obtained as a criteria to assess migratory status is not pertinent.
- Moreover, with its resident population composed of 47,75% non-nationals (2019) and Luxembourg nationals choosing to live across the borders, using nationality as a criteria to assess migratory status is not pertinent.
- However, methodology and data collection are under discussion and revision in order to better complete this data collection.

## Hungary

### Foreign-trained doctors

#### Stock of foreign-trained doctors

Source of data:

- Up to 2006: **Hungarian Medical Chamber** (MOK in Hungarian) [www.mok.hu](http://www.mok.hu).
- From 2007 until 2014: **Office of Health Authorisation and Administrative Procedures** (EEKH in Hungarian) [www.eekh.hu](http://www.eekh.hu).
- From 2015 to 2016: **Health Registration and Training Center** (ENKK in Hungarian) [www.enkk.hu](http://www.enkk.hu). Operational Register.
- From 2017: **National Healthcare Service Center** (ÁEEK in Hungarian) [www.enkk.hu](http://www.enkk.hu). Operational register.

Coverage: Doctors, who has a valid registration in the Operational Registry, which is the condition of the unsupervised healthcare activity.

- Before 2004, the information of the of the doctor's registration in the Operational Registry is not available.

#### Annual Inflow of foreign-trained doctors

Source of data:

- Up to 2006: **Hungarian Medical Chamber** (MOK in Hungarian) [www.mok.hu](http://www.mok.hu).
- From 2007 until 2014: **Office of Health Authorisation and Administrative Procedures** (EEKH in Hungarian) [www.eekh.hu](http://www.eekh.hu).
- From 2015 to 2016: **Health Registration and Training Center** (ENKK in Hungarian) [www.enkk.hu](http://www.enkk.hu). Basic register.
- From 2017: **National Healthcare Service Center** (ÁEEK in Hungarian) [www.enkk.hu](http://www.enkk.hu). Basic register.

Coverage: Foreign trained doctors, by the year of registration in the Basic Register.

### Foreign-trained nurses

#### Stock of foreign-trained nurses

Source of data:

- From 2013 until 2014: **Office of Health Authorisation and Administrative Procedures** (EEKH in Hungarian), [www.eekh.hu](http://www.eekh.hu).

- From 2015 to 2016, **Health Registration and Training Center** (ENKK in Hungarian), [www.enkk.hu](http://www.enkk.hu). Operational Register.

- From 2017: **National Healthcare Service Center** (ÁEEK in Hungarian) [www.enkk.hu](http://www.enkk.hu). Operational register.

Coverage: Nurses, who has a valid registration in the Operational Registry, which is the condition of the unsupervised healthcare activity.

### **Annual inflow of Foreign-trained nurses**

Source of data:

- From 2013 until 2014: **Office of Health Authorisation and Administrative Procedures** (EEKH in Hungarian), [www.eekh.hu](http://www.eekh.hu).

- From 2015 to 2016, **Health Registration and Training Center** (ENKK in Hungarian), [www.enkk.hu](http://www.enkk.hu). Basic register.

- From 2017: **National Healthcare Service Center** (ÁEEK in Hungarian) [www.enkk.hu](http://www.enkk.hu). Basic register

Coverage: Nurses, by the year of registration in the Basic Register.

## **Malta**

### **Foreign-trained doctors**

Source of data: Data is compiled at the **Directorate for Health Information and Research** from data on the Medical Council Register.

Coverage: Stock of Doctors - Figures represent the number of foreign-trained physicians who, in 2014, were practising in Malta.

Annual inflow of Doctors – Figures represent the number of foreign-trained who registered to practise in Malta during 2014.

Subsequent years as above

### **Foreign-trained nurses**

Data not available.

## **Netherlands**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: **CIBG**.

Full title of the database: Beroepen in de Gezondheidszorg (BIG). To distinguish working doctors in the health care and health care related sectors, the database was linked to the Social Statistical Database of Statistics Netherlands.

<http://www.cibg.nl>.

Coverage: Data cover doctors working in the Netherlands (also doctors living in other countries and working in the Netherlands, but that last group may be incomplete). Doctors from other countries that register in the Netherlands might not get a social security number in the BIG registry immediately, so we expect an underestimation of foreign doctors that will slowly decrease as the registry gets better.

Deviation from the definition:

- Up to 2014: Data refer to doctors are licensed to practice; and working in the Netherlands, in the health care sector, or health related sectors (excluded e.g. is agriculture and industry, it more or less equals SHA HP classification). Definition is approach of professionally active doctors. It includes doctors in training, however, for these it is not possible to distinguish them according to their specialty AND to their country of training (i.e. their basic doctors exam).
- From 2014: Data refer to doctors who are licensed to practice and live and work in the Netherlands. Their license requires that they have been practising in the past five years;
- Figures below 5 are not reported; they are included in 'other'.

Break in time series: 2012. The register has been cleaned up in 2012. As from 2014, we adapted a new method to physicians with a specialism and general practitioners. As the license register requires those physicians to have been practising in the past five years we did not use the sector of employment in the selection method anymore. Research showed this was a better estimate for the required definition of practising. The result is a slight increase of their numbers from 2014 onwards, compared to the previous professionally active definition.

2017 onwards: doctors from other countries and working in the Netherlands slowly get a better registration in the data of CIBG

### **Annual Inflow of foreign-trained doctors**

Source of data: CIBG.

Full title of the database: Beroepen in de Gezondheidszorg (BIG). To distinguish working doctors in the health care and health care related sectors, the database was linked to the Social Statistical Database of Statistics Netherlands.

<http://www.cibg.nl>.

Coverage: Data cover doctors working in the Netherlands (also doctors living in other countries and working in the Netherlands, but that last group may be incomplete).

Deviation from the definition:

- Until 2014: Data refer to doctors working in the Netherlands, in the health care sector, or health related sectors (excluded e.g. is agriculture and industry, it more or less equals SHA HP classification). Definition is approach of professionally active doctors. It includes doctors in training, however, for these it is not possible to distinguish them according to their specialty AND to their country of training (i.e. their basic doctors exam).
- From 2014: Data refer to doctors who are licensed to practice and live and work in the Netherlands. Their license requires that they have been practising in the past five years;
- Figures below 5 are not reported; they are included in 'other'.

Break in time series: 2012. The register has been cleaned up in 2012. As from 2014, we adapted a new method to physicians with a specialism and general practitioners. As the license register requires those physicians to have been practising in the past five years we did not use the sector of employment in the selection method anymore. Research showed this was a better estimate for the required definition of practising. The result is a slight increase of their numbers from 2014 onwards, compared to the previous professionally active definition.

2017 onwards: doctors from other countries and working in the Netherlands slowly get a better registration in the data of CIBG

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Source of data: CIBG.

Full title of the database: Beroepen in de Gezondheidszorg (BIG). To distinguish working nurses in the health care and health care related sectors, the database was linked to the Social Statistical Database of Statistics Netherlands.

<http://www.cibg.nl>.

Coverage: Data cover nurses working in the Netherlands (also doctors living in other countries and working in the Netherlands, but that last group may be incomplete).

Deviation from the definition:

- until 2014: Data refer to nurses working in the Netherlands, in the health care sector, or health related sectors (excluded e.g. is agriculture and industry, it more or less equals SHA HP classification). Definition is approach of professionally active nurses.

- From 2014: Data refer to nurses who are licensed to practice and live and work in the Netherlands. Their license requires that they have been practising in the past five years;

- Figures below 5 are not reported; they are included in 'other'.

Break in time series: 2012. The register has been cleaned up in 2012. As of 2014, nurses are obliged to re-register. The requirement is that they have been practising in the past 5 years. As a result the figures are significantly lower than before.

2017 onwards: nurses from other countries and working in the Netherlands slowly get a better registration in the data of CIBG.

### **Annual inflow of Foreign-trained nurses**

Source of data: CIBG.

Full title of the database: Beroepen in de Gezondheidszorg (BIG). To distinguish working nurses in the health care and health care related sectors, the database was linked to the Social Statistical Database of Statistics Netherlands.

<http://www.cibg.nl>.

Coverage: Data cover nurses working in the Netherlands (also doctors living in other countries and working in the Netherlands, but that last group may be incomplete).

Deviation from the definition:

- until 2014: Data refer to nurses working in the Netherlands, in the health care sector, or health related sectors (excluded e.g. is agriculture and industry, it more or less equals SHA HP classification). Definition is approach of professionally active nurses.

- From 2014: Data refer to nurses who are licensed to practice and live and work in the Netherlands. Their license requires that they have been practising in the past five years;

- Figures below 5 are not reported; they are included in 'other'.

Break in time series: 2012. The register has been cleaned up in 2012. As of 2014, nurses are obliged to re-register. The requirement is that they have been practising in the past 5 years. As a result, the figures are significantly lower than before.

2017 onwards: nurses from other countries and working in the Netherlands slowly get a better registration in the data of CIBG

## **Austria**

### **Foreign-trained doctors**

### **Stock of foreign-trained doctors**

Source of data: **Austrian Medical Association**, Register of practising physicians.

Reference period: 31<sup>st</sup> December.

Coverage:

- Included are foreign-trained physicians who are licensed to practice according to the Austrian legislation and who are registered at the Austrian Medical Association (head count).
- Excluded are physicians who do not provide services to individual patients (in pharmaceutical industry, administration, research, etc.).
- Interns are excluded.

**Note:**

National citizens who went to study abroad and came back afterwards are reported under the line "Of which: native-born but foreign-trained".

### **Annual Inflow of foreign-trained doctors**

Source of data: **Austrian Medical Association**, Register of practising physicians.

Reference period: 1<sup>st</sup> January to 31<sup>st</sup> December.

Coverage:

- Included are foreign-trained physicians who are licensed to practice according to the Austrian legislation and who are registered at the Austrian Medical Association (head count).
- Excluded are physicians who do not provide services to individual patients (in pharmaceutical industry, administration, research, etc.).
- Interns are excluded.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Data not available.

### **Annual inflow of Foreign-trained nurses**

Source of data: **Statistics Austria**, Register of educational attainment; data based on recognitions of qualifications by the Austrian Ministry of Health and the offices for recognition of qualifications in the Austrian federal countries.

Reference period: 1<sup>st</sup> January to 31<sup>st</sup> December.

Coverage:

- Included are practising nurses from a European country whose first qualification is recognised by the Austrian Ministry of Health.
- Included are practising nurses from all countries of qualification whose first qualification is recognised by the Austrian federal countries.
- Included are practising nurses.
- Excluded are nursing aids.

## **Poland**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: **Polish Supreme Chamber of Physicians and Dentists**.

Full title of the database: Central Register of Physicians and Dentists of the Republic of Poland.

The data have been taken from the Central Register of Physicians and dentists of the Republic of Poland. This is a register maintained by the Supreme Chamber, based on regional registers kept by

regional chambers of physicians and dentists (regional chambers award the right to practice the profession of a physician in Poland).

Coverage:

- Foreign-trained doctors holding the right to practice in Poland.
- Data regarding the countries of origin of the foreign diplomas not as detailed as requested, due to the fact that a large part of foreign medical diplomas comes from the former USSR (diplomas obtained until 1991), Czechoslovakia and Yugoslavia. Some of these diplomas are still listed as USSR diplomas, some are listed as diplomas from the countries that emerged from the USSR (former USSR republics). The same regards Czechoslovakia and Yugoslavia. Data in the category "Others (not elsewhere classified)" refer to not anymore existing countries, i.e. mainly the USSR.

Deviation from the definition: As an example we can indicate that out of 2 203 foreign medical diplomas (2012), 547 diplomas come from Ukraine, 206 from Belorussia, 54 from Germany and 52 from Czech Republic. 170 diplomas were awarded in ex-USSR. The numbers for Ukraine and Belorussia include all diplomas awarded after dissolution of USSR as well as some of the diplomas awarded on the territory of Ukrainian or Belorussian Republics during the time of USSR.

- There are minor differences between the total number of foreign-trained doctors and the sum of foreign-trained doctors by country of first qualification, which cannot be corrected yet. The Polish Physicians and Dentists Chamber is currently working on developing a new system that should help to solve this issue in future.

### **Annual Inflow of foreign-trained doctors**

Source of data: **Polish Supreme Chamber of Physicians and Dentists.**

Full title of the database: Central Register of Physicians and Dentists of the Republic of Poland.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Source of data: **Main Chamber of Nurses and Midwives.**

Full title of the database: Central Register of Nurses and Midwives, updated based on information provided by 45 regional registries of nurses and midwives.

[www.nipip.pl](http://www.nipip.pl).

- Data available since 2016.

### **Annual inflow of Foreign-trained nurses**

Source of data: **Main Chamber of Nurses and Midwives.**

Full title of the database: Central Register of Nurses and Midwives, updated based on information provided by 45 regional registries of nurses and midwives.

[www.nipip.pl](http://www.nipip.pl).

## **Portugal**

### **Foreign-trained doctors**

Source of data: **Statistics Portugal** and the **Portuguese Medical Association**. Series available at [www.ine.pt](http://www.ine.pt) [Médicos (N.º) por Local de residência; Anual].

Reference period: 31<sup>st</sup> December.

### **Foreign-trained doctors: number (stock)**

Coverage:

- Head count data.
- Includes all physicians registered in the Portuguese Medical Association at the time of data collection, practising or not practising medicine.

Deviation from the definition: The specialties Stomatology and Maxillo-facial surgery are included in the data.

**Foreign-trained doctors: annual inflow**

Coverage:

- Head count data.
- Includes all physicians registered in the Portuguese Medical Association at the time of data collection, practising or not practising medicine.

Deviation from the definition: The specialties Stomatology and Maxillo-facial surgery are included in the data.

Note: The total number of doctors reported in the “health workforce migration” module is slightly different from the number of physicians licensed to practice (reported in the “health employment” module) as the latter excludes the specialties Stomatology and Maxillo-facial surgery.

**Foreign-trained nurses**

**Stock of foreign-trained nurses**

Source of data: **Ordem dos Enfermeiros.**

Full title of the database: Gestão de Membros da Ordem dos Enfermeiros.

<http://www.ordemenfermeiros.pt/membros/DadosEstatisticos/2013/index.html>.

Coverage: 2002-2014.

- Data from 2002 to 2013 include foreign-born but domestically-trained nurses

Break in time series: 2014.

- From 2014, data exclude foreign-born but domestically-trained nurses.

**Annual inflow of Foreign-trained nurses**

Data not available.

**Romania**

**Foreign-trained doctors**

Source of data: Romanian College of Physicians; data as of December 31<sup>st</sup>.

Coverage: data refer to foreign-trained physicians who obtained full right to practice in Romania; physicians are classified based on their citizenship; included: foreign-trained doctors with temporary or occasionally practice licence; the licence is valid, according with the national legislation, for a maximum of one year;

Deviation from the definition:

Estimation method: -

Break in time series: -

Note: In 2017, the Romanian College of Physicians provided data by country of first qualification for both 2016 and 2015.

**Foreign-trained nurses**

Source of data: Order of Nurses, Midwives and Medical Assistants in Romania; data as of December 31<sup>st</sup>.

Coverage: The data refer to nurses licensed to practice and include foreign trained nurses who obtained full registration to practice in Romania.

Deviation from the definition:

Estimation method:

Break in time series:

## **Slovenia**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

##### **From 2016 onwards**

Source of data: **Medical Chamber of Slovenia**.

Full title of the database: Register of physicians.

Coverage: Full coverage of practising physicians (medical specialists and interns/residents).

##### **Until 2015**

Source of data: **National Institute of Public Health Slovenia**.

Full title of the database: National Healthcare Providers Database.

[http://www.ivz.si/Mp.aspx?ni=46&pi=5&\\_5\\_id=29&\\_5\\_PageIndex=0&\\_5\\_groupId=185&\\_5\\_newsCategory=&\\_5\\_action=ShowNewsFull&pl=46-5.0](http://www.ivz.si/Mp.aspx?ni=46&pi=5&_5_id=29&_5_PageIndex=0&_5_groupId=185&_5_newsCategory=&_5_action=ShowNewsFull&pl=46-5.0).

Coverage:

- Full coverage.
- Practising physicians (medical specialists and interns/residents) only.

Deviation from the definition:

- Data provided for physicians who graduated medicine in a foreign country. Data are reliable for those who graduated after 1990. Before 1990, there are many missing values in the database. These cases are added to Slovenia. Interpretation should therefore be very cautious.
- Slovenian citizens who studied abroad cannot be separated from foreigners who studied abroad.
- Data on country of medical specialty training not available.

Break in time series: 2016 – change in the data source.

#### **Annual Inflow of foreign-trained doctors**

Source of data: **Medical Chamber of Slovenia**.

Full title of the database: Register of physicians.

Coverage: Full coverage of practising physicians (medical specialists and interns/residents).

Break in time series: 2016 – change in the data source.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Source of data: **National Institute of Public Health Slovenia**.

Full title of the database: National Healthcare Providers Database.

[http://www.ivz.si/Mp.aspx?ni=46&pi=5&\\_5\\_id=29&\\_5\\_PageIndex=0&\\_5\\_groupId=185&\\_5\\_newsCategory=&\\_5\\_action=ShowNewsFull&pl=46-5.0](http://www.ivz.si/Mp.aspx?ni=46&pi=5&_5_id=29&_5_PageIndex=0&_5_groupId=185&_5_newsCategory=&_5_action=ShowNewsFull&pl=46-5.0).

#### Coverage:

- Full coverage.
- Practising nurses only.
- Includes professional nurses (according to the Joint Questionnaire methodology) only.

#### Deviation from the definition:

- Data provided for nurses who have graduated in a foreign country.
- Data are reliable for those who graduated after 1990. Before 1990, there are many missing values in database. These cases are added to Slovenia. Interpretation should therefore be very cautious. We are not able to separate Slovenian citizens who studied abroad from foreigners who studied abroad.

### **Annual inflow of Foreign-trained nurses**

Data not available.

## **Slovakia**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: **National Health Information Center.**

Full title of the database: National Register of Health Professionals.

#### Coverage:

- National Register of Health Professionals covers 60% of health professionals of the SR.
- Data match the proposed definition. Data include practising doctors providing services directly to patients.
- Total number of doctors includes also number/group of foreign- and domestically-trained doctors which cannot be selected and separated into certain category of foreign- or domestically-trained doctors (i.e. there are 4350 doctors of total number of doctors who cannot be selected into certain category in 2010 and 4268 doctors of total number of doctors who cannot be selected into certain category of foreign- or domestically-trained doctors in 2011):
  - In 2010, the total number of doctors consists of number of domestically-trained doctors+Foreign-trained doctors+number of doctors who cannot be separated into certain category, i.e. total number  $16575=11789+436+4350$ .
  - In 2011, the total number of doctors represents the same calculation: total number  $16899=12125+506+4268$ .

Note: At the present time, the National administrative register of the healthcare professionals (Register) is part of the Unified reference Data Base (URDB) of the Healthcare branch which is one of the key parts of the eHealth Implementation Programme in Slovakia. Full coverage of National administrative register of the healthcare professionals (Register) is expected to be in the future, in 2018. Register will be updated in accordance with deliverables linked to schedule of the eHealth Implementation Programme in Slovakia. It is expected that in the future there will be available only data from 2010 onwards.

### **Annual Inflow of foreign-trained doctors**

Data not available.

### **Foreign-trained nurses**

Data not available.

## Finland

### Foreign-trained doctors

General information: There has been a change in the organisation in 2009: The National Authority for Medicolegal Affairs (TEO) and the National Product Control Agency for Welfare and Health (STTV) merged in 2009 creating a new central office of the administrative sector of the Ministry of Social Affairs and Health known as the National Supervisory Authority for Welfare and Health (Valvira).

Data collection: Doctors (under retirement age) data from 2009 to 2012. Data from previous years is unfortunately not available for this survey. There is a break in the time series, because the two-stage process for licensing doctors to practice medicine in Finland discontinued May 1, 2011. Deviation from the definition is that Valvira does not register information about working status nor information about living abroad. The licensing is constantly valid (if not penalties or other reasons to stop or limit a doctor's right to practise).

### Stock of foreign-trained doctors

Source of data: National Supervisory Authority for Welfare and Health (Valvira).

Full title of the database: Central Register of Health Care Professionals.

Coverage: Data from 2009 to 2012 (doctor under retirement age, legalised in Finland, alive).

Deviation from the definition: Valvira does not register information about working status nor information about living abroad.

Break in time series: Two-stage process for licensing doctors to practice medicine in Finland discontinued May 1, 2011.

### Annual Inflow of foreign-trained doctors

Source of data: National Supervisory Authority for Welfare and Health (Valvira).

Full title of the database: Central Register of Health Care Professionals.

Coverage: Data from 2009 to 2012 (doctor under retirement age, legalised in Finland, alive). First year = 2009: data from previous organisation, new registered data annually 2010-2012.

Deviation from the definition: Valvira does not register information about working status nor information about living abroad.

Break in time series: Two-stage process for licensing doctors to practice medicine in Finland discontinued May 1, 2011.

### Foreign-trained nurses

General information: The National Authority for Medicolegal Affairs (TEO) and the National Product Control Agency for Welfare and Health (STTV) merged in 2009 creating a new central office of the administrative sector of the Ministry of Social Affairs and Health known as the National Supervisory Authority for Welfare and Health (Valvira).

Data collection: General nurses from 2009 to 2012 (under retirement age). Data from previous years are unfortunately not available for this survey.

### Stock of foreign-trained nurses

Source of data: National Supervisory Authority for Welfare and Health.

Full title of the database: Central Register of Health Care Professionals.

Coverage: General nurses from 2009 to 2012 (under retirement age, legalised in Finland, alive).

## **Annual inflow of Foreign-trained nurses**

Source of data: National Supervisory Authority for Welfare and Health.

Full title of the database: Central Register of Health Care Professionals.

Coverage: General nurses from 2009 to 2012 (under retirement age, legalised in Finland, alive).

## **Sweden**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: **National Board of Health and Welfare.**

Full title of the database: LOVA-register (change of register-name from former NPS-register).

Coverage: The database only contains information on the largest specific migration countries.

Doctors trained in countries outside the EU28 / ESS country are from 2015 reported in the category OTHERS (not elsewhere classified).

Breakpoint: Due to a changed method for collecting and processing data from 2015 onwards, data may differ more than from previous years in time series. Foreign-trained physicians without a Swedish license are not registered as physicians when undertaking clinical training as part of the licensing process and are therefore not included in employment data. The time series is revised from 2015 onwards. The data before 2015 do not sum up to the same total for practicing physicians as in the Excel file Health Employment where the time series is revised from 1995. Revising the entire time series backwards for stock of foreign-trained doctors would result in problems with quality for training country.

#### **Annual Inflow of foreign-trained doctors**

Source of data: **National Board of Health and Welfare.**

Full title of the database: LOVA-register (change of register-name from former NPS-register).

Coverage: The database only contains information on the largest specific migration countries.

Doctors trained in countries outside the EU28 / ESS country are from 2015 reported in the category OTHERS (not elsewhere classified). Due to a changed method for collecting and processing data from 2015 onwards, data may differ more than from previous years in time series.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Source of data: **National Board of Health and Welfare.**

Full title of the database: LOVA-register (change of register-name from former NPS-register).

Coverage: The database only contains information on specific countries of training for the largest migration countries within the EU/EEA + Switzerland agreement area. Nurses trained in countries outside the EU28 / ESS country are from 2015 reported in the category OTHERS (not elsewhere classified). Due to a changed method for collecting and processing data from 2015 onwards, data may differ more than from previous years in time series.

Breakpoint: The time series is revised from 2015 onwards. The data before 2015 do not sum up to the same total for practicing nurses as in the Excel file Health Employment where the time series is revised from 1995. Revising the entire time series backwards for stock of foreign-trained nurses would result in problems with quality of training country.

## **Annual inflow of Foreign-trained nurses**

Source of data: **National Board of Health and Welfare.**

Full title of the database: LOVA-register (change of register-name from former NPS-register).

Coverage: The database only contains information on specific countries of training for the largest migration countries within the EU/EEA + Switzerland agreement area. Last known year's data has been added and the year of 2015 has been revised. The rest of the time series has not been revised. Nurses trained in countries outside the EU28 / ESS country are from 2016 reported in the category OTHERS (not elsewhere classified).

## **Iceland**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Data not available.

#### **Annual inflow of foreign-trained doctors**

Source of data: Directorate of Health in Iceland, register of health care professionals.

Coverage: Register data, nationwide coverage. All physicians who have received their first degree in another country and have subsequently received registration in Iceland (full, limited, temporary, etc).

Break in time series: Data available as of 2017.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Data not available.

#### **Annual inflow of foreign-trained nurses**

Source of data: Directorate of Health in Iceland, register of health care professionals.

Coverage: Register data, nationwide coverage. All nurses who have received their first degree in another country and have subsequently received registration as nurses in Iceland.

Break in time series: Data available as of 2017.

## **Liechtenstein**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: Office of Public Health (Amt für Gesundheit), List of Physicians licensed to practice ("Ärzteliste"). Available from 2005 on.

Coverage: 100%

Deviation from the definition: from 2010 on interns are included. Those do not get a formal approval from the Amt für Gesundheit, but are registered. Therefore we do not have information on the first place of training in every case (= missing).

Estimation method: -

Break in time series: See also the questionnaire on health employment: From 2010 on the List includes Interns with adequate diploma providing services under supervision of other medical doctors during their postgraduate internship or residency in the “Landesspital” in Vaduz. The years before these persons are not included in the data.

### **Annual Inflow of foreign-trained doctors**

Source of data: Office of Public Health (Amt für Gesundheit), List of Physicians licensed to practice (“Ärzteliste”). Available from 2005 on.

Coverage: 100%

Deviation from the definition: from 2010 on interns are included. Those do not get a formal approval from the Amt für Gesundheit, but are registered. Therefore, we do not have information on the first place of training in every case (= missing).

Estimation method: -

Break in time series: See also the questionnaire on health employment: From 2010 on the List includes Interns with adequate diploma providing services under supervision of other medical doctors during their postgraduate internship or residency in the “Landesspital” in Vaduz. The years before these persons are not included in the data.

### **Foreign-trained nurses**

Data not available.

## **Norway**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: **Statistics Norway.** Statistics on health-care personnel. See: [www.ssb.no/hesospers\\_en/](http://www.ssb.no/hesospers_en/).

- Administrative registers.

Reference period: 3<sup>rd</sup> week of November.

Coverage:

- Data include all qualified physicians working within HP1-HP4. There is no guarantee that qualified physicians actually work as physicians, as data refer to education rather than employment (the job they hold).

- Native born is defined according to standard for Immigration category (2008), all codes except ‘B’ and practicing physicians not living in Norway (see codes below).

Code	Title
A	Born in Norway to Norwegian-born parents
B	Immigrants
C	Norwegian-born to immigrant parents
E	Foreign-born with one Norwegian-born parent
F	Norwegian-born with one foreign-born parent
G	Foreign-born to Norwegian-born parents

Inclusion:

- Persons who have completed studies in medicine at university level (granted by adequate diploma) and who are licensed to practice and working in HP1-HP4;

- Interns and resident physicians (with adequate diploma and providing services under supervision of other medical doctors during their postgraduate internship or residency in a health care facility);

- Salaried and self-employed physicians delivering services irrespectively of the place of service

provision;

- Foreign physicians licensed to practice and actively practicing in the country.

### **Annual Inflow of foreign-trained doctors**

Source of data: Helsepersonellregisteret (HPR) is the administrative register where you are required to be registered if you wish to work under the titles medical doctor or nurse (among many other medical titles), <https://ehelse.no/helseadministrative-registre/helsepersonellregisteret-hpr>.

Coverage: HPR covers all of Norway.

Deviation from the definition: It is possible to apply and be registered as a medical doctor in HPR without entering Norway. However, it is reasonable to assume that someone applying and paying the application-fee (NOK 1665) intends to enter Norway or is already located in Norway.

Break in time series: HPR was partially restructured in 2012. This restructuring effected how medical doctors are registered in HPR. Medical doctors generally receive different limited licenses which allow the doctor to work prior to receiving their final authorization as a medical doctor. Based on the inclusion criteria some of these licenses should be used as annual inflow, however prior to 2013 these limited licenses were not recorded and stored permanently in a structured way. This means that prior to 2013 some medical doctors may have obtained their first limited license prior to what is recorded in HPR. The total numbers of inflow should not be off by much, but the year they were first registered might be. Even with these issues the numbers should be a very good estimate of annual inflow of medical doctors.

### **Foreign-trained nurses**

#### **Stock of foreign-trained nurses**

Source of data: **Statistics Norway**, Statistics on health-care personnel. Administrative registers. See: [http://www.ssb.no/hesopers\\_en/](http://www.ssb.no/hesopers_en/).

Reference period: 3<sup>rd</sup> week of November.

Coverage:

- Data include all qualified nurses working within HP1-HP4. There is no guarantee that qualified nurses actually work as nurses, as data refer to education rather than employment (the job they hold).
- Native born is defined according to standard for Immigration category (2008), all codes except 'B' and practicing physicians not living in Norway (see codes below).

Code	Title
A	Born in Norway to Norwegian-born parents
B	Immigrants
C	Norwegian-born to immigrant parents
E	Foreign-born with one Norwegian-born parent
F	Norwegian-born with one foreign-born parent
G	Foreign-born to Norwegian-born parents

Inclusion:

- Professional nurses.
- Foreign nurses licensed to practice and actively practicing in the country and working in HP1-HP4.

### **Annual inflow of Foreign-trained nurses**

Source of data: Helsepersonellregisteret (HPR) is the administrative register where you are required to be registered if you wish to work under the titles medical doctor or nurse (among many other medical titles), <https://ehelse.no/helseadministrative-registre/helsepersonellregisteret-hpr>

Coverage: HPR covers all of Norway.

Deviation from the definition: It is possible to apply and be registered as a nurse in HPR without entering Norway. However, it is reasonable to assume that someone applying and paying the application-fee (NOK 1665) intends to enter the Norway or is already located in Norway.

## Switzerland

### Foreign-trained doctors: number (stock)

Source of data: Swiss Medical Association FMH. Direct contact: Ms Esther Kraft, Head of Department DDQ, 031 359 11 70, [esther.kraft@fmh.ch](mailto:esther.kraft@fmh.ch).

Full title of the database: Physicians statistics.

[http://www.fmh.ch/fr/services/statistique/statistique\\_medicale.html](http://www.fmh.ch/fr/services/statistique/statistique_medicale.html).

Coverage: It is estimated that about 4000 physicians working in hospital as assistant are not counted in these statistics.

Deviation from the definition: Definition I: Practising physicians; definition II: PData refer to professionally active physicians (including those working in the health sector as managers, educators, researchers, etc. in addition to practising physicians).

### Foreign-trained doctors: annual inflow

Source of data: Symic, analysis by Obsan (Swiss Health Observatory).

Full title of the database: Système d'information central sur les migrations.

Coverage: Practising physicians, includes medical interns.

- Data by country are based on the place of training.

Deviation from the definition: Foreign-trained: Numbers of residence permits, settlement permits and cross-border commuter permits delivered to physicians of foreign nationality. (Swiss citizens trained abroad are not included in the data).

### Foreign-trained nurses: number (stock)

Source of data: FSO Swiss Federal Statistical Office.

Full title of the database: Administrative Hospital Statistics.

<http://www.bfs.admin.ch/bfs/portal/fr/index/themen/14/03/01.html>.

Coverage:

- Only nurses employed in a hospital. The figures are not representative of the health system, because employment of foreign-trained nursing personal is assumed to be significantly less important in nursing home, home care or other ambulatory care services. The figures must not be disseminated without this methodological warning.

- Many hospitals do not fill the basic questionnaire for data on the origin of the diploma.

Deviation from the definition: Foreign-trained: Origin of diploma of professionals employed in hospitals. Only limited information available concerning the countries covered.

### Foreign-trained nurses: annual inflow

Source of data: Symic, analyse by Obsan (Swiss Health Observatory).

Full title of the database: Système d'information central sur les migrations.

Coverage: Practising nurses, includes nurses trained at the tertiary level. It should be noted that in Switzerland, the nursing workforce is composed, to a considerable extent, of nurses trained at the secondary level.

- Data by country are based on the place of training.

Deviation from the definition: Foreign-trained: Numbers of residence permits, settlement permits and cross-border permits delivered to nurses of foreign nationality. (Swiss citizens trained abroad are not included in the data).

## Montenegro

### Foreign-trained doctors

Data not available.

### Foreign-trained nurses

Data not available.

## North Macedonia

### Foreign-trained doctors

Data not available.

### Foreign-trained nurses

Data not available.

## Albania

### Foreign-trained doctors

Data not available.

### Foreign-trained nurses

Data not available.

## Serbia

### Foreign-trained doctors

#### Stock of foreign-trained doctors

Source of data: Serbian Medical Chamber, Data as of December 31

Coverage: Data for Kosovo-Metohija province are not included in the coverage of data for the Republic of Serbia. The data cover both the public and private sector.

Deviation from the definition:

Estimation method: Data on % of foreign-trained doctors should be considered as an estimation ,there is no information regarding the country of first medical qualification for 20% doctors. After the breakup of Yugoslavia, a large number of doctors who obtained diplomas in other Republics (nowadays independent countries: North Macedonia, Croatia, Slovenia, Montenegro, and Bosnia and Herzegovina) are still working in Serbia. Since 2018, according to the new Law on Higher Education, doctors with diplomas obtained in former republics of Yugoslavia are not considered anymore as educated abroad.

Break in time series: Since 2018, according to the new Law on Higher Education, doctors with diplomas obtained in former republics of Yugoslavia are not considered as educated abroad.

## **Annual Inflow of foreign-trained doctors**

Source of data: Serbian Medical Chamber, Data as of December 31

Coverage: Data for Kosovo-Metohija province are not included in the coverage of data for the Republic of Serbia.

Deviation from the definition:-

Estimation method:-

Break in time series:-

## **Foreign-trained nurses**

Data not available.

## **Turkey**

### **Foreign-trained doctors**

#### **Foreign-trained doctors: number (stock)**

Source of data: **General Directorate for Health Information Systems, General Directorate for Health Services, Ministry of Health.**

Reference period: End of the calendar year.

Coverage: Data cover doctors who licensed for practice in Turkey after year of 2000. Doctors who do not work in Turkey anymore after then due to some reasons (death, retirement, no working in Turkey, etc..) exist in stock number of doctors, although they licensed after 2000.

**Total Number of Doctors:** This figure includes Specialists, GPs and Resident Physician who are professionally active.

**Domestically Trained Doctors:** These figures include doctors who have obtained their first medical qualification (degree) in Turkey and also include foreign trained doctors who licensed before 2000.

**Foreign trained doctors:** The number of doctors who have obtained their first medical qualification (degree) in another country and are authorised by the Ministry of Health of the Republic of Turkey for working permits.

**Foreign-trained doctors - of which native-born but foreign-trained:** The number of native born doctors who have obtained their first medical qualification (degree) in another country and are authorised by the Ministry of Health of the Republic of Turkey for working permits.

Estimation method/Deviation from the definition: The data account foreign-trained doctors who have been licensed to practice in Turkey from 2000 only. Furthermore, foreign-trained doctors who have left the health workforce for any reasons (death, retirement, not working in Turkey anymore, etc.) cannot be deleted from the data. Hence, the stock data correspond to the sum of the annual inflow data since 2000.

#### **Foreign-trained doctors: annual inflow**

The number of doctors who have obtained their first medical qualification in other country and are receiving a new authorization in a given year to practice in Turkey.

### **Foreign-trained nurses**

#### **Foreign-trained nurses: number (stock)**

Source of data: **General Directorate for Health Information Systems, General Directorate for Health Services, Ministry of Health.**

Reference period: End of the calendar year.

Coverage: Data cover nurses who licensed for practice in Turkey after year of 2000. Nurses who do not work in Turkey anymore after then due to some reasons (death, retirement, no working in Turkey, etc..) exist in stock number of nurses, although they licensed after 2000.

Total Number of Nurses: This figure includes nurses who are professionally active.

Domestically Trained Nurses: These figures include nurses who have obtained their first medical qualification (degree) in Turkey and also include foreign trained nurses who licensed before 2000.

Foreign trained nurses: The number of nurses who have obtained their first medical qualification (degree) in another country and are authorised by the Ministry of Health of the Republic of Turkey for working permits.

Foreign-trained nurses - of which native-born but foreign-trained: The number of native born nurses who have obtained their first medical qualification (degree) in another country and are authorised by the Ministry of Health in the Republic of Turkey for working permits.

- Others including Kosovo.

Estimation method/Deviation from the definition: The data account Foreign-trained nurses who have been licensed to practice in Turkey from 2000 only. Furthermore, Foreign-trained nurses who have left the health workforce for any reasons (death, retirement, not working in Turkey anymore, etc.) cannot be deleted from the data. Hence, the stock data correspond to the sum of the annual inflow data since 2000.

### **Foreign-trained nurses: annual inflow**

The number of nurses who have obtained their first medical qualification in other country and are receiving a new authorization in a given year to practice in Turkey.

## **United Kingdom**

### **Foreign-trained doctors**

#### **Stock of foreign-trained doctors**

Source of data: 2018: Data supplied is from England (NHS Digital) and Scotland (ISD Scotland) only. Wales and Northern Ireland were unable to provide data.

**ISD Scotland, Welsh Government and NHS Digital source England's** data from the following:

\* Hospital and Community Health Services (HCHS) Doctors - 2000-2008: Medical & Dental Workforce Census; 2009-2017: NHS Hospital & Community Health Service (HCHS) workforce statistics.

\* General Practitioners (GPs) - 2000-2015: General & Personal Medical Services Statistics; 2015-2017: Primary Care Workforce Tool.

**Scotland**: Specialist medical practitioners data sourced from SWISS. GP data sourced from the GP Contractor Database.

**Wales**: GMS Census.

Coverage:

- Data are for England, Wales and Scotland only; Northern Ireland was not able to submit data.

- UK nationals are included in the country they were trained in, as data are based on the nation of training and not nationality. All UK nationals trained within the UK will appear in the 'Domestically-trained doctors' row.

- Due to the new GP workforce collection method, some individuals in the 2015 GP workforce data have conflicting country of qualifications attributed to them. It is for this reason that individual parts may not be the sum of the totals provided. Also a large number of GPs have an unknown country of

qualification. This may slightly skew the '% of **Foreign-trained doctors**' row which according to the formula in the table supplied to us is based on all doctors (not just those with a known country of qualification).

- Country of qualification Serbia and Montenegro cannot be split in the HCHS or GP workforce statistics. All relevant staff are recorded against Serbia.

- **Scotland** figures are in headcount - this will include a small element of double counting as medics can work across more than one specialty. Due to the different sources of data there will be double counting of HCHS physicians with a specialty of General Practice and General medical practitioners.

- Medics may be counted twice in the split of country of qualification but will only be counted once in the total figure (i.e. they may have unspecified country of qualification recorded for one of their posts).

- Other West Indies has had to be added: it includes Jamaica, Barbados and Trinidad & Tobago which cannot be separated in the NHS workforce census data.

- **England:** Revisions made in 2018: Hospital and Community Health Services (HCHS) Doctors: 2009-2014 data were previously rolecount - they are now headcount so 2009-2017 data are consistent, General Practitioners (GPs): Data have been revised for all years, GP Retainers are now included for all years having previously being excluded. All Doctors (HCHS and GP) in 2000-2016: In previous submissions doctors with an unknown country of qualification were included in 'OTHERS (not elsewhere classified)'. However, these data have been removed from 'OTHERS (not elsewhere classified)' and now only appear in 'Unknown place of training'.

- **England:** 2009-2017: Some HCHS Doctor data (2009-2017) and GP data (2015-2017) have conflicting country of qualifications attributed to them. It is for this reason that the sum of individual parts may not equal the totals provided. 2015-2017: A large number of GPs have an unknown country of qualification. All years HCHS & GP: Country of qualification Serbia and Montenegro cannot be split. All relevant staff are recorded against Serbia.

- **England:** Ophthalmic Medical Practitioners (OMPs) are not included in the stock data.

- **Scotland:** Dentists and oral maxillofacial surgeons have been excluded, GP Performer retainers have been excluded. All grades of medics have been included (including directors).

- **Wales:** 2008-2012: Data include the number of GPs in both hospitals and practices. However, there is a small risk of some double counting in this table (GPs who work in both a GP practice and in a hospital). 2013 onwards: Data include GPs in hospitals and practices; additionally, they now include hospital and community doctors.

#### **All countries:**

- The data exclude the private sector.

- It is possible that some numbers from the 'Other' section may contain 'European - Unspecified' and by default may contain some UK numbers.

Deviation from the definition: Figures are only available as at 30<sup>th</sup> September for each year.

Break in time series: There are breaks in the time series in 2009 and 2015 which relate to changes in the collection methodology:

- 2009: HCHS data changed from an annual census collection to monthly workforce statistics from the Electronic Staff Record (ESR).

- 2015: GP data changed from an annual census collection to a quarterly collection from the Primary Care Workforce Tool (PCWT).

#### **Foreign-trained doctors: annual inflow**

Source of data: **The General Medical Council (GMC):** List of Registered Medical Practitioners. All doctors with a primary medical qualification from outside the UK who were granted their first registration to practice in the UK in each year. <http://www.gmc-uk.org/doctors/register/LRMP.asp>

Coverage: The data cover all doctors with a primary medical qualification from outside the UK who were granted their first registration to practice in the UK in each year. Registrations are granted throughout the year, and these are the annual totals.

- As they are not explicitly listed, the following have been rolled under 'OTHERS (not elsewhere classified)' but can be reported separately if requested: Cayman Islands, Hong Kong, Kosovo, Montserrat, Palestinian Territories, Puerto Rico, Sint Maarten, Taiwan and Saba.

Deviation from the definition: Foreign trained doctors are listed by country of the first qualification that meets the requirements to register as a doctor in the UK. If the doctor also holds an earlier medical qualification that did not meet the requirements to register as a doctor in the UK, this would not be recorded in the table. The figures may include UK nationals who studied a primary medical qualification abroad in that country.

Further Information: <http://www.gmc-uk.org/publications/10586.asp>.

## **Foreign-trained nurses**

### **Foreign-trained nurses: stock and annual inflow**

Source of data: **Nursing and Midwifery council (NMC)**. Title of the original survey collection - Wiser Database.

Reference period (Stock): As of 31 December.

Coverage: Data cover the whole UK, and cover both private and public sector. Data include all registered nurses.

- In 2020, the time series have been revised for both stock and annual inflow of foreign-trained nurses, in order to exclude the midwives that were previously included in the data.

Deviation from the definition: The data supplied match the proposed joint definition.

Estimation method: The data are not an estimation or interpolation.

Break in time series: There is no break in the time series.