1.1. Foreign-trained nurses (% of nurses licensed to practice) (S-16)

1.1.1. Documentation sheet

Description	**Primary indicator:** Foreign-trained nurses as a proportion of nurses with a licence to practise ("*visa-visum*", stock) **Secondary indicators**: Foreign-trained nurses as a proportion of professionally active nurses on the Belgian labour market and as a proportion of practising nurses (stock) Nursing graduates with a foreign diploma (new inflow)
Calculation	**Primary indicator:** Foreign nurses as a proportion of nurses with a licence to practise • Numerator: Number of foreign-trained nurses (foreign diploma or diploma with an unknown country of origin) (Stock) • Denominator: Total number of nurses licensed to practice (Belgian-trained nurses and foreign-trained nurses, Stock) **Secondary indicators:** Foreign-trained nurses as a proportion of professionally active nurses on the Belgian labour market and as a proportion of practising nurses (stock) • Numerator: Number of nurses with a foreign diploma or a diploma with an unknown country of origin who are professionally active on the Belgian labour market / who are practising in the health sector • Denominator: Total number of professionally active nurses on the Belgian labour market / practising nurses Nursing graduates with a foreign diploma (new inflow) • Numerator: Number of nursing graduates with a foreign diploma or a diploma with an unknown country of origin (new inflow) • Denominator: Total number of nursing graduates (Belgium diploma and Foreign/unknown diploma, new inflow)
Rationale	Nurses play a critical role in providing health care in hospitals and long-term care institutions, but also in primary care and in the home care setting. In addition, they are in most countries the largest group of healthcare professionals. Monitoring the number of foreign-trained nurses is therefore important in light of the accessibility and sustainability of the healthcare system. These are essential figures for workforce planning.[1] Some European countries also opt for strong recruitment strategy to recruit foreign-educated nurses.[1] The

World Health Assembly adopted in May 2010 "The Global Code of Practice on the International Recruitment of Health Personnel"[2] to promote a more ethical recruitment of health personnel and to encourage countries to achieve greater "self-sufficiency" in the training of health workers.

Data source	**Main indicator:** Federal database of health care professionals ("Cadastre/Kadaster"), Federal Public Service Health, Food Chain Safety and Environment (FPS Public health). Data were extracted on December 2022. As the database is constantly being updated and corrected, there may be differences in data depending on the date of extraction. OECD Health statistics for the international comparison.
	Secondary indicator:
	Foreign-trained nurses as a proportion of professionally active nurses on the Belgian labour market / as a proportion of nurses practising in the health sector (stock): Results from "PlanCad" 2004-2018, Federal database of health care professionals, FPS Public health[3] It should be noted that data from the PlanCad slightly differ from the workforce statistics (HWF STATAN), also published by the FPS Public health, because of another extraction period and a larger selection in the PlanCad (e.g. inclusion of people with a midwife diploma registered as nurse in the cadastre).
	Nursing graduates with a foreign diploma (new inflow): Federal database of health care professionals ("Cadastre/Kadaster"), FPS Public health. Data were extracted on December 2022. As the database is constantly being updated and corrected, there may be differences in data depending on the date of extraction.
Technical definitions	**Main indicator:**
	Foreign-trained nurses is defined as nurses who have obtained a recognised qualification in nursing in another country and have obtained a nursing "visa/visum" to practice in Belgium ("licence to practice" at the end of the year)
	The number of foreign-trained nurses is based on the number of "visa/visum" delivered by the FPS Public health, registered in the federal registry ("Cadastre/Kadaster"). Only the first "visa/visum" delivered is taking into account.
	People with an unknown diploma are included in foreign-trained nurses (for information, data are also presented without including them).
	Secondary indicator:
	Foreign-trained nurses professionally active on the Belgian labour market are defined as nurses who have obtained a recognised qualification in nursing in another country and are professionally active on the Belgian labour market. A nurse is considered as professionally active when he/she is registered as self-employed person into National Institute for the Social Security of the Self-employed (NISSE) database or when he/she is registered as salaried worker into National Social Security Office (NSSO) database with at least 0.1 full time equivalent (FTE) per year. The threshold of 0.1 FTE per year has been established by the working group on nurses within the Planning Unit for the Supply of Healthcare Professions of the FPS Public Health.[3]
	Foreign-trained nurses practising in the health sector are defined as nurses who have obtained a recognised qualification in nursing in another country and are active in the health sector. A nurse is considered as active in the health sector when he/she is registered as self-employed into NISSE database and had provided a minimum level of services per year (at least 10% of the activity level of a full time self-

	employed, i.e. 817 services in 2018 based on RIZIV-INAMI nomenclature) or when she/he is registered as salaried worker into NSSO database with at least 0.1 full time equivalent (FTE) per year and is working for an active employer in the health sector.[3]
	A nursing graduate is a person who has been trained to carry out nursing tasks. Nursing graduates have successfully completed a three-year (3.5 years since 2016 in the French community) advanced vocational training course (A2 or HBO-5 leading to obtain a diploma degree) or a three-year (before 2016) / four-year (since 2016) Bachelors' programme Nursing training course (A1 or bachelor leading to obtain a bachelor degree). The number of nursing graduates is based on the number of "visa/visum" delivered by the FPS Public Health, which are registered in the federal cadastre. Only the first "visa/visum" delivered is taking into account.
Limitations	The main indicator, which allows an international comparison, refers to foreign-trained nurses with license to practice and not practising nurses or professionally active nurses.
International comparability	International comparability is partially limited due to methodological differences (some countries refer to practising nurses and others to holders of a licence to practice).
Dimension	Sustainability – Workforce capacity
Related indicators	Practising nurses (A-11), nursing graduates (S-8), nurses following the bachelor routes (S-9); nurses aged 50 years old and over (S-10); foreign-trained nurses (S-16), projection of the number of nurses active in the healthcare sector (S-22)
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1.1.2. Results

1.1.2.1. Foreign-trained nurses (% nurses licensed to practice, Stock)

Belgium

In 2021, 4.2% of all nurses licensed to practice in Belgium are foreign-trained nurses (n = 9488). This proportion increased from 1.5% in 2010 to 4.2% in 2021 (and from 1.2% to 3.9% by excluding unknown diploma, see Table 2).

Analysis by demographic characteristics

As for Belgian-trained nurses, there is a higher proportion of female foreign-trained nurses than male (respectively 80.2% and 19.8%, see Table 1). The share of foreign-trained nurses aged less than 55 years old is nevertheless higher (almost 90% of them compared to 60.5% for Belgian-trained nurses). Around 76% of foreign-trained nurses does not have the Belgian nationality and 58.5% of foreign-trained nurses have their place of residence in Belgium.

International comparison

The proportion of foreign-trained nurses is much lower than the proportion of foreign-trained physicians (4.2% in 2021 compared to 13.2% for foreign-trained physicians, see Table 3 and S-14). The proportion of foreign-trained nurses licensed to practice in Belgium is similar to the European averages in 2020 (see Table 3 and Figure 1). Since 2010, the trend of foreign-trained nurses licensed to practice has gradually increased in Belgium (from 1.5% in 2010 to 4.1% in 2020, +2.7 percentage points) and the increase was more important in Belgium than the EU averages (+2.1 percentage points for EU-14 and +0.6 percentage points for EU-27).

Impact of COVID-19 pandemic

In Belgium, the trend remained similar before and during the COVID-19 pandemic.

Table 1 – Foreign-trained nurses by personal characteristics (2021)

		2021
Foreign-trained nurses in Belgium (including unknown diploma)		9488
Foreign-trained nurses in Belgium (excluding unknown diploma)		
Gender	Female	7605 (80.2%)
	Male	1883 (19.8%)
Age group	<35	3198 (33.7%)
	35-44	3149 (33.2%)
	45-54	1913 (20.2%)
	55-64	852 (9%)
	65-74	304 (3.2%)
	>74	72 (0.8%)
Belgian nationality*	Yes	2046 (23.3%)
	No	6701 (76.2%)
	Unknown	51 (0.6%)
Place of residence**	Residence in Belgium	5554 (58.5%)
	Residence abroad	3332 (35.1%)
	Unknown	602 (6.3%)

Source: FPS Public health, Cadastre; **Belgian nationality at the time of the data extraction (December 2022); ***Residence at the end of the visa/visum year (31/12)

Table 2 – Foreign-trained nurses as a proportion of nurses licensed to practise in Belgium, evolution 2010-2021

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total nurses licensed to practice		165 387	169 469	174 233	179 761	185 476	192 017	198 335	204 490	210 776	214 247	218 758	223 688
Country diploma	Belgian diploma	162 886	166 517	170 362	174 967	179 849	185 688	191 437	197 155	202 840	205 825	209 780	214 200
	Foreign diploma	1 930	2 281	3 160	4 085	4 919	5 623	6 194	6 632	7 236	7 727	8 284	8 798
	Unknown	571	671	711	709	708	706	704	703	700	695	694	690
% Foreign-trained nurses (including unknwon diploma)		**1.5%**	**1.7%**	**2.2%**	**2.7%**	**3.0%**	**3.3%**	**3.5%**	**3.6%**	**3.8%**	**3.9%**	**4.1%**	**4.2%**
% Foreign-trained nurses (excluding unknown diploma)		1.2%	1.3%	1.8%	2.3%	2.7%	2.9%	3.1%	3.2%	3.4%	3.6%	3.8%	3.9%

Source: FPS Public health, Cadastre

Table 3 – Foreign-trained nurses as a proportion of nurses licensed to practice, Belgium and EU averages, evolution 2010-2021
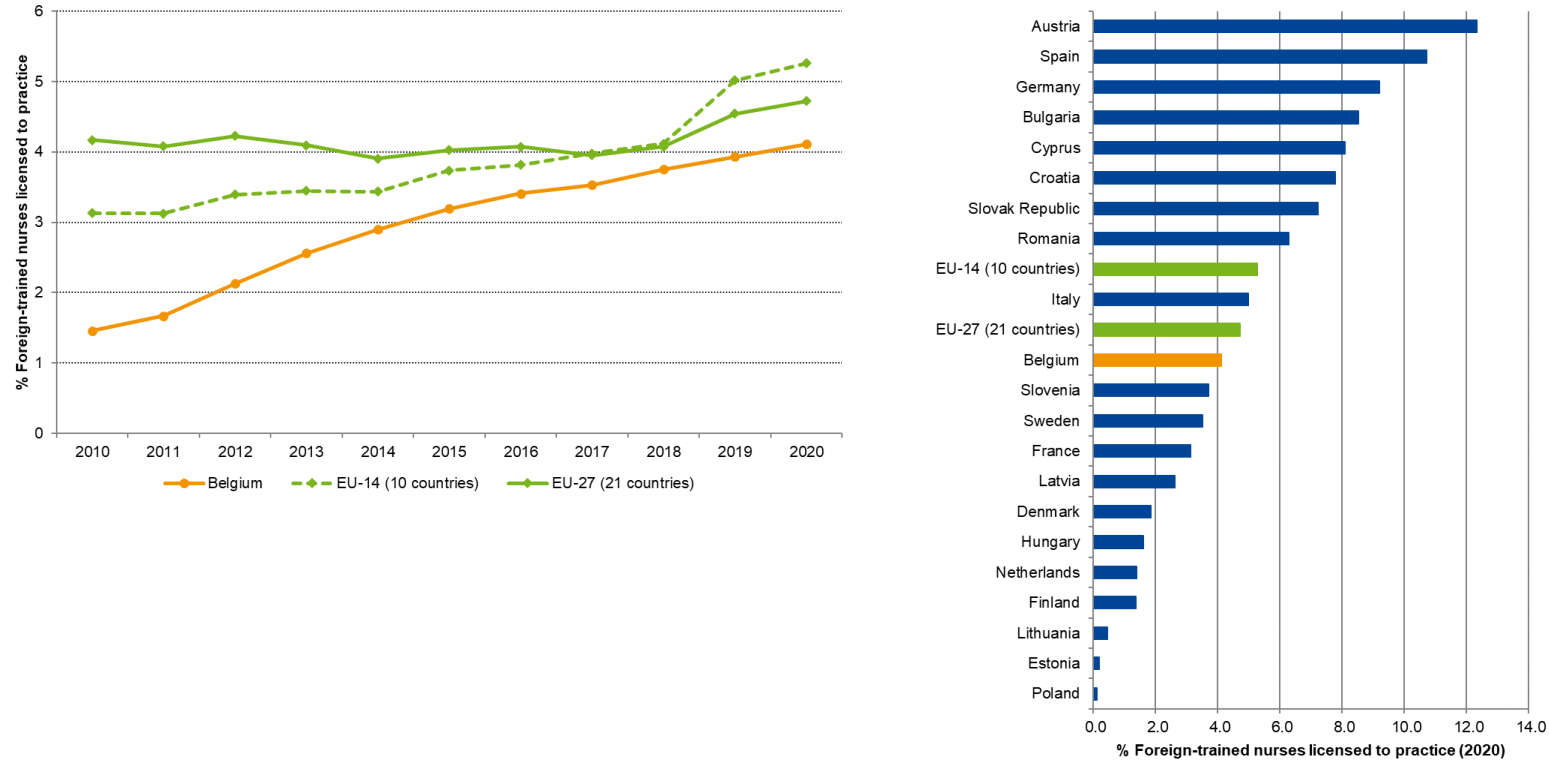
Year (OECD)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021*
Belgium	1.46	1.67	2.13	2.56	2.90	3.19	3.41	3.53	3.75	3.93	4.11	4.26
EU-14 (10 countries)	3.13	3.13	3.39	3.45	3.43	3.73	3.82	3.98	4.12	5.02	5.26	
EU-27 (21 countries)	4.17	4.08	4.22	4.09	3.91	4.03	4.07	3.95	4.07	4.54	4.72	

*Source: OECD Health Statistics 2021[a]; * Because of the lack of data from other European countries in 2021, EU averages for 2021 are not presented*

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[a]   Data extracted from OECD Health Statistics 2021 are slightly different from original data source from FPS Public health, Cadastre.

Figure 1 – Foreign-trained nurses as a proportion of nurses licensed to practice: international comparison (2010-2020)[b]

Source: OECD Health data 2023;

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[b]   Because of the lack of data from other European countries, 2020 is taken as the reference in the calculation (instead of 2021).

1.1.2.2. Foreign-trained nurses as a proportion of professionally active on the Belgian labour market / of practising nurses (Stock)

In 2018, there were 148 782 (117 382 FTE) professionally active nurses on the Belgian labour market in Belgium (see Table 4) and 126 496 (107 514 FTE) practising nurses. Among those, around 3.1% and 3.3% were foreign-trained[c] nurses respectively (3.3% and 3.5% in FTE).

1.1.2.3. Nursing graduates with a foreign diploma or a diploma from an unknown country (% nursing graduates, new inflow)

Regarding the new inflow, the proportion of nursing graduates with a foreign diploma or a diploma from an unknown country varied between 6.7 and 16.4% over the years (2010-2021 period, see Table 5). In 2021, a total of 531 nurses with a foreign diploma received a visa/visum to practise in Belgium (see Table 5). Between 2013 and 2017, the number of visa/visum delivered to nurses with a foreign diploma was decreasing, it increased in 2018 and remained above 2017 levels between 2019 and 2021.

Table 4 – Professionally active nurses on the Belgian labour market and practising nurses, per origin of diploma (2018)

	Professionally active nurses		Practising nurses	
	N (%)	FTE (%)	N (%)	FTE (%)
Belgian diploma	144 165 (96.9%)	113 565 (96.7%)	122 342 (96.7%)	103 725 (96.5%)
Foreign diploma or diploma with unknown country of origin	4617 (3.1%)	3817 (3.3%)	4154 (3.3%)	3789 (3.5%)
Total	148 782 (100%)	117 382 (100%)	126 496 (100%)	107 514 (100%)

Source: PlanCad nurses 2004-2018.[3]

Table 5 – Nursing graduates, per origin of diploma, evolution 2010-2021

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Belgian diploma	4102 (91.5%)	4735 (91.2%)	4734 (83.6%)	5121 (84.7%)	5460 (86.7%)	5682 (88.9%)	6239 (91.5%)	6358 (93.3%)	6446 (91.2%)	3806 (88.2%)	4942 (89.7%)	5304 (90.9%)
Foreign diploma or diploma with unknown country of origin	380 (8.5%)	455 (8.8%)	931 (16.4%)	928 (15.3%)	841 (13.3%)	708 (11.1%)	580 (8.5%)	454 (6.7%)	620 (8.8%)	510 (11.8%)	566 (10.3%)	531 (9.1%)

Source: FPS Public health, Cadastre

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[c] Including unknown diploma

Key points

- **Among all nurses licensed to practise in Belgium, the share of foreign-trained nurses is increasing over time (from 1.5% in 2010 to 4.2% in 2021 by including unknown diploma and from 1.2% in 2010 to 3.9% in 2021 by excluding unknown diploma).**

- **The proportion of foreign-trained nurses is much lower than the proportion of foreign-trained physicians (13.2% in 2021).**

- **In 2020, the proportion of foreign-trained nurses licensed to practice in Belgium is similar to the European averages (EU-14 and EU-27) but the increase between 2010 and 2020 was more important in Belgium than EU averages (+2.7 percentage points in Belgium, +2.1 percentage points for EU-14 and +0.6 percentage points for EU-27).**

References

1.   OECD. Health at a Glance 2017: OECD Indicators. Paris: 2017. Available from: http://dx.doi.org/10.1787/health_glance-2017-en

2.   WHO. Global Code of Practice on the International Recruitment of Health Personnel Copenhagen: World Health Organization; 2010. Available from: http://www.who.int/hrh/resources/code_implementation/en/

3.   Vivet V, Durand C, Jouck P, Miermans P-J, Steinberg P, Groupe de travail Infirmiers de la Commission de planification de l'offre médicale. PlanCad Infirmiers 2004-2018. Bruxelles: Cellule Planification des professions de soins de santé, Service Professions des soins de santé et pratique professionnelle, DG Soins de santé, SPF Santé publique, Sécurité de la chaîne alimentaire et Environnement; 2021. Available from: https://organesdeconcertation.sante.belgique.be/fr/documents/hwf-infirmiers-sur-le-marche-du-travail-2004-2018