

1.1. Number of nursing vacancies in hospitals (R-3)

1.1.1. Documentation sheet

Description	Number of nursing vacancies in hospitals
Calculation	Absolute number of vacancies for hospital nurses (Master's degree, Bachelor's degree (A1) and Diploma degree (A2)): head count and Full-time equivalents (FTE)
Rationale	<p>For more than two decades nursing shortages are reported in most industrialised countries, a problem that will only accelerate by the ageing population (and the ageing nursing workforce) and the recent COVID-19 pandemic.^{1,2}</p> <p>In Belgium, the nursing profession is labelled as a profession for which it is difficult to fill vacancies, especially in hospitals. Monitoring nursing shortages via the number of unfilled vacancies is therefore important in light of the sustainability of the healthcare system. Moreover, the nursing workforce is the largest healthcare profession,³ for which shortages can cause problems with the accessibility (e.g. waiting lists) or quality (e.g. to high patient-to-nurse ratios) of healthcare services.</p>
Data source	Survey of 'hospital statistics' performed by the FPS Health, Food Chain Safety and Environment (FPS Public Health) ⁴
Technical definitions	The yearly survey of 'hospital statistics' ⁴ performed by the FPS Public Health contains, since 2013, a question about the number of unfilled vacancies. The number of vacancies is defined as 'the number of vacancies for which a call (intern/extern) is launched'. Hospitals are asked to complete this question for 4 moments in time: 31/03; 30/06; 30/09; 31/12. Data are collected by level of education: Master's degree; Bachelor's degree; Diploma degree.
International comparability	There is no international benchmark available.
Limitations	<p>In 2013, coding problems encountered for Wallonia, 2013 data are therefore not reported. During 2020, data were not reported by hospitals (to reduce their administrative workload). It is therefore not possible to precisely determine the magnitude of the disruption during the COVID-19 pandemic.</p> <p>The number of vacancies may also reflect higher turnover and not necessarily vacancies that remain unfilled. It would have been better to have data on hard-to-fill vacancies, but unfortunately this data is not available.</p>
Dimension	Resilience and sustainability
Related performance indicators	A-11 Practising nurses; S-8 Nursing graduates; R-1 Healthcare professionals who consider leaving the profession; R-2 Number of hospital bed closures due to staff absenteeism or force majeure
Reviewer	Nadia Benahmed



1.1.2. Results

Belgium

Table 1 shows the number of nursing vacancies reported by Belgian hospitals on December 31, 2021. There was a total of 2 735 nurses vacancies (2 572 in full-time equivalent (FTE)). Around three quarter of nursing vacancies concerned nurses with bachelor's degree (A1) followed by diploma A2 (around 18%) and master's degree (around 6%) (both in head count and in FTE). Figure 1 shows that the number (in FTE) of nursing vacancies in hospitals in Belgium increased progressively up to 2019 (+62.7% between December, 31 2014 and December 31, 2019), with a higher increase for nurses with a bachelor's degree (+74.5%, vs +34.9% and +38.6% for master's degree and diploma degree (A2) respectively). An important increase was then observed in 2021 (see also below, the impact of the COVID-19 pandemic)

Regional comparison

In 2021, there were a total of 1 391 (1 293.6 in FTE) nurses vacancies in hospitals in the Flemish region, 757 (704.6 in FTE) in the Walloon region, and 587 (573.9 in FTE) in the region of Brussels Capital. Figure 2 shows that the 2014-2019 increase was less important in Brussels (+34.0%) than in Flanders (+68.0%) or Wallonia (+83.7%).

Impact of COVID-19 pandemic

As shown in Figure 1 and Figure 2, an increase in the number of nurses vacancies in hospitals (in FTE) can be observed during the COVID-19 pandemic, with a peak of +68.2% in September 2021 (compared to September 2019, Belgium vacancies).

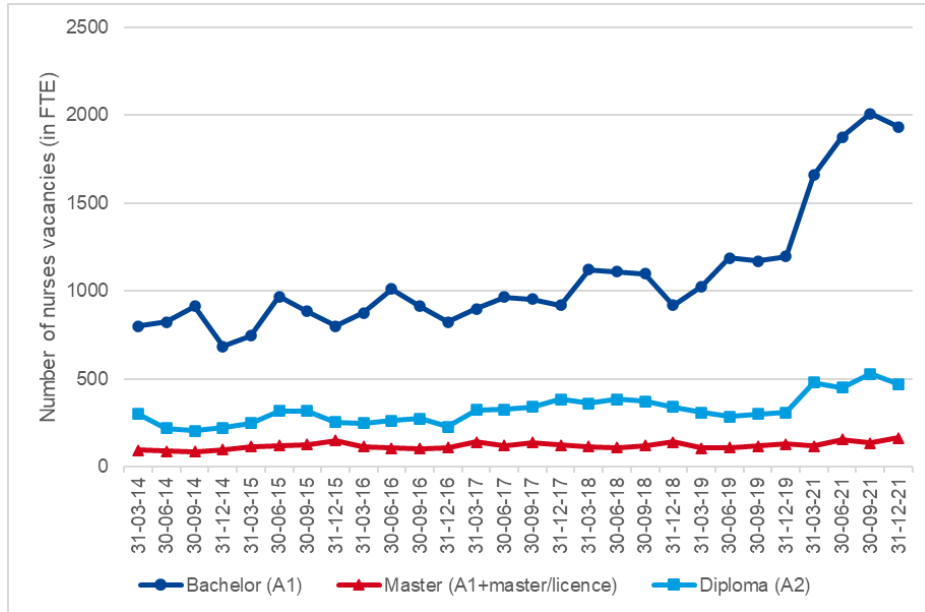
The most important increase was observed in Wallonia, with a peak in September 2021 (+100.3% compared to September 2019), followed by Flanders with a peak in September 2021 of +62.4% compared to September 2019. In Brussels, the peak was observed in December 2021 (+68.3% compared to December 2019).

The increase in the number of vacancies during the pandemic shows how difficult it is for hospitals to recruit and retain nurses, especially since the COVID-19 pandemic. The lack of more recent data does not permit to determine if (and when) this will return to pre-pandemic levels.

Table 1 – Number of nursing vacancies in hospitals, per diploma level, Belgium and per region, December 31, 2021

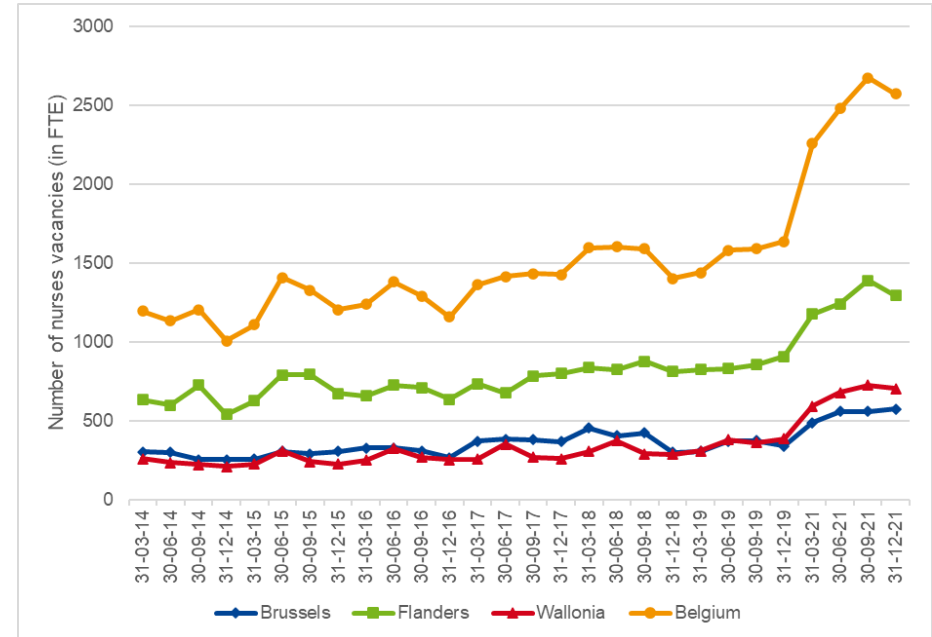
		N	%	FTE	%
Flanders	Bachelor (A1)	908.5	65.3%	836.96	64.7%
	Master (A1+master/licence)	83	6.0%	79.33	6.1%
	Diploma (A2)	399.5	28.7%	377.3	29.2%
	Total	1391	100.0%	1293.59	100.0%
Wallonia*	Bachelor (A1)	635	83.9%	588.78	83.6%
	Master (A1+master/licence)	48	6.3%	43.25	6.1%
	Diploma (A2)	74	9.8%	72.57	10.3%
	Total	757	100.0%	704.6	100.0%
Brussels	Bachelor (A1)	525	89.4%	509.77	88.8%
	Master (A1+master/licence)	43	7.3%	43	7.5%
	Diploma (A2)	19	3.2%	21.12	3.7%
	Total	587	100.0%	573.89	100.0%
Belgium	Bachelor (A1)	2068.5	75.6%	1935.51	75.3%
	Master (A1+master/licence)	174	6.4%	165.58	6.4%
	Diploma (A2)	492.5	18.0%	470.99	18.3%
	Total	2735	100.0%	2572.08	100.0%

Figure 1 – Number of nurses vacancies in hospitals (in FTE), per diploma level, evolution 2014-2021 (2020 data not available)



Source: FPS Public Health; KCE calculations.

Figure 2 – Number of nursing vacancies in hospitals (in FTE), Belgium and per region, evolution 2014-2021 (2020 data not available)



Source: FPS Public Health; KCE calculations.

**Table 2 – Nurses vacancies in hospitals, impact of the COVID-19 pandemic, % increase 2019-2021, per trimester**

	March 2019- March 2021	June 2019 - June 2021	September 2019 - September 2021	December 2019 - December 2021
Flanders	+42.7%	+49.5%	+62.4%	+42.4%
Wallonia	+91.5%	+77.8%	+100.3%	+81.8%
Brussels	+59.1%	+51.2%	+50.3%	+68.3%
Belgium	+56.7%	+56.7%	+68.2%	+57.1%

Key points

- The yearly survey of 'hospital statistics' contains a question about the number of unfilled vacancies. In 2021, 2 572 nurses vacancies in FTE were reported in the Belgian hospitals.
- Most nurse vacancies in hospitals were reported in Flanders (1 293.6 FTE), followed by Wallonia (704.6 FTE) and Brussels (573.9 FTE) and concerned especially nurses with bachelor's degree (A1).
- The number of nurses vacancies in hospitals, which reflect the capacity of hospitals to recruit and to retain nurses, was impacted by the COVID-19 pandemic. The highest disruption was observed in Wallonia in September 2021 (+100.3% compared to September 2019), followed by Flanders (+62.4% compared to September 2019). In Brussels, the peak was observed in December 2021 (+68.3% compared to December 2019).
- It is nevertheless not possible to determine the exact magnitude of the disruption due to the lack of data for 2020. The peaks observed in 2021 may be lower than what's happened in 2020.
- It is also not yet possible to determine the duration of the disruption or the magnitude of the rebound (if any) as more recent data is not yet available.

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. WHO and partners call for urgent investment in nurses [Web page]. Geneva: World Health Organization;2020 [cited July 2023]. Available from: <https://www.who.int/news/item/07-04-2020-who-and-partners-call-for-urgent-investment-in-nurses>
3. FPS Public Health. For a healthy Belgium: Key Data in Healthcare, Healthcare Professionals, Introduction [Web page]. Brussels: FPS Public Health;2023 [cited March 2023]. Available from: <https://www.healthybelgium.be/en/key-data-in-healthcare/healthcare-professionals/introduction-en>
4. FPS Public Health. Annual hospital statistics (STATHOSP) [Web page]. Brussels: Federal Public Service Health - Food Chain Safety and Environment;2023 [cited July 2023]. Available from: <https://www.health.belgium.be/fr/sante/organisation-des-soins-de-sante/hopitaux/systemes-denregistrement/stathosp>

