EFN Policy Brief
Safe Staffing Levels
Nursing Action - a WHO-led project funded by the European Commission

European Federation of Nurses Associations

Highlights

What is the issue?

- There is an urgent need for better frameworks that ensure safe staffing ratios, which are necessary for protecting patient care and supporting nursing professionals.
- The momentum for safe staffing policies has been growing in the EU, Europe and globally.
- The current situation in most countries reflects staffing requirements that remain predominantly at minimum levels rather than safe staffing levels.
- Europe still has substantial room for progress on comprehensive legislation, supportive methodologies, and accountability guidance to enable safe nurse staffing ratios.
- The European legislation on nurse staffing levels is often limited in scope and enforceability (2023 EFN Data).
- Lack of established national methods to systematically determine appropriate nurse staffing levels and skill mix (2023 EFN Data).

Findings

- Better nurse staffing is associated with better patient outcomes, increased patient satisfaction, and decreased hospital-acquired conditions, length of patient stay, risk of patient readmission, and patient mortality.
- The main barriers are political reluctance, decentralised systems, nursing shortages, and cost concerns.
- The countries lacking legislation also indicated they lack established national methods to determine appropriate nurse staffing levels and skill mix systematically.
- Standards are not one-size-fits-all but tailored to the units and nurses' workload.
- Staffing ratios could improve hospital recruitment, retention, and patient outcomes.

Key Messages

- Define and enforce safe staffing levels to sustain high-quality patient care standards across the EU and Europe.
- The emphasis on safe staffing frameworks, regulations, and professional judgment in addressing recruitment and retention challenges is vital.
- Safe nurse staffing is an incentive to attract nurses, aid recruitment and retention, and reduce reliance on unethical recruitment practices.
- Establishing effective and sustainable strategies to develop safe staffing levels in the EU and Europe is a priority.
- Legislate safe nurse staffing levels to ensure the safety of patients and nurses.
- Safe Staffing Levels, with a focus on developing EU legislation, must be included as a priority action in the EMPL-SANT Own-Initiative Report on the Health Workforce Shortages.
- The EU and Europe will need to reach a tipping point where safe staffing levels are the enforced standard rather than the exception.

Content

1. Introduction

In a continuously changing world, adequate policy responses are necessary, especially when it comes to leveraging the healthcare systems in the EU and Europe. To ensure a resilient healthcare ecosystem, we require nurses with high levels of education, as well as safe staffing levels and safe working conditions.

The mounting research evidence shows that increased nurse staffing with an appropriate skill mix positively affects patient outcomes and mortality rates and improves job satisfaction and nurse retention (Dall'Ora et al., 2022; Griffiths et al., 2019; Aiken et al., 2014; Ball & Catton, 2011; Aiken et al., 2002). Substantial research, including systematic reviews of extensive observational studies, demonstrates associations between nurse staffing levels and metrics like patient mortality, infections, falls, pressure ulcers, and adverse events (Aiken L., 2014, 2021). The evidence largely points to lower registered nurse staffing levels leading to worse patient outcomes (RCN, 2023). Nurse staffing levels are important because they can directly impact the quality of patient care and safety (Zaranko et al., 2023).

Importantly, when nurses are overloaded, they may be more likely to make mistakes and miss or delay care, leading to adverse patient outcomes (Phelan and McCarthy, 2016; Ball et al., 2014). In addition, they are also more prone to burnout, which has become increasingly widespread in the context of the existing nursing shortages (Dall'Ora et al., 2020; WHO, 2022). Safe nurse staffing level is, therefore, an incentive to attract nurses, aid recruitment and retention (Queensland Nurses and Midwives' Union, 2018; Griffiths et al., 2023), and reduce the reliance on unethical recruitment practices, such as inappropriate recruitment of overseas nurses, contrary to the principles outlined in the WHO Code on Ethical Recruitment of Health Personnel.

Consequently, the momentum for legislated nurse staffing ratios is growing, with the USA and Australia already implementing minimum ratios and reporting positive impacts on safe and quality care. However, the EU and Europe still have substantial room for progress on comprehensive legislation, supportive methodologies, and accountability guidance to enable safe nurse staffing ratios. Although there is enough evidence that safe staffing levels positively impact outcomes (RCN, 2023), the main barriers are political reluctance, decentralised systems, nursing shortages, and cost concerns. Although evidence-based methods are available to determine the most appropriate staffing levels and skill mix, the exploitation of safe staffing levels in the EU is still low. There is no universally accepted standard for safe nurse staffing levels, with optimal levels likely depending on factors like patient acuity and care environment. However, the momentum for safe staffing policies in the EU is growing.

In Europe, the EFN examined in 2023, post the COVID-19 pandemic, the nurse-patient ratio legislation landscape across the 35 countries represented through the EFN (2023), revealing a lack of progress regarding comprehensive, mandatory nurse-patient ratio laws. Out of the 35 countries, 11 indicated some existing legislation or frameworks related to nursing ratios and staffing levels. These 11 countries are **Austria, Belgium, Cyprus, Czech Republic, Estonia, Finland, Germany, Portugal, Romania, Slovakia,** and **Wales**. Though these countries have taken some steps toward legislating nurse staffing levels, a deeper analysis shows that the existing legislation is often limited in scope or enforceability (EFN, 2023).

Furthermore, the countries lacking legislation also indicated they lack established national methods to determine appropriate nurse staffing levels and skill mix systematically. Of those countries that indicated having some method of determining nursing staffing levels and skill mix, only **Austria, Belgium, Cyprus, Finland, Germany, Ireland, Portugal, Serbia,** and **Slovakia** stated that their staffing level calculation methods, whether ratios or minimum numbers, are approved by their governments.

Although progress still needs to be made in the EU and Europe, research shows that better nurse staffing is associated with better patient outcomes, increased patient satisfaction, decreased hospital-acquired conditions, decreased length of patient stay, decreased chances for patient readmission, and decreased patient mortality. It is argued that staffing ratios could improve hospital recruitment, retention, and patient outcomes (Aiken, 2023).

2. Literature Review

2.1 Introduction

The first step in the EFN's work on developing this Policy Brief involved a desk (literature review) and field research, which included data collected through a survey with both closed and open-ended questions from EFN members. This mapping exercise focused on the existence of national legislation and methodologies used for calculating safe staffing levels, the reasons for not having established safe staffing levels, and the presence or absence of agreements regarding nurses' accountability if safe staffing levels are not met. This led to an overview of the resources and materials currently available.

The mapping exercise helped identify safe staffing practices. The EFN then developed the Policy Brief on the different research questions and best practices for safe staffing. The EFN members supported this development through the EFN Workforce Committee members, the EFN working group on Safe Staffing Levels, and the EFN General Assembly, who provided feedback and expertise to this deliverable.

2.2 Methods

The desk research included searching for research articles about nurses, nurse staffing, skill mix and healthcare outcomes. It was performed using a search string that was reviewed and agreed upon by two members of the research team. The search string used can be found in Table 1. Databases used were Medline and Scopus to include a wide variety of medical peer-reviewed journals. The inclusion criteria for the initial search were 1) being a review and 2) region Europe, United States of America, Canada, United Kingdom, Australia, Japan, China, and South Korea. Articles older than 2021 and not written in English or Dutch were excluded from the scope of the desk research. The initial search retrieved 247 results. After screening on title, abstract and full-text, 47 studies were withheld. After removing duplicates and non-review articles, 16 reviews were withheld. Only nine papers mentioned staffing legislation, staffing ratios or skill mix ratios. Grey literature, older reviews, and missing national policies were identified through snowball sampling from the reference lists of the included reviews or by consulting official governmental sites.

Table 1 - Search string

	Search string
MEDLINE	("safe staffing levels" OR "nurse-to-patient ratios" OR "nursing workload" OR "safe staffing legislation" OR "nurse staffing standards" OR "optimal nurse staffing levels" OR "nurse staffing models" OR "nurse staffing levels" OR "skill mix" OR "nursing skill mix") AND ("patient outcomes" OR "healthcare quality" OR "patient safety") AND ("nurses" OR "registered nurse" OR "nursing").

SCOPUS	(KEY ("safe staffing levels" OR "nurse-to-patient ratios" OR "nursing workload" OR "safe staffing legislation" OR "nurse staffing standards" OR "optimal nurse staffing levels" OR "nurse staffing models" OR "nurse staffing levels" OR "skill mix" OR "nursing skill mix") AND ALL ("patient care" OR "patient-reported outcome measures" OR "patient-reported experience measures" OR "patient outcomes" OR "healthcare quality" OR "patient safety") AND ALL ("nurses" OR "registered nurse" OR "nurse practitioner" OR "nurse supervisor" OR "nursing") ALL (.)) AND PUBYEAR > 2020 AND PUB YEAR < 2026

2.3 Results

There is few research done on evidence-based approaches and tools to set safe-staffing levels for nurses. One of the main approaches is the volume-based approach where there is a minimum staffing level per patient. These are mainly mandated by national or regional laws and regulations.

Nurse-staffing ratios

We now provide a summarised overview of the findings from the articles included in the literature review. Overall, research on nurse staffing levels at a global scale highlights significant variations. Eleven systematic reviews have reported nurse-to-patient ratios as a key measure of staffing adequacy. A commonly observed standard in Intensive Care Units (ICUs) is a nurse-to-patient ratio of 1:2, ensuring close monitoring of critically ill patients (Adynski et al., 2022, Dall'Ora et al., 2022, Falk et al., 2022). In contrast, general ward staffing ratios vary more widely, typically ranging from 1:3 during day shifts to as high as 1:18 during night shifts (Adynski et al., 2022, Ball et al., 2021, Dall'Ora et al., 2022, Drennan et al., 2024, Kwon et al., 2024, McHugh et al., 2021, Morioka et al., 2022, Olley et al., 2019, Twigg et al., 2019, Shin et al., 2020, Van den Heede et al., 2020, Ying et al. 2020). Despite these observed patterns, no universally established international standard for nurse staffing levels exists. However, the International Council of Nurses (ICN) has emphasised the need for governments to take responsibility for ensuring safe staffing by enacting legislation that guarantees an adequate supply of healthcare workers (ICN, 2023). For long-term care facilities, there are no real international standards regarding staffing levels and skill mix; rather, these are determined by each national or regional government.

From a European perspective, literature reviews indicate considerable variation in nurse staffing levels across countries. Several systematic reviews report that nurse-to-patient ratios are a key determinant of care quality and patient safety. In ICUs, a commonly observed staffing standard is 1:2, while in general wards, nurse-to-patient ratios range from approximately 1:4 during day shifts to 1:12 or higher during night shifts (Griffiths et al., 2016; Aiken et al., 2012, Shin et al. 2020). However, these ratios vary significantly due to differences in national healthcare policies, workforce availability, and financial constraints. Europe does not have a unified regulatory framework for minimum nurse staffing levels. Nevertheless, organisations like the European Federation of Nurses Associations (EFN) advocate for evidence-based staffing policies to ensure patient safety and workforce sustainability (EFN, 2022).

From a national perspective, there is a wide variety of nurse staffing standards and policies. There are two main nurse staffing policies, with the first being fixed nurse/patient ratios and the second being a needs-based approach at the individual hospital level by hospital committees (Bartmess et al., 2021).

South Korea based its nurse-to-patient ratios on the level of care provided by the hospitals, ranging from 1:5-7 in tertiary hospitals to 1:10-16 in other hospitals, with a policy of increasing reimbursement fees when hospitals followed the guidelines. Yet the reported ratios still sometimes exceed the maximum limit of the National Health Insurance Service, with smaller hospitals having a bigger discrepancy (Kwon et al., 2024, Shin et al., 2020). The Korean Elderly Welfare Act 22 requires nursing homes to have one nurse for every 25 residents; this can be an RN or a nurse aide. However, they use more direct care workers, such as personal care assistants, because residents with health or medical care needs are transferred to clinics or hospitals. The staffing requirements for the direct care workers are a direct care worker-to-resident ratio of 1:2.5 and one social worker per 100 residents (Bae et al., 2020).

In **Australia,** the states determine nurse staffing levels, with Queensland having a minimum nurse/patient ratio of 1:4 on day shifts and no lower than 1:7 on night shifts. This was introduced in the Nursing and Midwifery Workload Management Standard. Victoria, Australia, has legislated minimum nurse-patient ratios in public acute hospitals since 2001 through the Enterprise Agreement (QNMU, 2018). In Victoria, the Safe Patient Care Bill in 2015 set the minimum for night shifts between 1:3 and 1:8. In Tasmania, wards are categorised based on the complexity of patients, with ratios ranging from 1:2 to 4. At the same time, other states are in negotiations regarding introducing patient-to-nurse ratios (Olley et al., 2018, McHugh et al., 2021, Shin et al., 2020, Tait et al., 2024). In 2023, the government introduced the 24/7 RN responsibility, which ensured that aged care providers had at least one RN on site and duty 24 hours a day. An average of 215 minutes of care is required, including 44 RN minutes, from 1st October 2024. The Australian Nursing & Midwifery Federation is calling for a new standard that takes the complex health needs of elderly residents into account. This standard should include a skill-mix of RN, enrolled nurses and care assistants with a respective example of 30% RN, 20% enrolled nurses and 50% care assistants (ANMF., 2023).

For **Germany,** there is a federal regulation of a 1:10 nurse-to-patient ratio for day shifts and a 1:20 ratio for night shifts. For the ICU, there is a minimum staffing level of 1:2,5 for day shifts and a 1:3,5 ratio for night shifts. There is also regional legislation; for example, in Nordrhein-Westfalen, the ICU staffing ratio is 1:2 (Shin et al., 2020). Long-term care in Germany is divided into two types: community care and residential aged care. The care grades of the residents determine the number of minutes of assistance and care. This varies from state to state due to the absence of national staffing standards. In the highest grade of care, the nurse-to-patient ratios range from 1:1.76 to 1:2.60 and in the lowest grade, from 1:2,87 to 1:13,40, with averages of 1:1,99 and 1:6,90, respectively. Most states require 50% of the care staff to be qualified nurses (Rothgang & Wagner., 2019, Eagar et al., 2019).

In **Japan,** a minimum ratio of full-time equivalent (FTE) nurses was regulated in the Medical Care Act, with 1:3 for inpatient and 1:30 for outpatient care. However, this is a minimum, so hospitals employ more nurses to keep the levels in the fee schedule. If they don't meet the requirements, less money is given by the National Health Insurance system. The system was changed in 2006 to a patient-to-nurse ratio per shift instead of a total number of patients and nurses. There are four nurse staffing levels in general wards, starting at 7:1 to 15:1, depending on the type of ward. This is calculated for a day, so in reality, there are more nurses on day shifts and fewer on night shifts (Morioka et al., 2022). For nursing homes, there is a mandated staff ratio of a minimum of 1:3, including nursing and other care workers (Annear et al., 2016).

In the **United States**, each state is mandated to enact their own staffing laws. Four states (California, New York, Oregon and Massachusetts) have a mandatory nurse-to-patient ratio set by unit type in each hospital. In August 2023, Oregon Gov. Tina Kotek (D) signed into law a comprehensive "safe staffing" bill that mandated minimum nurse-to-patient staffing requirements across most hospitals for nearly a dozen types of hospital units in the state. The law also charged the Oregon Health Authority with investigating complaints about hospitals that failed to enforce these requirements. For New York and

Massachusetts, the ratio is only set for the ICU. Five states (Illinois, New Jersey, Rhode Island, New York and Vermont) require public reporting of staffing plans to promote transparency to their residents. This process makes data about hospital staffing comparable and readily available to consumers, nurses, and hospital administrators. Public reporting is envisioned to improve care delivery as providers identify underperforming areas, increase consumer trust in the health system, and support healthcare decision-making (Dunt et al., 2018). The last type of legislation is in place in nine states (Connecticut, Illinois, Nevada, Colorado, New York, Oregon, Ohio, Texas and Washington). In these states, hospitals are required to have nurse staffing committees comprising of nurses, nurse managers and executives. These can formulate policies such as acuity-based staffing or fixed ratios (Bartness et al., 2021, Robers, A., 2023). So, as of 2019, 14 US States have laws or regulations representing one of the following approaches: (a) mandated nurse-to-patient ratios for all hospital units; (b) mandated staffing committees; and/or (c) mandated public reporting by hospitals of nurse staffing levels. These laws and regulations were passed by State senators and representatives to protect patients and ensure safe care.

Furthermore, in September 2023, the U.S. Department of Health and Human Services (HHS), through the Centres for Medicare & Medicaid Services (CMS), issued a proposed rule that seeks to establish comprehensive staffing requirements for nursing homes in the US, including, for the first time, national minimum nurse staffing standards, to ensure access to safe, high-quality care for the over 1.2 million residents living in nursing homes. This proposed rule builds on the President's historic Action Plan for Nursing Home Reform launched in the 2022 State of the Union. Nursing homes would need to provide residents with a minimum of 0.55 hours of care from a registered nurse per resident per day and 2.45 hours of care from a nurse aide per resident per day, exceeding existing standards in nearly all states. CMS estimates that approximately three quarters (75%) of nursing homes would have to strengthen staffing in their facilities. There is an additional 0.48 hours of care per resident per day that can be provided by a combination of RNs, LPNs, nursing assistants or licensed vocational nurses. This final rule was issued on 22nd April 2024 (Abdulai, 2024).

The **United Kingdom** also divides the nurse staffing legislation between its regions. Wales enacted the Nurse Staffing Levels Act 2016 to regulate the nurse staffing levels. The guideline requires the designated persons to keep into account the average nurse-to-patient ratios using evidence-based workforce planning tools. In 2024, the Health and Care Staffing Act 2019 came into force in 2024 in Scotland. The Act places a duty on the NHS and care providers to provide adequate and skilled staff and seek clinical advice when making staffing decisions. (Royal College of Nursing, 2024) Guidance in England uses evidence-informed tools endorsed by NICE, such as the Safer Nursing Care Tool. The NICE guidelines state that nurses are required to care for fewer than eight patients. So, there is no fixed ratio but the usage of a tool to inform the staffing levels (Van den Heede et al., 2020). The evidence for the NICE guidelines was reinforced by a study by Ball and Griffiths (2021). There are no specified minimum levels of staffing for nursing homes or residential care homes in England, but the Care Quality Commission regulates and monitors residential aged care (Eagar et al., 2019). In Northern Ireland, there is a staffing standard and a skill-mix standard for nursing homes. The staffing levels have to be 'appropriate' for the level and amount of care, whilst there must be an average of at least 35% RNs over 24 hours. For residential care homes, the number and ratio of staff to residents is calculated by the regulatory body, the Department of Health Social Services and Public Safety (Eagar et al., 2019).

To date, **Canada** has not imposed a minimum staffing legislation. In 2024, Bill 192, *Patient-to-Nurse Ratios for Hospitals Act,* on patient-to-nurse ratios in hospitals was introduced, but it was not passed in June 2024. This bill would have introduced ratios ranging from 1:1 for critical care patients on ventilators to 7:1 ratios for rehabilitation care on night shifts. The Canadian Nurses Association and the Canadian Federation of Nurses Unions created an evidence-based safe nurse staffing toolkit to promote safe staffing in 2015. This toolkit was designed to help care nurses and nurse managers make staffing

decisions in all healthcare settings (Boas A. & Silas L., 2015). Nursing homes have some legislation, but it is regulated at the provincial level. Long-term facilities are required to have at least two staff members on site 24 hours a day, one of whom must be an RN. Residents are expected to receive an average of 114 minutes of care per day, 22% of which is provided by an RN. The Alberta Health Services funding allows for more minutes of care, a total of 216 minutes on average (Auditor General of Alberta, 2014). It allows for an additional 0.40 FTE allied health and recreational care personnel. Ontario has committed to increasing the average care per resident day to four hours in 2017, but the only mandated requirement to date is to have one RN available 24 hours a day (Registered Nurses' Association of Ontario, 2018, Eagar et al., 2019). British Columbia does not have a set staffing requirement in long-term care. They require facilities to have adequate levels of staffing according to the care needs. In addition, the Ministry of Health introduced a target of 202 minutes of direct care per resident day in 2009. This includes 3 hours of nursing care and 0.36 hours of allied health care (British Columbia Ministry of Health, 2017).

Ireland does not have fixed ratios imposed but supports the use of staffing frameworks to determine staffing levels, such as nursing hours per patient day. They use a standardised patient acuity system developed in Australia. This system takes into account patient acuity, ward type, and nursing hours per patient day. It also takes the skill mix into account, with a maximum proportion of 20% of healthcare assistants (Van den Heede et al., 2020). The Framework for Safe Nurse Staffing and Skill Mix: phase 3 is currently under development with an application of the framework to long-term residential care settings, step-down and rehabilitation care settings (Department of Health, 2024).

Spain introduced a bill on nurse ratios in 2019 to have a maximum ratio of 1:6 and an exceptional ratio of 1:8. This has been due to an average ratio of 1:12.7 in 2014, with Spain having the highest ratios in Europe (Fernandez-Garcia, 2021, Aiken et al., 2014).

The Belgian Health Care Knowledge Centre (KCE) wrote a report on the staffing in Belgian acute hospitals in 2019. The national average lay at 9.4 patients per nurse. Two elements in **Belgium** are important to guide staffing levels. Firstly, there is the financial base budget based on responsible beds. This financial budget does not cover the full cost of one FTE nurse. This results in a ratio of 11,3-14 patients per nurse. A second element is the accreditation standards for hospitals. The bare minimum is 1 nurse to 30 patients, but there are more specific norms per type of ward based on FTE/bed, such as geriatrics, medical and surgical wards. For specialised wards, such as the ICU, the minimum is set at 1:3, while in a stroke unit, there has to be one registered nurse and one extra nurse per six patients (Van den Heede et al., 2020). In nursing homes, minimum staffing levels vary from region to region, as the authority is delegated to the regional governments themselves. In Belgium, there is a minimum of five FTE nurses per 30 residents. In Flanders and Wallonia, at least one nurse must be on duty 24 hours a day, whereas this is not required in the Brussels-Capital Region. One FTE/30 resident can be replaced by another qualified profile, such as a physiotherapist, as long as the continuity of care is guaranteed. Staffing levels for caring staff, such as care assistants, vary from 5 FTE/30 residents to 6.5 FTE/30 residents, depending on the level of care required. In practice, this translates into a patient-to-nurse ratio of 6.9 for morning shifts and 40 to 1 for night shifts (Dejonghe et al., 2022).

China has no active nurse staffing **legislation**. A review reported patient-to-nurse ratios of 6.89 to 15 patients per nurse in general wards. In the ICU, the ratio was 2.5-3 nurses to one patient, which is set by the government (Ying et al., 2020). No legislation on nursing homes was found, which may be due to the development of formal nursing homes in China (Song et al., 2014).

In **Finland,** there is a minimum staffing level for nursing homes. It is set at 0.65 employees per client, and it is reached by almost all nursing homes. However, they will increase the minimum to 0.7

employees per client in 2028 to enable handling a higher care intensity by the end of the transition period (Huhta J. & Mäntyranta, T., 2023).

Other countries do not currently have staffing legislation in place. The RN4CAST study of Aiken et al. (2012) shows the patient-to-nurse ratios from 12 countries in Europe. These ratios ranged from 3.7 in Norway to 10.20 in Spain, with a European average of 7.01. Yet, in 2014, a new study from nine countries showed an average ratio of 8.3, ranging from 3.4 to 17.9 (Aiken et al., 2014).

Other safe-staffing approaches and tools

Edwardson and Giovannetti (1994) and Hurst et al. (2002) described four additional needs-based approaches to determining safe staffing levels. These are the prototype/patient classification, indicator, regression and timed-task approaches.

Prototype/Patient Classification

Using pre-existing categorisations e.g. based on diagnosis or bespoke categorisations based on acuity or dependency, the prototype or patient classification systems group patients accordingly to these categories. This approach is widely used in England by determining staffing requirements with the earlier mentioned Safer Nursing Care Tool (The Shelford Group, 2014). The tool allocates the patients into one of five categories with a certain weight or multiplier that indicates required staffing levels (Griffiths et al., 2020). Another example is the Workload Indicator of Staffing Need (WISN). This tool uses activity analysis and measures of utilisation and workload to determine the staffing requirements. Besides these factors, the workload pressure is also evaluated using this method. WISN takes into account the differences in services provided and in the complexity of care. Moreover, it provides the user with two types of results: differences between actual and calculated number of healthcare workers and the ratio of actual to required number of staff as a measure of workload pressure. One of the strengths of WISN is the differentiation between different types of healthcare professionals as to not only being focused on RN's (WHO, 2016, 2023 & Thum et al., 2024).

Indicator-based approaches

Where the prototype/patient classification systems uses diagnoses or bespoke categorisations based on acuity or dependency, the indicator-based approaches uses ratings across a number of factors related to the time required for patient care. Examples are assessments of the condition, states, specific activities or needs. The Finish RAFAELA approach uses the Oulu Patient Classification (OPC) as one of its components to determine nursing intensity. The OPC instrument is used to measure daily nursing intensity inpatient settings which consists of six components: Planning and coordination of nursing care; breathing, blood circulation and symptoms of disease; nutrition and medication; personal hygiene and secretion; activity, sleep and rest; teaching, guidance in care and follow-up care, and emotional support (Fagerström and Rainio, 1999, Fagerström et al., 2018).

Regression-based approaches

Regression-based approaches model the relationship between patient-, ward- and hospital-related variables, and the establishment of adequately-staffed wards. The RAFAELA system is an example of the approach. It was developed in Finland to systematically measure nursing intensity and the allocation of the nursing staff. This tool is based on two perspectives, the nursing perspective which consists of the holistic view of people, the importance of human needs and the complexity of the nursing; and the human resource management perspective, consisting of a belief of staff competence, importance of strategic and engaged leadership, and the importance of a top-down approach. It stresses how crucial the nurses' perspectives are to assess the need of nursing resources. It consists of several components: instruments to measure nursing intensity such as the Oulu Patient Classification (OPC); actual daily

staff resources, determination of the optimal nursing intensity level. (Fagerström et al., 2018). Whilst the RAFAELA instrument was designed for primary and hospital care, it is also validated to assist in nurse staffing for nursing homes and home care (Flo et al., 2018).

(Timed)-task approaches

The timed-task approaches consist of detailed care plans to calculate workforce requirements . A second workload-based staffing tool is the GRASP-methodology. Using the GRASP workload measurement system (WMS), organisations can measure, collect, and analyse nursing workload. Nursing workload is defined as the direct and indirect patient care, but also as professional development activities. This workload is then calculated for each new patient and used to determine the required nurse staffing (Griffiths et al., 2020, Stilos et al., 2020)

Three remaining approaches to staffing are presented by Griffiths et al. (2020) and Van den Heede et al. (2020). The budget-based staffing approach is a method dependent on the financial constraints of a hospital. It's often a predetermined budget based on historical data. An example is the Budget of Financial Means in Belgium (Van den Heede et al., 2020). The second approach, professional judgement, uses expert opinions to decide on the number of staff employed. The benchmarking approach also used expert judgement to identify suitable comparators between similar units to compare staffing levels and thus establishing requirements. Yet these models don't involve formal assessment of patient requirements for nursing care and are often based on historical data (Griffiths et al., 2020).

In these ever-digitalising world, healthcare organisations could also consider applying machine learning models to facilitate calculating optimal staffing levels (Ahmed et al., 2020). Othman et al. (2025) described in their review of artificial intelligence for determining staffing levels four key categories: a supply side (staff skill mix, and the cultural and nursing competences) and the demand side (language barriers and patient acuity level). Whilst Schäfer et al. (2023) has described the effects on outcomes and patient satisfaction, there are still some challenges to implementing such tools. Professionals have to familiarise themselves with machine learning, training of the machine learning tools is important, and reliance on digital infrastructure can pose problems. Therefore, proactive measures need to be taken to mitigate these challenges (Othman et al., 2025).

Team-based Approaches

While not mentioned by Edwardson and Giovannetti (1994) and Hurst et al. (2002), another staffing approach which appears in the existing literature is the team-based approach, which is in the context of skill-mix and task-sharing, not task-shifting, an important approach within the development of Safe Staffing Levels. Team-based approaches consist of models in which patients are distributed according to the members of a nursing team's education, training and scope of practice. These are nurse-led teams, that may be led by registered nurse (RNs) and an Advanced Practice Nurse (APN), which share nursing care services and collaborate to provide direct patient care. In such team settings, the RN or the APN is responsible for organising care delivery, sharing tasks appropriately, and ensuring that each team member contributes effectively based on their competencies to the nursing care process outcomes. These models emphasise collaboration and open communication, while supporting continuity of care, as team members work closely together and share regular updates about patients' conditions, enhancing the quality and consistency of care (Beckett et al., 2021; Jomaa et al., 2022). However, such team-based models remain understudied, unfortunately. Although the limited literature highlights possible limitations with these team-based approaches, the EFN Workforce Matrix 3+1 is a good example of the team based approach (EFN, 2017).

The EU Nursing Workforce Matrix 3+1, composed of three categories of nursing care, general care nurse, specialist nurse and advanced nurse practitioner, recognise the important role of healthcare

assistants (HCAs) and the leading role of nurses in their supervision in the development of HCAs, supporting future scenarios of workforce team configurations which keep on delivering high quality and safe care to those who need care.

The first category "General Care Nurse or Registered Nurse" is legally set by EU law, Directive 2005/36/EC, chapter 3 of the Acquis Communautaire, modernised by Directive 2013/55/EU. The second category "Specialist Nurse" comply to different specialities and length of education across the EU Member States, but the common trend is that the specialist education starts after achieving the qualifications of as General Care Nurse, through postgraduate studies. The third category "Advanced Nurse Practitioner is a registered nurse who has acquired further knowledge and expertise, clinical judgment, skilled and self-initiated care, and research inquiry. This level is a highly-qualified workforce demanded for in clinical practice. Finally, to complete the matrix it is crucial the division between the role of nurses and the role of HCAs is clearly defined, mainly knowing that across the EU there are very different approaches to the role, regulation and employment of HCAs. However, an auxiliary assists the registered nurse (RN) directly in nursing care in institutional or community settings under the standards and the direct or indirect supervision of the general care nurse.

Nursing at an advanced practice level (APN) sits at the apex of the care continuum. Although there may be ambiguity in nomenclature across jurisdictions, advanced practice roles have demonstrated to promote high- quality clinical care, such as through intensive follow- up for patients with chronic illness, while simultaneously containing provider- related costs (Huws et al., 2008; Rosa et al., 2020). In addition to improving the quality of care— by avoiding unnecessary complications and hospitalisations and enhancing evidence- based practice— the development of advanced roles can lead to better recruitment and retention rates in nursing at a time when provider burnout is running high (Kroezen et al., 2015).

Intending to ensure systematic and evidence- based developments in APN, in 2017, the EFN members, National Nurses Associations from 35 EU and European Member States, collectively published the "EFN Workforce Matrix 3+1". This Workforce Matrix was developed by collecting qualitative and quantitative data on the three categories of nursing care: general care nurse, specialist nurse and advanced practice nurse, and recognising the important role of Healthcare Assistants (HCAs) and the leading role of nurses in their supervision in the development of HCAs.

In the EFN Workforce Matrix 3+1, the EFN Members adopted the ICN Definition of Advanced Practice Nursing: '*An advanced practice nurse is authorised for practice at an advanced level of nursing and healthcare delivery. The specific characteristics of the role are shaped by the context and/or country in which they are accredited to practice*.' Furthermore, the Workforce Matrix clearly outlines the core APN Competences, :

1. To have a minimum of master's degree with a protected role/title on ongoing continued professional development at advanced level.
2. Autonomous practice, built on nursing principles and clinical expertise. This includes building a partnership with people and enabling person-centred care. Have authority and responsibility for complex clinical decision making for individual patients, families, and communities.
3. Advanced nursing practice which includes excellent communications skills, with a holistic, ethical, equality view of each patient's health and care needs, coordination of care, critical thinking, self-reflection, decision making, planning, treating and evaluation which may include non-pharmaceutical and pharmaceutical prescribing. Also, skills relating to digital services and nursing informatics.
4. Clinical expertise and capability to autonomously assess, judge and having diagnostic reasoning skills to evaluate care and interventions.

5. Guide, counsel, educate and delegate to other health professionals about latest practice interventions, act as a mentor and role model, and actively engage in knowledge, transfer with patient communities.
6. Initiate and lead - policy making, development and facilitation, innovation, and strategic change.
7. Research development in nursing and quality improvement that includes initiating, leading, fostering implementation and dissemination of evidenced based practice.
8. Perform health promotion, prevention, and risk reduction.

Importantly, these competences should be acquired through post registration education at master level or equivalent. Advanced practice courses should be a minimum of a full master's degree (EQF level 7 in minimum) - This could be a Master of Science or equivalent and include leadership, research and educating as well as clinical competencies such assessment, diagnostic reasoning, non-pharmaceutical and pharmaceutical prescribing in health promotion (EFN, 2017).

Building on this, in 2021, the EFN Working Group on APN undertook a mapping exercise of Advanced Practice Nursing (APN) frameworks across Europe, collecting data from the 35 EFN Members countries, that was analysed and then published as a meta-analysis article. At that point, the survey showed that high levels of variation in the implementation across the 20 EFN member countries which reported having an established APN framework. This went from the definition adopted by the country to the level of training required to qualify and practice as an Advanced Practice Nurse. For instance, only 14 of the 20 countries with an established APN framework adhered to the definition provided by the International Council of Nurses, with the rest either adopting the EFN 'Workforce Matrix 3+1' definition, or developing their own definitions of APN (De Raeve et al., 2023)

Furthermore, 11 countries out of the 20 EFN members with an APN framework reported the existence of a law establishing minimum educational requirements to qualify as an advanced practice nurse. These requirements, however, varied significantly amongst countries. For instance, in some countries, the minimum requirement was a master's degree whereas in others the requirement is a postgraduate certificate or a diploma, which are both below a master's degree level. The same level of variation was observed for educational pre-requisites needed to begin APN education and as well as for number of ECTS credits required to progress from a general nursing degree to APN. Some countries reported that the level of education needed to qualify as a Nurse Practitioner, or a Clinical Nurse Specialist is consistent with advanced practice nursing level. Despite these identified differences, the survey was useful for identifying communalities and policy avenues for future efforts to standardise advanced nursing practice across the EU and Europe (De Raeve et al., 2023).

To map these communalities, regulatory frameworks and ongoing APN developments in the Member States, a new survey was conducted by the EFN APN Working Group in 2025. While the data is still being processed to be published in a new article, preliminary results show that out of the 26 respondents, 13 reported having APN established in their country. Furthermore, 8 more countries reported that APN is under development. Overall, the evidence shows that the EU policy momentum is growing, with the EFN Members actively lobbying their National Governments to formally recognise APNs in line with the EFN Workforce Matrix 3+1.

The skill-mix will be key to advance the team-based approaches and the development of Safe Staffing Levels in the EU and Europe.

The skill-mix of a healthcare team is important in providing adequate care to the patients. A recent review found some studies that showed improvements in some patient outcomes, such as patient satisfaction. It changes the role of a nurse to allow more time for educating colleagues and reviewing

their nursing tasks. Yet the results in other studies were more inconsistent (Cermak et al., 2023). Two older studies found an inverse association between increased skill mix and nurse-sensitive outcomes such as length of stay, ulcer, gastritis, mortality and infections (Twigg et al., 2019, Aiken et al., 2017). Both highlighted inconsistencies in studies, such as the heterogeneity in definitions and methods used to determine the effect of skill mix. They highlight the importance of future research to investigate the optimal levels of registered nurses in the skill mix and the addition of other profiles, such as licensed practical nurses (LPN) or nurse assistants (Twigg et al., 2019, Cermak et al., 2023).

Three countries were found to have a skill mix factor in their legislation on patient-to-nurse ratio in hospitals. In the **United States, California** allows the ratio to be met with a maximum of 50% LPNs (Van den Heede et al., 2020). A study by Li et al. (2025) analysed data from 2107 hospitals in the United States. The mean RN hours per patient day were 8.8 (2.8), with a mean skill mix of 77.3% RN. They suggest a significant reduction in length of stay and hospital costs when the RN skill mix is at least 80%, with nine RN hours per patient day. Furthermore, their research suggests an even more significant reduction when the skill mix is increased to 85% and 11 RN hours per patient day. In **Victoria, Australia**, the ratio has to be achieved with a minimum of 80% RNs and the remaining by entrusted nurses (EN). In **Queensland, Australia,** the ratio must be achieved by RN's and ENs only; no other staff are counted towards the ratio.

In **Ireland,** the ratio must be achieved by 80% RNs and a maximum of 20% healthcare assistants (Van den Heede et al., 2020). Brady et al. (2025) studied the effects of planned changes to staffing and skill mix in Ireland on the working environment, job satisfaction and intention to leave. The planned changes included a skill mix of 80% RNs and 20% healthcare assistants, staffing levels to match the complexity of care and number of beds, and finally, a change in the role of the clinical nurse manager or head nurse to a 100% supervisory role. For the working environment, three out of five subscales showed a significant improvement over time, with staffing and resource adequacy showing the largest increase. Job satisfaction increased from 53.1% reporting satisfied/very satisfied to 68.6%, and intention to leave decreased from 52.0% to 46.7%.

2.4 Limitations

The primary limitation of this desk research lies in the limited availability of recent, comprehensive studies on nurse staffing legislation and optimal skill mix proportions. This gap may stem from the fact that only a minority of countries have enacted formal legislation on nurse staffing, leading to a fragmented evidence base.

Additionally, existing research predominantly focuses on the impact of staffing levels on patient outcomes, rather than on defining or validating balanced, evidence-based staffing standards. This makes it difficult to draw conclusions about optimal staffing models or skill mix configurations. Moreover literature is mostly focused on hospital care settings.

Another significant limitation is the heterogeneity in definitions, methodologies, and outcome measures across studies, which complicates cross-country comparisons and synthesis of findings. For example, the approaches are inconsistently defined, and the roles included (e.g., RNs, LPNs, healthcare assistants) vary widely.

Language bias also presents a constraint. The literature search was conducted in English and Dutch, potentially excluding relevant legislation and research published in other languages.

2.5 Recommendations

Given the growing body of evidence demonstrating the positive impact of an appropriate skill mix and increased registered nurse (RN) staffing levels on outcomes such as mortality rates, job satisfaction,

and nurse retention, it is essential that policy-makers prioritise the establishment of safe nurse staffing standards. However, these standards must be context-sensitive. Relying solely on fixed nurse-to-patient ratios risks oversimplifying the complex and dynamic nature of healthcare delivery. Staffing needs vary significantly depending on patient acuity, ward type, care setting, and available support staff. Therefore, while ratios can serve as a useful baseline or safety net, they should be complemented by more flexible, evidence-informed tools that account for real-time workload and patient needs.

Future research should focus on identifying the optimal composition of nursing teams, not only considering RNs and licensed practical nurses (LPNs), but also incorporating advanced practice nurses (APNs) and healthcare assistants (HCAs). This broader approach would support the evolving role of nurses and ensure that care delivery remains both safe and efficient.

To facilitate international comparisons and evidence synthesis, there is a pressing need to standardise definitions and metrics related to staffing levels, skill mix, and patient acuity. Harmonised terminology and methodologies would enable more robust cross-country analyses and inform policy development. Additionally, future research efforts should be more inclusive by incorporating literature in multiple languages and engaging with countries where English is not the primary language. This would help to capture a more comprehensive and globally representative understanding of staffing practices and legislation.

Governments should take proactive steps to legislate and enforce evidence-based staffing requirements. These should include minimum nurse-to-patient ratios, skill mix guidelines, and mechanisms for accountability to ensure that safe staffing levels are consistently maintained. Such measures would help mitigate the effects of nurse shortages, reduce instances of missed care, and improve working conditions, ultimately making the nursing profession more attractive and sustainable.

Furthermore, healthcare systems should invest in digital infrastructure and explore the use of AI and predictive analytics to support real-time staffing decisions. While these technologies offer promising solutions, their implementation must be accompanied by adequate training and safeguards to address potential challenges. Finally, international collaboration should be encouraged through organisations such as EFN and WHO, which can facilitate the exchange of best practices and support the scaling of successful staffing models across different health systems.

2.6 Reflections

The literature review revealed significant global variations in nurse staffing approaches, ranging from mandated ratios to needs-based methodologies determined at the institutional level. While an increasing number of jurisdictions are implementing safe staffing frameworks, there remains no universal consensus on optimal nurse-to-patient ratios or skill mix compositions. This variation reflects the complexity of healthcare delivery across different contexts and the multiple factors that influence staffing requirements.

Several key themes emerge from the research. First, there is robust evidence linking higher registered nurse staffing levels to improved patient outcomes across various settings. This relationship appears consistent despite methodological differences in research approaches and variations in healthcare systems. Second, the concept of ‘safe’ staffing extends beyond simple numerical ratios to encompass skill mix considerations, with emerging evidence suggesting that the proportion of registered nurses within the total care team significantly impacts outcomes. Third, implementation challenges persist even in jurisdictions with established legislation, particularly when faced with workforce shortages and financial constraints.

The research also highlights important gaps in our understanding. While acute care settings are well-represented in the literature, evidence regarding safe staffing in community and long-term care settings remains limited despite the growing importance of these sectors. Additionally, most research focuses on traditional nursing roles, with limited exploration of how advanced practice roles might be optimally integrated into staffing models. Furthermore, the economic analyses of safe staffing implementations often fail to capture the full spectrum of benefits, including reduced complications, improved staff retention, and enhanced patient experience.

Moving forward, research priorities should include developing more sophisticated methods for determining staffing needs that account for patient acuity, care environment, nurse experience, and technological support. Greater attention to implementation science could help understand how evidence-based staffing models can be effectively translated into practice within different healthcare systems. Additionally, expanded research on the relationship between staffing models and nurse well-being, particularly in addressing burnout and turnover, could strengthen the case for safe staffing as a strategy for workforce sustainability.

Despite these research gaps, the existing evidence provides a compelling foundation for policy action. The consistency of findings across diverse healthcare systems suggests that certain core principles of safe staffing are universally applicable, even as specific implementations must be contextually adapted. Countries that have already implemented safe staffing legislation offer valuable lessons in both the potential benefits and implementation challenges that can inform developments elsewhere. While perfect evidence may never be attainable given the complexity of healthcare environments, the current state of knowledge strongly supports moving forward with safe staffing policies while continuing to refine approaches through ongoing research and evaluation. However, before we can move forward, we first need to debunk some myths that are still common despite the large body of evidence on the value of Safe Staffing Levels with mandated safe nurse-to-patient ratios.

First, several countries, in the absence of safety nurse-to-patient ratios, have been developing different patient acuity tools. These tools consider the patient's condition, the amount and complexity of required nursing interventions, whether the patient requires constant supervision, in addition to factors affecting the nurses workload, such as bureaucratic and administrative tasks, patients and family education, and nursing students' supervision and mentorship (Aiken, 2025). While useful in improving the distribution of workload among available nurses, **evidence shows that these tools are ineffective**, **unless combined with mandated nurse-to-patient ratios**.

Scotland offers a useful example. The 2019 Health and Care Staffing Scotland Act, which does not mandate nurse-to-patient ratios, places instead a legal duty on the NHS to ensure the availability of qualified staff in the right numbers for safe and effective care. This model is based on guiding principles, duties, and a common staffing methodology. **However, an evaluation of its implementation found no improvements in: the staffing levels, the nurses satisfaction and desire to stay in the profession, and in the quality of care. This is because nurses have found it too complicated and ineffective** (Aiken, 2025).

Another critique to ratios is that they are a "one size fits all" model. However, all the existing successful models do not mandate one staffing ratio for all the patients types and healthcare settings. In fact, in each case ratios vary by type of unit and health setting, recognising the need to identify the most appropriate levels of nursing care according to patients acuity and the nurses workload. As such, only in the presence of nurse-to-patient ratios, acuity tools can be a useful and supportive tool towards quality and safety of care (Aiken, 2025). Furthermore, although criticised as a being "too rigid", ratios have been successfully adjusted over time, allowing the necessary flexibility for effective implementation (Buchan, 2024).

It is important to emphasise that ratios do not prevent hospitals from hiring more nursing staff, acting instead as a safety net to ensure safety and quality. Furthermore, you cannot safely substitute Registered Nurses (RN) with lower qualified staff, as it does not save money, and it increases nurse burnout, dissatisfaction, turnover rates, and adverse patient outcomes (Aiken, 2025).

Finally, legislation on safe staffing levels which includes mandated ratios does not undermine the professional judgment and expertise of registered nurses. In fact, where implemented effectively, legislation has been co-created, and ratios have been identified thanks to the collective expertise of the registered nurses (Aiken, 2025).

3. Data Collection EFN Members' Best Practices

3.1 Introduction

The EFN has a long history of collecting data on key nursing topics through its membership. Facilitating the exchange of knowledge, experiences and developments among the EFN members is very much valued as a means to share experiences with colleagues from across the EU and Europe, learn from each other's ongoing developments at national level, and communicate this evidence with the European Health Policy Institutions aiming at upscaling these best practices throughout the EU and Europe.

As such, the second step in creating this policy brief involved conducting field research to gather qualitative data from EFN members. This was achieved through a survey that included both closed and open-ended questions, targeting all 36 EFN members, particularly focusing on the 20 countries that participated in the WHO Nursing Action.

We undertook a mapping exercise of safe staffing levels developments, focusing on the existence of national legislation and methodologies used to calculate safe staffing levels, reasons for not having established safe staffing levels, and the presence (or absence) of agreements for nurses' accountability if safe staffing levels are unmet. This led to an overview of the resources and materials available in all EU member states and beyond, as EFN covers 35 countries. Submitted information was subject to a standard process of thematic categorisation and narrative synthesis. Results are presented in this policy brief under key areas of political and policy relevance.

The EFN developed the Policy Brief in dialogue with all EFN members from 36 National Nurses Associations and specifically through the EFN Workforce Committee members, the EFN working group on Safe Staffing Levels, and a final discussion at the April 2025 Brussels EFN General Assembly. The mapping exercise helped in the identification of good practices related to safe staffing levels that can be emulated across the EU and Europe.

3.2 Method

To achieve a comprehensive understanding of the development of Safe Staffing Levels in the EU and Europe, the EFN office collected data from the EFN members through a questionnaire consisting of eight open-ended questions. Additionally, this policy brief builds on and expands on the results of a previous EFN TdT Report on Safe Staffing Levels (2023). The questionnaire ran between 25th November 2024 and 3rd February, when the EFN Executive Committee took place. At that moment, we still had 2 countries missing from the 35 countries covered by EFN membership.

The EFN Members were invited to provide information on the following:

- State of implementation of national safe staffing levels legislation;
- The presence or lack of an established method of determining nursing staffing level and skill mix;
- The type of tools available to help determine safe staffing levels;
- The role of the NNA in setting safe staffing levels at the national level;
- The presence or absence of training available for nurses to help them implement safe staffing levels;
- Established processes for reporting when Safe Staffing Levels are not met;
- The existence of any established agreement that makes the healthcare facilities accountable for cases where Safe Staffing Levels are not met.

The questionnaire consisted of 8 questions, drafted by EFN and commented on by the WHO Copenhagen office. The questions are:

1. Do you have a legislation in your country in relation to Safe Staffing Levels?
   If Yes, please attach it (translated in English, please) and explain briefly how its measured.
   If No, state the reasons for not having established Nursing Safe Staffing Levels in your country.
2. Do you have an established method of determining nursing staffing level and skill mix in your country?
   If yes, which of the following 8 models does it follow? Benchmarking; 2. Volume-Based; 3. Patient/Acuity; 4. Budget Based; 5. Team Based; 6. Professional Judgement; 7. Multi-Factorial Indicator; 8. Timed-Task.
   If yes, is this a government approved method? Provide details. In case the available method is not government approved, can you provide details?
3. Is your NNA aware of any specific tools/resources to help determine safe staffing levels? This may be at national/ regional/ local level.
   If Yes, please attach any relevant resources (translated in English, please) and explain briefly the tool and how they are used. As you are already using guidance or tools, what could be improved?
   If not, what kind of tools/ resources do you believe would be most useful to your NNA in the development of Safe Staffing Levels?
4. How is your NNA involved in developing and setting Safe Staffing Levels at the national level?
5. Are you aware of any kind of training that is provided to nurses, specifically those responsible for Safe Staffing, to support them with this task? This could include training on how to use a specific tool/ resource, or generally to ensure they understand the legislation and evidence on Safe Staffing.
6. Is there an established process for reporting when Safe Staffing Levels are not met? This can be at national/ regional/ local level.
   If yes, does the reporting process supports any concrete action that enables Safe Staffing Levels to be met? (Please specify the response)
7. Do you have established an agreement for nurses not being accountable in cases that Safe Staffing Levels are not met?
   If Yes, please attach it (translated in English please)
8. Are you aware of any established agreement that makes the healthcare facilities accountable for cases where Safe Staffing Levels are not met?
   If Yes, please attach it (translated in English please)

While this policy brief was developed in the context of the WHO-EU Nursing Action Project, the report portrays the data from all the EFN Members' countries, not only those that are part of the Nursing Action Project. For clarity, the 20 countries (at the time of writing) whose national governments signed

an agreement with WHO to join the Nursing Action Project are: **: Bulgaria, Cyprus, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain and Sweden.**

As a central component of the WHO-EU Nursing Action Project, the content of this Best Practice Report complements the Literature Review carried out between November 2024 and February 2025. Both the literature review and the best practice report support the drafting of a Policy Brief with key recommendations to implement Safe Staffing Levels across the EU and Europe.

3.3 Country Reports

Q1. Do you have a legislation in your country in relation to Safe Staffing Levels? If No, state the reasons for not having established Nursing Safe Staffing Levels in your country.

An examination of the Safe Staffing Levels legislation landscape across the 35 European countries that are represented through the EFN reveals that while there is still room for progress when it comes to comprehensive, mandatory Safe Staffing Levels laws, compared to the results of the EFN TdT Report on Safe Staffing Levels (2023), there have been important improvements in a relatively short amount of time. Out of the 33 European countries from which data is available, 23 (compared to 11 in 2023) reported having some type of legislation or non-legislative framework on Safe Staffing levels or being in the process of developing one, including: Albania, Belgium, Croatia, Cyprus, the Czech Republic, Estonia, Finland, France, Germany, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Norway, Poland, Portugal, Slovakia, Spain, Switzerland, and the United Kingdom.

Countries with national legislation/framework linked to Safe Staffing Levels

Of those listed above, 17 countries, including: **Austria**, **Belgium, Croatia, Cyprus, the Czech Republic, Estonia, Finland, France, Germany, Ireland, Italy, Lithuania, Luxembourg, Poland, Portugal, Slovakia,** and the **United Kingdom.** have reported having some type of National Legislation on Safe Staffing Levels. However, these differ greatly in the type of healthcare settings that they target, and it is also clear that while the majority of these legal frameworks are of a mandatory nature, their implementation is often lacking due to limited resources, especially due to nursing shortages.

Some countries have more comprehensive legal frameworks covering most of the healthcare settings. In **Austria**, there are several different legislations, depending on the type of healthcare setting, but there is no single overarching legislation. Which legislation applies depends from the legal entity, the type of hospital, the size, the structural and operational organisation, and the range of services offered by the respective hospital. For specialised wards (ICU, Dialysis, etc.) there is a state-wide legislation for a Nurse to Patient Safe staffing levels. In **Belgium**, the *Royal Decree (RD) of 23rd October 1964* sets the standards for safe staffing levels that hospitals must meet or risk losing their accreditation. These are calculated according to the type of ward, number of beds, and skill-mix, and they apply to **geriatric services**, specialist services such as **surgery,** and **day hospitals**.

In **France**, the existing legislation applies to **general and specialised intensive care units**, where, for example, there must be 2 nurses every 5 open beds, or 1 nurse for every 4 open beds in cardiology intensive care units (see the full list for more details), but also other **specialised units** (see the full list). Moreover, the current mandated ratios are calculated taking into account also other healthcare professionals, and the RN specialisation and competences, according to the hospital unit and patients' needs. Since 2025, a new law has been introduced, establishing the concept of quality ratios, which will be implemented gradually in the coming years, and will extend to all healthcare settings, not only intensive care units. The current legislation only establishes the core principles and implementation timelines, with the quality ratios, skills mix, and other details that will need to be defined in the coming years.

Germany, where the *Nursing Personnel Assessment Ordinance* which entered into force on 1st July 2024, mandates hospitals to determine both the current staffing levels and the target staffing of their wards. The aim of this legislation is to improve the working conditions of nurses in hospitals. Furthermore, in 2022 the Federal Government has also issued the Hospital Nursing Relief Act to gradually reorganise staffing in clinics to achieve better staffing in the long term. Other 3 legislations establish nurse-to-patient ratios for **acute care settings**, **mental health care settings**, **fully inpatient care facilities**. All three of them include provisions for skills mix, allowing for a minimal part (no more than 10% on average) of the services to be met by healthcare assistants, with requirements that vary between day and night shifts. **Ireland**, where there is no underpinning legislation, however there are two Framework Agreements in relation to safe staffing and skill mix within general and specialist Medical and Surgical Wards (2018) and Emergency Departments (2022). The agreed skill mix for Medical and Surgical Wards is 80% RN and 20% HCA, while for Emergency Departments it is 85% RN and 15% HCA.

In **Italy**, several different legal frameworks and guidelines at both the national and regional levels apply to the hospital setting, including **general medicine** (1 nurse per 6-9 patients) and **intensive care** (1 nurse per 2 patients), as well as to the community settings, which include **family nurses** (1 per 3,000 population), **central operative services** (3-5 nurses per 100,000 population), **community care services** (1 nurse per 100,000 population), **community health houses** (9-11 nurses per 50,000 population), and **community hospitals** (7-9 nurses per 20 beds). These standards are calculated according to patients volume, nurses' workload, care complexity, population size, and access to services. Despite this multilayered and comprehensive approach, due to shortages and a lack of enforcement, the laws are often not implemented.

In **Poland**, several different healthcare settings are covered by the current regulations, but the their complexity allows hospitals to freely apply nurse employment standards, and ad hoc increases in the load or the intensity of treatment do not usually result in a change in nursing staffing standards; **Portugal**, where the legislation which sets the standard for the calculation of safe staffing levels, was developed by the **Ordem do Enfermeiros** (EFN Member), and applies to all areas of nursing. While non-binding, and it does not establish fixed ratios, it provides clear formulas for calculating the most adequate nurse-to-patient ratios, taking into consideration patient acuity, the institutional design, professional competencies of the nursing team, and their specific education. In **UK**, there is currently no legislation in England, but Scotland has had a legislation since 2024 to cover the NHS and social care systems for the use of a workforce modelling tool,; Wales has had legislation since 2016, introducing a standardised national approach to safe staffing; and Northern Ireland will soon follow. However, none of them establish ratios. On the other hand, complex models, which take into account several aspects, such as skills mix, professional judgment etc… are used to calculate safe staffing levels.

Then some countries' legislation is less comprehensive, covering only specific healthcare settings, like **Cyprus**, where the legislation applies only to **private hospitals and clinics**, and safe staffing levels are calculated depending on the type of unit and the severity of the patients. However, in the public sector there are agreements on Safe Staffing Levels between the Ministry of Health and the Nursing Unions. In **Estonia**, legislation on safe staffing levels applies only to **nursing hospitals** (1.5 nurses and two healthcare assistants per 20 patients)**, intensive care units, and outpatients work**. In **Finland**, the current legislation establishes staffing ratios for **elderly care services,** establishing that there must be at least 0.6 employees per client. The calculation is based on the full-time equivalent of the staff, considering both nurses and healthcare assistants.

In **Luxembourg**, the "*commission des normes*" was established in 2023 to determine staffing standards across different healthcare settings. While it does not establish fixed ratios, it calculates staffing needs over time, ensuring that hospitals can plan their staffing decisions to satisfy the care demand. These

standards account for skills mix in, as they consider healthcare assistants, RN, and specialist nurses. Furthermore, specific ratios exist, according to the Social Security Book, which apply to the **long-term care sector**.

On the other hand, some countries' legislation on safe staffing levels focuses explicitly on *minimum staffing* levels, like **Croatia**, where in addition, the legislation allows each healthcare institution to set its own organisational staffing framework; the **Czech Republic**, where the *Decree No. 99/2012 Coll* is quite a broad legislation that encompasses most hospital wards, establishing that healthcare services must have adequate staffing levels, taking into consideration RN, but also healthcare assistants and other healthcare professionals. However, it does not establish fixed-ratios, leaving it to each hospital to determine staffing needs according to professional judgment and internal guidelines; In **Slovakia**, the *DECREE 44/2008* establishes the minimum safe staffing requirements, taking into consideration interprofessional teams, qualifications requirements, and the number of open beds, but it does not set fixed ratios or specific skills mix requirements, which are decided by the individual healthcare institutions. However, this is being replaced by the Slovak government by two new, separate Decrees (not yet available to the public), which will focus on the outpatient and institutional sector respectively.

Finally, in **Lithuania**, legislation of a recommendatory nature was approved by the Ministry of Health in 2021, which determines the number of patients per nurse and the number of nursing assistants depending on the profile of the department or unit of the health institution, and it applies to **units of reanimation and intensive care, palliative care service provision, dialysis nursing care, outpatient home care services, inpatient nursing care**. However, these standards vary between day and night shifts and weekends.

While these national legislations show some differences, they all recognise that Safe Staffing levels, with mandated safe nurse-to-patient ratios, are directly linked to patients' safety and quality of care, but also to the safety of the nurses. This is very important, as it implies that unsafe staffing levels are a potential risk factor for the psychosocial safety of the nurses, and are therefore a matter of Occupational Safety and Health (OSH). Therefore, it shows that there is clear remit for shared competence between the EU and the Member States when it comes to regulating Safe Staffing levels, as the EU has developed already more than 20 individual directives on OSH, including the framework directive (89/391/EEC) and the Directive 2010/32/EU on the prevention from sharp injuries in the hospital and healthcare sector, spearheaded by the EFN (EPSU, 2024).

Countries with a non-legislative framework on Safe Staffing Levels

In **Albania**, the National Health Strategy 2021-2030 mentions objectives for strengthening human resources, including increasing the admission quotas for nurses and improving their working conditions; in **Malta,** the Malta Union of Midwives and Nurses (MUMN) (EFN Member), has made agreements with hospital management related to Safe Staffing Levels; in **Norway**, the Norwegian Nurses Organisation (NNO) (EFN Member) has worked for many years to develop a patients-focused staffing norm, which they are currently implementing at the municipal healthcare services level, encompassing several sub-services, including nursing homes, 24-hour care, health stations, home nursing, school health services, among others; in **Switzerland**, national legislation does not exist, but in some cantons, legislation on Safe Staffing Levels for long-term care institutions exists; in **Netherlands**, the Quality Compass ('*Kwaliteitskompas*'), focuses on quality of care through dialogue and collaboration, rather than fixed staffing ratios.

Countries on track to develop national legislation

In **Iceland and Spain,** negotiations for the development of Safe Staffing Levels Legislation are ongoing at the government/parliament level. In **Spain**, the Spanish General Council of Nursing (EFN Member) has succeeded in bringing a legislative initiative to the Congress of Deputies. This is currently being

discussed, and despite uncertainty on the final outcomes, it would establish minimum nurse to patient ratios. In **Iceland**, the Icelandic Nurses' Association (EFN Member), in its latest collective agreement (November 2024), has succeeded in convincing the Minister of Health to issue a statement on Safe Staffing Levels and to set up a task force on Safe Staffing Levels tasked with proposing national measures on this topic by 2026.

Reasons for not having established safe staffing levels legislation

With regards to the reasons for not having established safe staffing levels legislation, it is clear that the most prevalent reasons include nursing shortages, budget and financial constraints, and lack of political will. In **Bulgaria**, due to critical shortages, nurses are forced to work in multiple workplaces to prevent the healthcare system from collapsing. Budget and financial constraints are reported to be a major issue for **Finland, Norway, Latvia**, and **England**. Additionally, **Latvia** and **England** reported nursing shortages as another major constraint, while the lack of political will was emphasised as the major constraint in **Denmark** due to the level of decentralisation of the healthcare services, as well as in **England**, **Serbia**, **Slovenia** and **Switzerland.** In **Spain** a major constraint is represented by the resistance of private healthcare institutions, which are currently employing less nurses and would be required to comply with nation wide standards.

Q2. Do you have an established method of determining nursing staffing level and skill mix in your country? If yes, which of the following 8 models does it follow *(multiple-selection is possible - see here for the definitions)*: 1. Benchmarking; 2. Volume-Based; 3. Patient/Acuity; 4. Budget Based; 5. Team Based; 6. Professional Judgement; 7. Multi-Factorial Indicator; 8. Timed-Task. If yes, is this a government approved method?

An established method of determining nursing staffing level and skill mix exists in the majority of the EFN Members' countries from which data is available. The only countries where such a method is not available include Bulgaria, Cyprus, Latvia, Netherlands, and Romania. Further analysis shows that in the majority of the countries the method is government-approved; however, it is also clear that there are many variations in the types of models being followed.

Countries with an established method that is government-approved

Some countries' established method is based on a single model, including **Belgium**, where it is based on a *Budget-Based* model, as established in the *Royal Decree amending the Royal Decree of 25th April 2002* (2019). The same type of model is followed by **Denmark**, **Montenegro** and **Serbia**. **Croatia** follows a *Team-Based* model, and **France** follows a *Volume-Based* model.

Other countries combine two different models in their established methods, including **Austria**, where it is based on a *Patient/Acuity* model and on the nurses specialisation; **Germany,** which follows a mix of *Volume-Based* and *Patient Acuity* models; **Italy**, where several different national guidelines and regional models follow mainly a combination of *Timed-Task* and *Patient/Acuity* models. As an example, the following is a model developed by the National Agency of Regional Services (AGENAS); **Luxembourg**, where the *Multi-Factorial Indicator* model is used for hospital settings (but it is about to be changed) and the *Patient/Acuity* and *Timed-Task* models are used for extra-hospital settings; **Norway**, which combines a *Budget Based* and *Patient/Acuity* models; **Poland**, where the method follows a combination of *Multi-Factorial Indicator* and *Benchmarking* models, which however does not apply to all healthcare settings; **Spain**, where the Spanish General Council of Nursing has developed several technical documents establishing recommendations on the number of nurses per patient following the Work Area and *Patient/Acuity* models; and the **UK**, where the widely used Shelford

Group Safer Nursing Care Tool, calculates staffing requirements on the basis of the *Patient/Acuity* and *Professional Judgement* models.

Some countries combine more than two models in their established methods, including **Slovakia,** where the method follows a combination of *Volume-Based*, *Patient/Acuity*, *Team-Based*, and *Timed-Task models*; **Portugal**, where the method is integrated into the regulation setting Safe Staffing levels standards developed by the Ordem dos Enfermeiros, and it follows a combination of all the 8 models indicated excluding the *Budget Based* model; **North Macedonia,** which follows all the 8 models indicated; as well as the **Czech Republic**, which follows mixed methods. In **Ireland**, the Trendcare tool follows mainly a *Patients Acuity* model, in combination to other factors such as workload,

Finally, some countries' methods follow models other than the ones indicated, like **Albania** and **Lithuania**; **Finland**, where the Resident Assessment Instrument (RAI) is a standardised system used in the context of long-term care services, which will be explained more in detail in the following section; **Sweden**; and **Switzerland,** where the Swiss Nurses Association (EFN Member) and the associations of nurse managers and nurse scientists are on track of developing a methodology, based on national statistics and with risk adjustment/risk stratification.

Countries with an established method that is not government-approved

The countries where the methodology is not government-approved include **Estonia**, where safe staffing levels are determined by individual healthcare institutions following a *Budget Based* model; **Iceland,** where staffing levels are currently determined by healthcare institutions themselves, mainly following a mix of *Budget Based*, *Professional Judgment*, and *Multi-Factorial Indicator* models. Efforts are currently underway to implement standardised and measurable safe staffing levels across the healthcare system; **Malta**, where the method is integrated into the collective agreement that MUMN made with employers, and it follows a *Volume-Based* model; and **Slovenia**, the method follows a *Patient/Acuity* model, which was approved by the Ministry of Health's Consultative Body for Nursing, in consultation with the Nurses and Midwives Association of Slovenia.

Q3. Is your NNA aware of any specific tools/resources to help determine safe staffing levels? This may be at national/ regional/ local level. As you are already using guidance or tools, what could be improved? If not, what kind of tools/ resources do you believe would be most useful to your NNA in the development of Safe Staffing Levels?

The following members reported the existence of specific tools/resources to help determine safe staffing levels at the national/regional/local level in several countries. These EFN Members' countries include: **Belgium**, **Croatia**, **Denmark**, **Finland**, **Ireland**, **Germany**, **Iceland**, **Malta**, **Netherlands**, **Norway**, **Portugal**, **Serbia**, **Slovakia**, **Slovenia**, **Spain**, **Sweden, Switzerland,** and the **UK**. Interestingly, the existence of tools/resources to help determine safe staffing levels is not necessarily linked to the existence of national legislation/frameworks on Safe Staffing levels, as in the case of **Serbia**, **Slovenia** and **Sweden**.

Countries where specific tools/resources for determining safe staffing levels are available

A deeper analysis of the data available shows that tools/resources vary extensively in type and scope from country to country, and several EFN Members have reported issues concerning these tools. In **Belgium**, standards to determine safe staffing levels were first established in with a Royal Decree in 1964, and updated in 1989, however the NNAs have reported that these are no longer appropriate for patients in 2025;

In **Denmark**, there are several governmental management tools for staffing, including an economic framework, clinical guidelines, patient-reported outcome data (PRO-data), and national quality goals. However, in the absence of harmonised safe staffing legislation, all the staffing decisions are taken following financial considerations, thus not taking into account other important aspects such as patients' safety. Furthermore, a 2021 EU funded a project in a Danish hospital attempted to establish new and more evidence-based methods for calculating safe staffing standards, inspired by the Australian Tool Trendcare. The project considered such factors as patients' care needs, the number of nursing hours per patient, their competencies, experience, and education (the skills mix), and the working environment. While the feedback received was positive, the final conclusion is that what is needed is a nationally harmonised approach to safe staffing.

In **Finland**, the RAFAELA® Nursing Intensity Classification System was developed to calculate the nurses' workload according to: the patients' daily care requirements, the availability of nursing resources, and the type of nursing care. It supports planning, assessment, and management of the nursing staff. Furthermore, there is also the Resident Assessment Instrument (RAI) which is standardised instrument, made up by different assessment tools, designed for different services and target groups, including elderly patients, people with intellectual disabilities, and for developing treatment and rehabilitation plans. Currently, using the RAI for elderly services is mandate by law. In **Iceland**, the RAFAELA® Nursing Intensity Classification System is also used. The Icelandic Nurses Association (EFN Member) reports that as a tool is provides accurate information on safe staffing needs if used correctly. However, as its documentation is not compatible with the ICNP (International Classification for Nursing Practice), it can lead to inefficiencies that take away time from direct patient care, contributing to dissatisfaction among nurses.

In **Germany**, the PPR 2.0", is a new tool that supports the implementation of the Nursing Personnel Assessment Ordinance by supporting staff in determining adequate nursing staff requirements in hospitals, so that appropriate care to patients can be provided. These targets can then be compared to actual staffing levels, which will support the development of regulations to gradually improve staffing levels. In **Ireland**, an ICT programme called "Trendcare" is used to facilitate the calculation of the appropriate staffing, calculating nursing hours per patient day. This tool is used mainly in Medical and Surgical Wards, where the agreed skills mix is 80% RN and 20% HCA.

In **Malta**, MUMN has reported that while tools exist, they have never used them, as they consider them ineffective if there are nursing shortages; In the **Netherlands**, different tools and resources are available for healthcare institutions to determine safe staffing levels. These include the '*Zorgzwaartepakketten*', which is used to assess care needs for patients in long-term care, the Nursing Care Registration, which is used to document nursing activities and linking them to workload measurements, and the Patient (Acuity) Scoring Systems, which are used to calculate care needs in hospitals electronically. However, these are not nationally mandatory and are adapted to the specific needs and context of healthcare institutions. In **Italy** there are no specific tools because the legislation already established the staffing needs according to nurse-to-patient ratios.

In some countries the tools were developed by the EFN Members, like in **Norway**, where the Norwegian Nurses Organization (NNO) has developed guidelines and frameworks in collaboration with employer associations and healthcare institutions to ensure safe staffing levels, in addition to the existence of several digital tools developed over time that can assist in staffing planning; in **Portugal**, where the Ordem dos Enfermeiros has developed a tool called the 'Safe Staffing levels Calculator' (2023) which allows all registered nurses to quickly calculate the most appropriate staffing levels to ensure quality and safety by entering a few details, such as context, capacity, unit, among others;

In **Slovakia**, the new decrees of the Ministry of Health, which are on their way, will support the definition of safe staffing levels, both in the outpatient and institutional settings, while giving flexibility

for each healthcare facility to adjust the optimal conditions according to their own specificities; In **Slovenia**, the Slovenian Categorisation of Hospital Nursing Care Complexity handbook, is a tool designed for hospital settings to support staffing calculations, care planning, and national workforce needs assessments. The handbook categorises patients according to four different levels of care complexity, defining the most appropriate staffing needs per patient, while also accounting for skills mix. For example, for category 1 patients, it defines a ratio of 2.4 patients per 3 healthcare providers, of which 2 are healthcare assistants and 1 is a registered nurse, while for category 4 patients (very high staffing intensity), the ratio should be 1 patient per 3 RN. For the hospitals implementing this model, data is collected regularly as hospitals have to submit annual reports, and internal and external evaluations take place on a yearly basis.

In **Croatia**, the Croatian Nurses Chamber, the country's regulatory body for nursing, has developed guidelines on safe staffing; in **Spain**, the Spanish General Council of Nursing (EFN Member) is working with the Ministry of Health to method to help determine the profile and number of nurses needed according to patients' needs, withing an overall Strategic Care Framework; In **Sweden**, there are different methods in various regions and operations developed by individual employees specifically to measure care intensity/ratios within that unit; In **Switzerland,** there is a Skill Mix Configurator tool which is used in combination with Rai-HC for the long-term care setting.

In the **UK**, different tools are available. The Shelford Group Safer Nursing Care Tool (SCNT) is a tool used in England, which calculates clinical staffing requirements based on patients' needs which together with professional judgement, guides chief nurses in their safe staffing decisions. Furthermore, the RCN Nursing Workforce Standards are a tool used to support safe staffing levels across the UK, by setting standards for high quality and evidence-based care. While they do not define a specific model or tool, they can be used where there are already established practices to support decision-making.

Tools/Resources which would be useful to the NNAs in the development of Safe Staffing Levels

The **Danish Nurses Organisation** (DNO) highlighted the need to collect more research-based knowledge about the impact safe staffing levels have on patients and citizens, as well as best practices, good business cases for implementing the standards, and practical examples of how to implement them. This is particularly the case because safe staffing tools are very complex and complicated to implement, representing a heavy time burden. A similar call was made by the **Nurses and Midwives Association of Slovenia**, which reported the need for access to more and better data on staffing levels at the national level so that better measures can be developed; and by the **Slovak Chamber of Nurses and Midwives**, which reported that more tools are needed in relation to the ongoing categorisation of hospitals, geographical accessibility, infrastructure, and national minority.

The **Estonian Nurses Union** (ENU) calls for a national agreement, as well as any guidance material and best practices that would provide arguments and tools. Similar calls have been made by **the Latvian Nurses Association**, the **Lithuanian Nurses' Organisation**, and the **Macedonian Association of Nurses and Midwives**.

The **Finnish Nurses Association** raised that the guidance or tools used by individual units/organisations do not guarantee relevant resources, as financial reasons are prioritised, and that tools/resources need to be legally based and harmonised across the country; and the **Polish Nurses Association** reported that implementing Artificial Intelligence tools would be beneficial since safe staffing levels are based on multi-factor analysis, which is subject to time changes.

Q4. How is your NNA involved in developing and setting Safe Staffing Levels at the national level?

With regards to the National Nurses Associations' (NNAs, EFN Members) involvement in developing and setting Safe Staffing Levels at the national level, the data analysed shows clearly that the EFN Members are playing a crucial role in the majority of countries. Their involvement is multifaceted, consisting of various forms of advocacy, as well as collaboration with key national institutions which request the EFN Members' extensive expertise on the topic of Safe Staffing levels. In fact, many NNAs actively participate in government discussions, advisory councils, and legislative processes to push for the development and implementation of Safe Staffing Levels legislation at the national level.

Several EFN Members play a crucial role in the development of Safe Staffing levels legislation through their advocacy work, like the **Albanian Order of Nurses**, which participates in training and congresses focused on health policies and safe staffing standards to exchange best practices; the **Fédération Nationale des Infirmières de Belgique** and the **General Nursing Union of Belgium**, which are responsible for appointing nursing experts to federal councils and commissions advising health ministers; the **Croatian Nurses Association**, which participates in the Ministry of Health's working groups, as well as organises professional nursing conferences on safe staffing in order to educate frontline nurses. In Ireland, the **Irish Nurses and Midwives Organisation (INMO)** is working actively in dialogues with the governments' authorities through social and collective dialogue.

Similar advocacy work is done by the **Consociazione Nazionale delle Associazioni Infermiere/i** (CNAI) in Italy, or the **Lithuanian Nurses' Organisation**, which are advocating for reducing nursing shortages, improving working conditions, and implementing Safe Staffing standards through dialogues with the Ministry of Health; as well as by the **Norwegian Nurses Organisation** and by **Nieuwe Unie'91** (NU'91) in the Netherlands, which engage in policy discussions and collaborate with key national, regional, and local stakeholders, although the decision-making power remains a competence of healthcare institutions; or the **Royal College of Nursing** (RCN) in the UK, which is campaigning for the introduction of Safe Staffing levels legislation in England, is actively involved in the development of related policies, and provides resources to empower individual nurses to advocate for Safe Staffing levels in their workplaces.

Some EFN Members are also actively involved in the writing of Safe Staffing levels legislation, like **Cyprus Nurses and Midwives Association**, which was involved in the negotiations and discussions which led to the development of the legislation on Safe Staffing levels for private hospitals; the **Polish Nurses Association**, which contributes to the design of legislation on Safe Staffing levels and to their updating; the **Ordem dos Enfermeiros** in Portugal, which has issued safe staffing recommendations which have become the national agreed standard on Safe Staffing levels.

The same is the case for the **Association Suisse des Infirmières et Infirmiers**, which, together with other key stakeholders, has successfully advocated for a constitutional article on nurse staffing and quality of nursing; the **Icelandic Nurses Association,** which through the collective agreement, has succeeded in convincing the Minister of Health to develop a working group on Safe Staffing levels, tasked with the development of legislation by 2026, and it holds a seat in the working group; and the **Spanish General Council of Nursing** which is collaborating and participating in the working group created by the Ministry of Health in order to establish a nationally agreed method for determining Safe Staffing levels.

However, challenges persist for some NNAs, like for the **Bulgarian Association of Health Professionals in Nursing** (BAHPN), which was initially involved in a working group on developing and setting Safe Staffing levels, but as the Minister of Health was replaced, these discussions failed; for the **Estonian Nurses Union** (ENU), which despite intensive advocacy, the resistance from the

employers has prevented the development of nationally standardised Safe Staffing levels; for the **Danish Nurses' Organisation** (DNO)**,** which faces difficulties due to the absence of a Chief Nursing Officer (CNO); or for the **Czech Association of Nurses** and the **Latvian Nurses Association**, which input is often sought but not necessarily implemented.

Q5. Are you aware of any kind of training that is provided to nurses, specifically those responsible for Safe Staffing, to support them with this task?

Training for nurses, specifically those responsible for Safe Staffing, is available in several EFN Members' countries. The provider of the training varies from country to country, with some countries where the EFN Members develop and deliver targeted training for nurses responsible for Safe Staffing, and others where training is organised and offered directly by employers.

Countries where the NNA provides training

The **Order of Nurses of Albania** collaborates for the development of continuing education materials and programmes, including conferences, seminars, workshops, and lectures; the **Croatian Nurses Association** independently organises conferences on Safe Staffing levels to exchange best practices; the **German Nurses Association** offers training on the use of the tools which were developed by the Federal Government in order to assess safe staffing needs; the Norwegian Nurses Organisation (NNO) provides training for their employee representatives in working hours and shift planning.

In **Portugal**, transversal training takes place in the context of formal nursing education, but **the Ordem dos Enfermeiros** also develops training through a technical support body called the "Estrutura de Idoneidade Formativa" (Training Suitability Structure), where training on safe staffing is compulsory; and in the UK, the **Royal College of Nursing** (RCN), provides training for team managers on the use of the Nursing Workforce Standards.

Countries where training is organised and delivered by employers

In **Finland** and **Iceland**, employers provide training for their employees on how to use the tools available, including the RAFAELA® Nursing Intensity Classification System and the Resident Assessment Instrument (RAI). Similarly, in **Italy,** some training is organised for nurse directors at the regional level, and in the **Netherlands**, training for nurses responsible for Safe Staffing is typically provided at the institutional level. This includes courses on capacity management, workload assessment, and leadership skills, often organised by employers. A similar approach is followed in **Slovenia**, where training takes place in the context of acquiring additional management and leadership skills. Training is also offered by employers in **Switzerland** and in healthcare institutions where the AI tool EPIC is used, a tool that carries some advantages but also many risks. In the **UK**, a Fundamentals of Safer Staffing programme is available on the NHS Learning Hub.

In **Poland**, a lot of training was available when the first regulations on safe staffing were adopted in 1999, but nowadays, due to the heavy workload of nurse managers, these are neglected.

Q6. Is there an established process for reporting when Safe Staffing Levels are not met? This can be at national/ regional/ local level. If yes, does the reporting process supports any concrete action that enables Safe Staffing Levels to be met? (Please specify the response)

With regards to the presence of an established process for reporting when Safe Staffing Levels are not met, a large share of the EFN Members' Countries reported that these processes vary greatly according

to the national context and that, furthermore, it is quite unclear whether the reporting processes support any concrete action that enables Safe Staffing Levels to be met in some cases.

Countries where the reporting process supports concrete actions that enable Safe Staffing levels to be met

Countries where individual nurses can report cases when Safe Staffing levels are not met include **Finland**, where self-monitoring by service providers is implemented, and if this is not achieved, the personnel submit a grievance report, and the supervisor must take action without taking any retaliatory measures against the notifier(s) and if nothing changes, then the relevant authorities intervene; **Norway**, where if the employer does not follow up after the reporting, it also possible to report the matter to the Norwegian Labour Inspection Authority, which can conduct inspections and require the employer to rectify the staffing situation if necessary; **Portugal**, where the reporting triggers a monitoring visit by the Ordem Dos Enfermeiros (EFN Member); **Slovakia**, where nurses report any staffing issue to the head nurse, and staffing levels must be met in compliance with the Decree 44/2008; and the **UK**, where the Datix system is employed for incident reporting of patient safety. However, as this reporting sometimes takes too long or leads to retaliatory measures against the individual nurse, the RCN has developed letter templates and advises staff to report whenever patient safety issues arise.

Other countries have specific systems, like **Cyprus**, where under the existing legislation, it is possible for the license to practice to be removed from private hospitals and clinics in cases when safe staffing levels are not met during the relevant inspections; **Germany,** where real staffing levels have to be reported continuously or as regulated by law, and penalties, including retrospective penalties, can be enforced by the relevant authorities; or **Montenegro**, where the Ministry of Health adopted a Strategy for Improving the Quality of Healthcare leading to the implementation of modest actions to achieve Safe Staffing levels.

In other countries, the reporting takes place in the context of collective agreements, like in **Malta**, where nurses complain with MUMN, which settles the issue with employers; or **Spain**, where in the absence of regulations on Safe Staffing levels, trade unions have the capacity to exert pressure so that employers agree on minimum staffing levels and they monitor that these agreements are respected and complied with.

Countries where the reporting process does not support concrete actions to enable Safe Staffing levels to be met or where the results are unclear

In some countries, from the data available, it is unclear if any actions take place even if reporting is available, like in the case of **Albania**, where healthcare institutions report to the Ministry of Health in cases of staffing issues and when Safe Staffing levels are not met with unclear results; **Croatia**; **France**, where healthcare institutions have the responsibility to decide on bed closures and to report shortages to the Regional Health Agency; **Sweden**, where several different national authorities are responsible for overseeing staffing levels, however, it is unclear whether any action is taken in cases when Safe Staffing levels are not met; and **Switzerland**.

In other countries, due to different factors, it is clear that no action takes place despite the availability of reporting systems, like **Iceland**, where reporting systems exist both within the largest hospital in the country, and at the national level through the Directorate for Health, which enables nurses to notify authorities when safe staffing levels are not met, but nursing shortages and the absence of a national legislation on safe staffing levels prevent concrete actions; **Italy**, where at the local level nurse managers establish an alert system for the regional level and report shortages to the national level, but there are no results due to nursing shortages; **Poland**, where there are formal processes in place, including annual reports being drafted on the state of nursing, but they do not lead to any concrete action; and **Slovenia,**

where reporting is mandatory for hospitals, but any action is difficult to implement due to staffing shortages.

Q7. Do you have established an agreement for nurses not being accountable in cases that Safe Staffing Levels are not met? If Yes, please attach it (translated in English please)

With regard to the level of legal protection for nurses in cases where adverse patient outcomes are the result of the absence of Safe Staffing levels, the situation across Europe remains concerning. Such an agreement is available in **Cyprus** – but only for the private sector, **Finland, Germany, and Norway** - not a specific agreement but notwithstanding regulated by the Working Environment Act. In **Ireland**, such an agreement exists in relation to Emergency Departments which was reached as part of a dispute in 2015/2016.

With regard to other countries where some level of protection exists, such as **Italy**, **Malta**, and the **Netherlands**, there are collective agreements that, in certain instances, protect nurses from individual liability. In **Portugal**, liability is analysed on a case-by-case basis, but nurses have the option of submitting excuses for liability, which the Ordem dos Enfermeiros then sends to the respective healthcare institution and the Ministry of Health. In **Slovakia**, nurses who are members of the Slovak Chamber of Nurses and Midwives (EFN Member) receive legal support in matters related to employment law and the nursing profession.

Overall, the situation in Europe remains concerning, as in 73% of the EFN Members' countries, nurses have no protection in cases when adverse patient outcomes are the result of Safe Staffing levels being unmet.

Q8. Are you aware of any established agreement that makes the healthcare facilities accountable for cases where Safe Staffing Levels are not met? If Yes, please attach it (translated in English please)

Currently, healthcare facilities can be held accountable (in some cases) when Safe Staffing levels are not met in **Cyprus**, **Finland**, **France**, **Germany**, **Italy, Malta**, **North Macedonia**, **Norway**, **Portugal**, **Spain**, and the **UK** (only Wales). Furthermore, the type of agreements in place differs extensively from country to country, providing different levels of protection for the nurses working in the healthcare facilities in question.

In **Cyprus**, private hospitals and clinics need to comply with Safe Staffing levels in order to keep their accreditation, and the same happens in some other cases, like **North Macedonia** and **Italy,** although in Italy implementation of legislation is lacking. Similarly, in **France**, in cases of non-compliance with Safe Staffing levels legislation, the healthcare facilities' capacity is reduced or outright suspended. In **Wales**, a specific legislation holds healthcare facilities accountable for maintaining safe staffing standards.

In **Finland** and **Germany**, the employer is responsible for ensuring that safe staffing levels are met. The same is true for **Norway**, where this is regulated by the Working Environment Act. In **Portugal**, on the basis of the complaints made by nurses, the Ordem dos Enfermeiros has recourse to organisations such as the General Inspection of Health Activities and the Regulatory Entity for the Profession, which will inspect the healthcare facilities in question.

In **Malta** and **Spain,** the healthcare facilities' accountability is established, monitored, and enforced through collective agreements.

3.4 EFN Best Practices – Conclusions

The data clearly shows that more and more European countries recognise the importance of Safe Staffing levels, with 23 countries, compared to 11 when an EFN survey on Safe Staffing levels was conducted in 2023, having now developed and implemented some type of legislation or non-legislative framework on Safe Staffing levels (Iceland and Spain are on track of developing one. Moreover, 28 countries now have an established methodology to determine Safe Staffing levels and skill mix, which is approved by the government in the majority of the cases. Furthermore, EFN Members (National Nurses' Associations) are playing a crucial role in developing and setting Safe Staffing levels at the national level in 28 countries through multifaceted involvement, consisting of various forms of advocacy, as well as collaboration with key national institutions which request the EFN Members' extensive expertise on the topic of Safe Staffing levels.

On the other hand, with regards to the existing legislation on Safe Staffing levels, the data also reveals that these legal frameworks can vary extensively in their scope and healthcare setting targeted, and while the majority of these legal frameworks are of a mandatory nature, their implementation is often lacking due to limited resources, especially due to nursing shortages. Great variations are also seen among the methodologies employed to determine Safe Staffing levels and skill mix. Furthermore, training available for nurses responsible for Safe Staffing is still largely missing, and in the majority of European countries, nurses are still liable for adverse patient outcomes, which are the result of the Safe Staffing levels not being met.

The findings of the survey, therefore, clearly raise the need for concrete policy interventions at the EU, European, and Member-states level, at a time when a window of opportunity has opened which must not be wasted at any cost. This is also the case because the EU has clear legislative competence on Safe Staffing Levels, as staffing is a potential occupational risk factor, and therefore related to Occupational Safety and Health (OSH), on which the EU has developed already more than 20 individual directives, such as the framework directive (89/391/EEC) and the Directive 2010/32/EU on the prevention from sharp injuries in the hospital and healthcare sector, spearheaded by the EFN. This legislation is key therefore, because despite Safe Staffing Levels with mandated safe nurse-to-patient ratios are context specific, they all lead to significant safety and well-being improvements:

1. Understaffing leads to dissatisfaction, disenchantment, and burnout. On the other hand, healthy work environments, with safe staffing levels and adequate resources lead to higher job satisfaction, lower levels of burnout, and therefore lower turnover rates. Furthermore, nurse to-patient ratios, lead also to lower levels of burnout and job dissatisfaction among medical doctors (Global Nurses United, 2025; Aiken, 2025).

2. Workplace violence is higher in units with unsafe nursing staffing levels, as long waiting times make patients and their families more aggressive. In fact, safe staffing levels, swift access to care, and adequate physical protection (including security on the ward) all contribute to preventing workplace violence. This is key, as the experience of workplace violence directly impacts nurses' decision of whether to remain in the profession (Global Nurses United, 2025).

3. Only with safe staffing can nurses effectively screen, isolate, and care for patients, limiting the spread of infectious diseases. Otherwise, nurses do not have adequate time to follow essential safety protocols, thus becoming more exposed to the risk of infection themselves. Research demonstrates that nurses in hospitals with better staffing have 62% lower odds of sustaining a

needlestick injury, and are much less prone to blood and body fluid exposures (Global Nurses United, 2025).

4. Nurse-to-patient ratios are associated with better patient outcomes, including statistically significant fewer deaths, fewer readmissions, and fewer hospital days. Furthermore, they also lead to important money savings, which is crucial at a time of austerity and limited financial resources. Thus, legislation on safe staffing levels mandating nurse-to-patient ratios is not just an investment, but also a public good, freeing up financial resources that can be used to recruit more nurses and strengthening healthcare systems (Aiken, 2025).
5. Supporting the previous point, nurse-to-patient ratios have been found to be a crucial factor contributing to successful resuscitations in the hospital. In fact, the better the nurse staffing, the faster can nurses initiate lifesaving resuscitation, and the greater is the likelihood for patients to survive an in-hospital resuscitation. Furthermore, their neurological status was also found to be significantly better upon hospital discharge (Aiken, 2025).
6. Safe staffing levels greatly improve the accessibility of care, especially in rural and underserved areas. All the existing case studies have demonstrated that in hospitals which have implement safe staffing levels, patients receive more hours of direct RN care, and waiting times are significantly shorter (Aiken, 2025).
7. Mandated nurse-to-patient ratios, ensure the employer's accountability through regular reporting, thus protecting the frontline nurses from legal liability in cases of adverse outcomes resulting from unsafe staffing levels. As they offer a transparent and easily understood framework, and they make it easier to hold governments accountable for any political commitments on safe staffing levels, mandated nurse-to-patient ratios are widely supported by nurses in those countries which successfully implemented them (Buchan, 2024).

4. Recommendations

Building on the best practices identified in Section 3, we now present a comprehensive framework of recommendations organised by stakeholder group and implementation timeline. These recommendations aim to shift the promising but fragmented approaches to safe staffing seen across Europe into a cohesive, effective system that protects both patients and nurses.

4.1 Policy-Level Recommendations

A coordinated approach between EU and national authorities is essential to create a sustainable framework for safe staffing levels.

4.1.1 EU Legislation on Safe Staffing Levels

Building on current momentum, the EU should work to develop legislation that establishes minimum requirements while allowing for limited contextual adaptations at national level. The fragmented nature of current regulatory frameworks, with only 23 of 35 countries of EFN Members having any form of safe staffing provisions, creates inconsistent patient safety standards across Europe. Comprehensive EU legislation should address this through:

- Defining clear safe nurse-to-patient ratios tailored to different clinical settings and patient acuity levels.
- Establish monitoring mechanisms with meaningful consequences for non-compliance.

This legislation must consider provisions for appropriate skill mix, recognising the vital role that registered nurses play in positive patient outcomes. It should also reference standardised methodologies for determining staffing needs while respecting the variations in national healthcare systems. The successful models implemented in countries like the US, Canada, and Australia provide valuable templates that can be adapted to the European context.

Furthermore, to support the enforcement of an EU Directive on Safe Staffing Levels, the EU should develop in parallel a Directive on Psychosocial Risks which accounts for unsafe staffing levels as a risk factor for frontline nurses. The parallel implementation of the two directives would ensure that Safe Staffing levels are recognised as mandatory to protect both the quality and safety of patients' care, but also the psycho-physical health of frontline nurses.

4.1.2 Sustainable Funding Mechanisms

Financial constraints emerged as a significant barrier to implementing safe staffing levels across multiple countries in the EFN survey. Without dedicated resources, even the most robust policies can fail to translate into practice. The economic case for safe staffing is compelling – investments in adequate nursing staff yield returns through improved outcomes, reduced complications, and shorter lengths of stay. To overcome financial barriers, dedicated funding streams could be established through:

- Developing a specific EU Healthcare Workforce Capacity Fund to support implementation of safe staffing initiatives.

Member states should be encouraged to allocate dedicated funding for nursing workforce development, with recognition that these are investments rather than costs. Funding should also support retention strategies that make each recruitment more sustainable, addressing the revolving door of nursing turnover that plagues healthcare systems across Europe.

4.1.3 Data Infrastructure and Monitoring

Effective safe staffing requires robust evidence and oversight. Currently, data collection on staffing levels and related outcomes is inconsistent across Europe, making it difficult to monitor compliance or measure progress.

- Consider reporting systems that make nurse staffing information accessible to policymakers, healthcare leaders, and the public.

The visibility provided by reporting systems can create accountability and drive improvement. The infrastructure could include early warning systems to identify emerging workforce challenges before they reach crisis levels. Additionally, continued research on the relationship between various staffing models and patient outcomes can refine our understanding of optimal approaches in different contexts.

4.2 Recommendations for Healthcare Organisations

Healthcare organisations should take responsibility for translating policy frameworks into operational reality, creating systems that support safe staffing on a daily basis.

4.2.1 Transparent Staffing Systems

Our survey revealed significant variation in how staffing decisions are made and communicated across Europe. To ensure accountability and effective resource allocation, healthcare organisations could share real-time staffing information visible to both patients and staff. This transparency can create awareness of potential risks and enable proactive responses.

- Formal processes for reporting and addressing staffing shortfalls, with clear escalation pathways when initial responses are inadequate, should be developed.

Meaningful frontline nursing input will be crucial in making such staffing decisions, recognising that those closest to patient care have valuable insights into resource needs.

4.2.2 Protect Nurses Through Formal Agreements

One of the most concerning findings in our survey was that most countries offer limited protection for nurses when adverse outcomes result from inadequate staffing. This leaves individual nurses vulnerable for system-level failures beyond their control. Healthcare organisations can address this through:

- Establishing clear statements of organisational accountability for staffing decisions.
- Developing formal liability waivers that protect individual nurses when working in understaffed conditions.

These protections should be coupled with structured documentation systems for staffing concerns that create an objective record of resource constraints. Organisations should implement non-punitive incident reporting focused on system improvement rather than individual blame. This approach can encourage transparent communication about staffing challenges while ensuring that accountability rests at the appropriate level.

4.2.3 Tools and Training

The EFN survey identified significant gaps in training and tools for effective staffing management. Many nurse managers receive no formal preparation for this complex responsibility, and available methodologies are often underutilised.

- Healthcare organisations should provide comprehensive training for nurse managers on staffing methodologies, including patient acuity assessment, workload measurement, and resource allocation.

Digital tools for workload measurement and staff allocation should be implemented to support evidence-based decisions. These should be complemented by decision support systems for dynamic staffing adjustments in response to changing patient needs.

4.3 Recommendations for National Nursing Associations

National Nursing Associations can leverage their professional authority and collective voice to advance safe staffing initiatives at all levels, building on the successes of EFN Members to date.

4.3.1 Support Implementation Through Resources

Policy changes alone are rarely sufficient. NNAs can help bridge the gap between policy and practice through practical implementation support. This includes, for example, developing toolkits that help organisations apply safe staffing methodologies in various practice settings.

- Educational programs on staffing advocacy could equip frontline nurses to participate effectively in workplace discussions about resource allocation.

Such resources can be particularly helpful in countries where policy frameworks are still developing, as they can enable progress even in the absence of comprehensive legislation.

4.4 Implementation Roadmap

The foundation for sustainable change must in the first instance be laid through **working groups at EU and national levels** focused on safe staffing legislation, such as those supported by the EFN. These groups should include nursing representatives and policymakers, as well as other relevant to ensure comprehensive perspectives.

Medium-term efforts should then focus on formalising systems and structures. EU legislation on safe staffing levels can be debated and drafted, providing the legislative framework for national implementation. An **EU Healthcare Workforce Capacity Fund** could be created to provide financial support for implementation efforts. Formal protection mechanisms for nurses in understaffed environments should also be implemented, addressing the vulnerability identified in our survey.

In the long term, full **integration and continuous improvement** of safe staffing systems should be prioritised. Safe staffing standards should be implemented across different healthcare settings, with comprehensive monitoring mechanisms ensuring compliance. Looking further toward the future, healthcare systems should consider developing predictive modelling for nursing workforce needs that anticipate demographic changes, evolving care models, and technological developments.

5. Conclusions

The evidence presented in this policy brief argues unequivocally that safe nurse staffing levels are essential for high-quality patient care, improved health outcomes, and sustainable healthcare systems. Our comprehensive review of literature and survey of EFN members across Europe revealed both encouraging progress and significant gaps in the implementation of safe staffing frameworks.

Since our previous assessment in 2023, the number of European countries with some form of safe staffing legislation or framework has increased from 11 to 23, reflecting growing recognition of this critical issue. Additionally, 27 countries have now established methodologies for determining staffing levels, with National Nursing Associations playing significant roles in advocating for and developing these approaches. This progress demonstrates that the momentum for safe staffing is building across Europe.

Nevertheless, substantial challenges remain. The existing European legislation varies considerably in scope, enforceability, and healthcare settings covered. Most concerning is that in 73% of surveyed countries, nurses have no protection when adverse patient outcomes result from inadequate staffing levels. This vulnerability places individual nurses at risk and creates significant barriers to transparent reporting of unsafe conditions.

The way forward invites coordinated action at multiple levels. EU-level legislation is needed to harmonise approaches and establish minimum standards, while national policies must adapt these standards to specific healthcare contexts. Healthcare organisations must consider transparent systems and accountability frameworks while nursing associations continue their essential advocacy work. Without this multi-level approach, progress will remain fragmented and inconsistent.

Safe staffing is not merely a nursing issue – it is a fundamental patient safety and healthcare quality imperative. The available research clearly suggests that investment in appropriate nurse staffing can yield substantial returns through improved outcomes, reduced complications, shortened hospital stays, and enhanced workforce sustainability. As Europe faces ageing populations, increasing care complexity,

and ongoing healthcare worker shortages, implementing safe staffing frameworks is not optional but essential for resilient healthcare systems.

The EFN Members argue that the time for incremental approaches has long passed. We, therefore, call on policy stakeholders to move decisively toward comprehensive and enforceable safe staffing levels that protect both patients and healthcare professionals. The recommendations and implementation plan outlined in this policy brief offer an ambitious path forward, and the EFN stands ready to collaborate with policymakers, leaders, and health professional stakeholders to translate these recommendations into reality. Together, we can ensure that every patient receives care from an appropriate and safe number of qualified nurses – because safe staffing saves lives.

6. References

1. Abdulai, A. S. B. (2024). Nursing Home Staffing Levels and Resident Health Outcomes: Is the Role of the Physical Therapist Undervalued? *Journal Of The American Medical Directors Association*, *26*(2), 105422. https://doi.org/10.1016/j.jamda.2024.105422
2. Aiken, L. H., et al. (2002) 'Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction', JAMA: Journal of the American Medical Association, 288(16), pp. 1987-1993.
3. Aiken, L. H., Sloane, D. M., Bruyneel, L., Van Den Heede, K., & Sermeus, W. (2012). Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. *International Journal Of Nursing Studies*, *50*(2), 143–153. https://doi.org/10.1016/j.ijnurstu.2012.11.009
4. Aiken, L. H., Sloane, D. M., Bruyneel, L., Van Den Heede, K., Griffiths, P., Busse, R., Diomidous, M., Kinnunen, J., Kózka, M., Lesaffre, E., McHugh, M. D., Moreno-Casbas, M. T., Rafferty, A. M., Schwendimann, R., Scott, P. A., Tishelman, C., Van Achterberg, T., & Sermeus, W. (2014). Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *The Lancet*, *383*(9931), 1824–1830. https://doi.org/10.1016/s0140-6736(13)62631-8
5. Aiken, L. H., Sloane, D., Griffiths, P., Rafferty, A. M., Bruyneel, L., McHugh, M., Maier, C. B., Moreno-Casbas, T., Ball, J. E., Ausserhofer, D., & Sermeus, W. (2016). Nursing skill mix in European hospitals: cross-sectional study of the association with mortality, patient ratings, and quality of care. *BMJ Quality & Safety*, *26*(7), 559–568. https://doi.org/10.1136/bmjqs-2016-005567
6. Aiken L et al. (2021) Effects of nurse-to-patient ratio legislation on nurse staffing and patient mortality, readmissions, and length of stay: a prospective study in a panel of hospitals. https://www.thelancet.com/journals/lancet/article/piiS0140-6736(21)00768-6/fulltext
7. Aiken, L. (2025). Safe staffing: Protecting the health and safety of nurses and patients (Policy Brief). Center for Health Outcomes and Policy Research, School of Nursing, University of Pennsylvania. May 28, 2025.
8. Auditor General of Alberta 2014, Health and Alberta Health Services — Seniors Care in Long-term Care Facilities Follow-up, Auditor General of Alberta, Canada.
9. Australian Nursing and Midwifery Federation. (2023). *ANMF position statement – Staffing and standards in home and residential aged care* (pp. 1–4). https://www.anmf.org.au/media/or0doezc/anmf-position-statement-staffing-and-standards-in-home-and-residential-aged-care.pdf

10. Bae, S., & Kim, H. (2020). Level of Resident Care Need and Staffing by Size of Nursing Home under the Public Long-term Care Insurance in South Korea. *Journal Of Korean Gerontological Nursing*, *22*(1), 1–9. https://doi.org/10.17079/jkgn.2020.22.1.1

11. Ball, J. and Catton, H. (2011) 'Planning nurse staffing: are we willing and able?', Journal of Research in Nursing, 16(6), pp. 551-558.

12. Ball, J.E., Murrells, T., Rafferty, A.M., et al. (2014) 'Care left undone' during nursing shifts: associations with workload and perceived quality of care. BMJ Quality & Safety, 23, pp. 116-125.

13. Bartmess, M., Myers, C. R., & Thomas, S. P. (2021). Nurse staffing legislation: Empirical evidence and policy analysis. *Nursing Forum*, *56*(3), 660–675. https://doi.org/10.1111/nuf.12594

14. Beckett, C. D., Zadvinskis, I. M., Dean, J., Iseler, J., Powell, J. M., & Buck-Maxwell, B. (2021). An Integrative Review of Team Nursing and Delegation: Implications for Nurse Staffing during COVID-19. Worldviews on evidence-based nursing, 18(4), 251–260. https://doi.org/10.1111/wvn.12523

15. Boal, A. S., Silas, L., Canadian Nurses Association, & Canadian Federation of Nurses Unions. (z.d.). Evidence-based Safe Nurse Staffing Toolkit. In *Evidence-based Safe Nurse Staffing Toolkit* (pp. 3–58). https://hl-prod-ca-oc-download.s3-ca-central-1.amazonaws.com/CNA/2f975e7e-4a40-45ca-863c-5ebf0a138d5e/UploadedImages/documents/2019_EvidencebasedsafenursestaffingtoolkitAccessiblecontent2.pdf

16. British Columbia Ministry of Health 2017, Residential Care Staffing Review, British Columbia Ministry of Health, Canada.

17. Buchan J. (2024) Navigating nurse safe staffing approaches in the UK. *The Health foundation*. https://www.health.org.uk/features-and-opinion/blogs/navigating-nurse-safe-staffing-approaches-in-the-uk

18. Cermak, C. A., Bruno, F., & Jeffs, L. (2023). Evaluating Skill-Mix Models of Care. *JONA The Journal Of Nursing Administration*, *54*(1), 25–34. https://doi.org/10.1097/nna.0000000000001373

19. Dall'Ora C, Ball J, Reinius M, et al. 2020. Burnout in nursing: a theoretical review. Human Resources for Health 18(1): 41

20. Dall'Ora, C., Saville, C., Rubbo, B., Turner, L., Jones, J., & Griffiths, P. (2022). Nurse staffing levels and patient outcomes: A systematic review of longitudinal studies. *International Journal Of Nursing Studies*, *134*, 104311. https://doi.org/10.1016/j.ijnurstu.2022.104311

21. Dejonghe, Y., Ricour, C., De Meester, C., Malter, A., Primus-De Jong, C., Van den Heede, K., Van De Voorde, C., Van Durme, M.-T., Wynendaele, H., Trybou, J., & KCE. (2022). *AN EXPLORATIVE SURVEY TO INFORM STAFFING POLICY IN NURSING HOMES: a STUDY CONDUCTED DURING THE COVID-19 PANDEMIC*. https://kce.fgov.be/sites/default/files/2022-09/KCE_Nursing_homes_Report.pdf

22. Department of Health. (2024). *Framework for safe nurse staffing and skill mix: Phase 3*. Government of Ireland. https://www.gov.ie/en/publication/79fb9-framework-for-safe-nurse-staffing-and-skill-mix-phase-3/

23. De Raeve, P., Davidson, P. M., Bergs, J., Patch, M., Jack, S. M., Castro-Ayala, A., Xyrichis, A., & Preston, W. (2023). Advanced practice nursing in Europe—Results from a pan-European survey of 35 countries. Journal of Advanced Nursing, 80(1), 377–386. https://doi.org/10.1111/jan.15775

24. EFN, 2024. EFN Matrix 3+1. Available at: https://efn.eu/wp-content/uploads/2024/01/EFN-Workforce-Matrix-31-Final-Oct.2016-REV-January-2024.pdf

25. EFN, 2024. EFN Policy Statement on EU Nursing Workforce within a Global Safe Staffing Levels Context. Available at: https://efn.eu/wp-content/uploads/2024/04/EFN-Policy-Statement-on-EU-Nursing-Workforce-within-a-Global-SSL-Context-April-2024.pdf

26. EFN. (2022). *EFN Policy Statement on Safe Staffing Levels*. https://efn.eu/wp-content/uploads/2023/10/EFN-Policy-Statement-on-Safe-Staffing-Levels.pdf

27. EPSU Policy Brief. (2024). How the European Union can tackle the staffing crisis in health and social care. https://www.epsu.org/sites/default/files/article/files/EPSU%20Policy%20brief%20EU%20competences%20in%20staff%20shortages_EN.pdf

28. Fajarini, M., Setiawan, A., Sung, C., Chen, R., Liu, D., Lee, C., Niu, S., & Chou, K. (2024). Effects of advanced practice nurses on health-care costs, quality of care, and patient well-being: A meta-analysis of randomized controlled trials. *International Journal Of Nursing Studies*, *162*, 104953. https://doi.org/10.1016/j.ijnurstu.2024.104953

29. Fernández-García, E. (2021). Adecuación de la ratio paciente-enfermera y complejidad de los cuidados: un reto para las organizaciones sanitarias. *Enfermería Clínica*, *31*(6), 331–333. https://doi.org/10.1016/j.enfcli.2021.10.005

30. Global Nurses United (2025). Global Crisis, Collective Solution: Addressing the Worldwide Nurse Staffing Crisis. https://www.nationalnursesunited.org/sites/default/files/nnu/documents/0525_GNU_StaffingReport_English.pdf

31. Griffiths, P., Ball, J., Drennan, J., Dall'Ora, C., Jones, J., Maruotti, A., Pope, C., Saucedo, A. R., & Simon, M. (2016). Nurse staffing and patient outcomes: Strengths and limitations of the evidence to inform policy and practice. A review and discussion paper based on evidence reviewed for the National Institute for Health and Care Excellence Safe Staffing guideline development. *International Journal Of Nursing Studies*, *63*, 213–225. https://doi.org/10.1016/j.ijnurstu.2016.03.012

32. Griffiths P, Maruotti A, Recio Saucedo A, Redfern O C, Ball JE, Briggs J, Dall'Ora C, Schmidt, P E, Smith G B, and Missed Care Study Group (2019) Nurse staffing, nursing assistants and hospital mortality: retrospective longitudinal cohort study, BMJ Quality & Safety, 28(8), pp. 609–617.

33. Griffiths, P., Saville, C., Ball, J., Dall'Ora, C., Meredith, P., Turner, L., & Jones, J. (2023). Costs and cost-effectiveness of improved nurse staffing levels and skill mix in acute hospitals: A systematic review. International Journal of Nursing Studies, 104601.

34. Htay, M., & Whitehead, D. (2021). The effectiveness of the role of advanced nurse practitioners compared to physician-led or usual care: A systematic review. *International Journal Of Nursing Studies Advances*, *3*, 100034. https://doi.org/10.1016/j.ijnsa.2021.100034

35. Huhta J. & Mäntyranta, T., (2023, November 23). Minimum staffing level in 24-hour care for older people to remain unchanged until 1 January 2028. *Ministry of Social Affairs and Health*. https://stm.fi/-/iakkaiden-ymparivuorokautisen-hoidon-henkilostomitoitus-pysyy-nykyisellaan-1.1.2028-asti?languageId=en_US

36. Huws, D. W., Cashmore, D., Newcombe, R. G., Roberts, C., Vincent, J., & Elwyn, G. (2008). Impact of case management by advanced practice nurses in primary care on unplanned hospital admissions: A controlled intervention study. BMC Health Services Research, 8, 115.

37. ICN. (2023). *New ICN position statement highlights safe staffing and health workforce safety as priority areas for patient safety*.. ICN - International Council Of Nurses. https://www.icn.ch/news/new-icn-position-statement-highlights-safe-staffing-and-health-workforce-safety-priority-area

38. Jomaa, C., Dubois, C.-A., Caron, I., & Prud'Homme, A. (2022). Staffing, teamwork and scope of practice: Analysis of the association with patient safety in the context of rehabilitation. Journal of Advanced Nursing, 78, 2015–2029. https://doi.org/10.1111/jan.15112

39. Kroezen, M., Dussault, G., Craveiro, I., Dieleman, M., Jansen, C., Buchan, J., Barriball, L., Rafferty, A. M., Bremner, J., & Sermeus, W. (2015). Recruitment and retention of health professionals across Europe: A literature review and multiple case study research. Health Policy, 119(12), 1517– 1528.

40. Kwon, H., & Kim, J. (2024). A comparative analysis of nurses' reported number of patients and perceived appropriate number of patients in integrated nursing care services. *Nursing And Health Sciences*, *26*(3). https://doi.org/10.1111/nhs.13156

41. McHugh, M. D., Aiken, L. H., Sloane, D. M., Windsor, C., Douglas, C., & Yates, P. (2021). Effects of nurse-to-patient ratio legislation on nurse staffing and patient mortality, readmissions, and length of stay: a prospective study in a panel of hospitals. *The Lancet*, *397*(10288), 1905–1913. https://doi.org/10.1016/s0140-6736(21)00768-6

42. Morioka, N., Okubo, S., Moriwaki, M., & Hayashida, K. (2022). Evidence of the Association between Nurse Staffing Levels and Patient and Nurses' Outcomes in Acute Care Hospitals across Japan: A Scoping Review. *Healthcare*, *10*(6), 1052. https://doi.org/10.3390/healthcare10061052

43. Nurse Staffing Levels (Wales) Act 2016

44. Olley, R., Edwards, I., Avery, M., & Cooper, H. (2018). Systematic review of the evidence related to mandated nurse staffing ratios in acute hospitals. *Australian Health Review*, *43*(3), 288. https://doi.org/10.1071/ah16252

45. Phelan A and McCarthy S (2016) Missed Care: Community Nursing in Ireland. University College Dublin and the Irish Nurses and Midwives Organisation, Dublin https://www.inmo.ie/tempDocs/MissedCareReportweb.pdf

46. Queensland Nurses and Midwives' Union (QNMU) (2018). Ratios Save Lives Phase 2 Extending the care guarantee. Available at: https://www.qnmu.org.au/DocumentsFolder/Ratios%20website/Phase%202/Ratios%20Save%20Lives%20Phase%202%201017%20FINAL.pdf.

47. Registered Nurses' Association of Ontario 2018, Transforming long-term care to keep residents healthy and safe, https://rnao.ca/sites/rnao-ca/files/Transforming longterm care backgrounder.pdf

48. Roberts, A. (2023, 3 oktober). *The states with Nurse-Patient Ratio laws | NurseJournal.org*. NurseJournal.org. https://nursejournal.org/articles/nurse-patient-ratios/

49. Rosa, W. E., Fitzgerald, M., Davis, S., Farley, J. E., Khanyola, J., Kwong, J., Moreland, P. J., Rogers, M., Sibanda, B., & Turale, S. (2020). Leveraging nurse practitioner capacities to achieve global health for all: COVID- 19 and beyond. International Nursing Review, 67(4), 554– 559.

50. Rothgang, H., & Wagner, C. (2019). *Quantifizierung der Personalverbesserungen in der stationären Pflege im Zusammenhang mit der Umsetzung des Zweiten Pflegestärkungsgesetzes.* Bundesministerium für Gesundheit. https://www.bundesgesundheitsministerium.de/service/publikationen/ details/quantifizierung-der-

personalverbesserungen-in-der-stationaeren-pflege-im-zusammenhang-mit-der-umsetzung-des-zweiten-pflegestaerkungsgesetzes.html

51. Royal College of Nursing (2023) Impact of Staffing Levels on Safe and Effective Patient Care. Online: https://www.rcn.org.uk/Professional-Development/publications/impact-of-staffing-levels-on-safe-and-effective-patient-care-uk-pub-010-665
52. Royal College of Nursing (2024). *The nursing workforce in Scotland*. https://www.rcn.org.uk/-/media/Royal-College-Of-Nursing/Documents/Countries-and-regions/Scotland/2024/The-Nursing-Workforce-in-Scotland-2024.pdf
53. Shin, S., Park, J. D., & Shin, J. H. (2020). Improvement Plan of Nurse Staffing Standards in Korea. *Asian Nursing Research*, *14*(2), 57–65. https://doi.org/10.1016/j.anr.2020.03.004
54. Song, Y., Anderson, R. A., Corazzini, K. N., & Wu, B. (2014). Staff characteristics and care in Chinese nursing homes: A systematic literature review. *International Journal Of Nursing Sciences*, *1*(4), 423–436. https://doi.org/10.1016/j.ijnss.2014.10.003
55. Tait, D., Davis, D., Roche, M. A., & Paterson, C. (2024). Nurse/midwife-to-patient ratios: A scoping review. *Contemporary Nurse*, *60*(3), 257–269. https://doi.org/10.1080/10376178.2024.2318361
56. Twigg, D. E., Kutzer, Y., Jacob, E., & Seaman, K. (2019). A quantitative systematic review of the association between nurse skill mix and nursing-sensitive patient outcomes in the acute care setting. *Journal Of Advanced Nursing*, *75*(12), 3404–3423. https://doi.org/10.1111/jan.14194
57. WHO (2022) Ticking timebomb: Without immediate action, health and care workforce gaps in the European Region could spell disaster. Available at: https://www.who.int/europe/news/item/14-09-2022-ticking-timebomb--without-immediate-action--health-and-care-workforce-gaps-in-the-european-region-could-spell-disaster
58. WHO (2010) Code on Ethical Recruitment of Health Personnel. Available at: https://apps.who.int/gb/ebwha/pdf_files/WHA63/A63_R16-en.pdf
59. Van Den Heede, K., Bruyneel, L., Beeckmans, D., Boon, N., Bouckaert, N., Cornelis, J., Dossche, D., Van de Voorde, C., & Sermeus, W. (2020). *Safe nurse staffing levels in acute hospitals*. https://doi.org/10.57598/r325as
60. Ying, L., Fitzpatrick, J. M., Philippou, J., Huang, W., & Rafferty, A. M. (2020). The organisational context of nursing practice in hospitals in China and its relationship with quality of care, and patient and nurse outcomes: A mixed-methods review. *Journal Of Clinical Nursing*, *30*(1–2), 3–27. https://doi.org/10.1111/jocn.15486
61. Zaranko B, Sanford NJ, Kelly E, et al. 2023. Nurse staffing and inpatient mortality in the English National Health Service: a retrospective longitudinal study. BMJ Quality & Safety 32: 254-63 https://pubmed.ncbi.nlm.nih.gov/36167797/

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8. About EFN

The European Federation of Nurses Associations (EFN) was established in 1971. The EFN represents over 36 National Nurses Associations and its work has an effect on the daily work of 3 million nurses throughout the European Union and 6 million in Europe. The EFN is the independent voice of the nursing profession and its mission is to strengthen the status and practice of the profession of nursing for the benefit of the health of the citizens and the interests of nurses in the EU and Europe.

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