World Health Organization
European Region

Policies and approaches to promote safe nurse staffing

Technical brief

Nursing Action.

Funded by the European Union

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Abstract

Recognizing the critical contribution of the nursing profession to health systems, this technical brief sets out the case for investing in safe nurse staffing. It equips policy-makers with evidence for strategic and operational implementation of safe nurse staffing. Examples from countries participating in the European Union-funded Nursing Action showcase country experiences, alongside global evidence to inform and guide the implementation of safe nurse staffing policies and practices. Improving nurse staffing practices serves to enhance patient care while also contributing to the retention and recruitment of nurses across the WHO European Region.

Keywords

NURSING
MIDWIFERY
HEALTH WORKFORCE
POLICY

Document number:
WHO/EURO:2026-13146-52920-82459 (PDF)

Suggested citation. Policies and approaches to promote safe nurse staffing: technical brief. Copenhagen: WHO Regional Office for Europe; 2026.
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Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

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Acknowledgements

This work was carried out under the strategic and technical direction of Natasha Azzopardi Muscat, (Director of the Health Systems Division, WHO Regional Office for Europe) and Tomas Zapata (Regional Adviser for Health Human Resources and Service Delivery, WHO Regional Office for Europe).

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The WHO Regional Office for Europe would like to thank all the nationally nominated members and Focal Points of the Nursing Action Programme who took time to participate in interviews and follow-ups, filled in questionnaires and contributed to the content of this policy brief.

This briefing has benefited from valuable input from the WHO Barcelona Office for Health Systems Financing (Spain) and the member associations of the European Federation of Nurses Associations, with data collected by Manuel Ballotta (Policy Advisor, European Federation of Nurses Associations) and Paul De Raeve (Secretary General, European Federation of Nurses Associations).

Expert review and input was provided by: Linda Aiken (Professor of Nursing, University of Pennsylvania), James Buchan (Senior Visiting Fellow, The Health Foundation), Jonathan Drennan (Professor of Nursing, University College Dublin) and Walter Sermeus (Professor of Healthcare Management, KU Leuven).

The following individuals and associations also provided review and technical input: Karen Bjøro Caro (Vice President, European Forum of National Nursing and Midwifery Associations) and Walter de Caro (Board Member, European Forum of National Nursing and Midwifery Associations), Huub de Graaf (Director of European Affairs, European Nursing Student Association), and Tim Mitnik (prev. Director of European Affairs, European Nursing Student Association), and Adam Rogalewski (Policy Officer, European Federation of Public Service Unions), Triin Habicht (Senior Health Economist, WHO Barcelona Office for Health Systems Financing (Spain)) and Govin Permanand (Health Policy Analyst, WHO Regional Office for Europe), Karol Florek (Consultant, European Federation of Public Service Unions).

The briefing was made possible by funding from the European Commission and the support of the Directorate-General for Health and Food Safety. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

Abbreviations

COVID-19	coronavirus disease
CPD	Continuing Professional Development
EU	European Union
GCNO	Government Chief Nursing Officer
HEROES	HEalth woRkfOrce to meet health challEngeS
HSPA	Health Systems Performance Assessment
ICU	intensive care unit
NNA	national nurses' association

Background

Nursing is a safety-critical function that is fundamental to protecting population health. Nurses are not only providers of supportive care but deliver continuous clinical surveillance, detect early signs of deterioration, interpret complex information and intervene to prevent harm before adverse events occur. Their work involves constant surveillance of patients, risk assessment, decision-making, and coordination across different parts of the health and care system, often in environments of high acuity, social complexity and limited resources *(1,2)*.

Evidence consistently shows that when nurse staffing levels are reduced in comparison to workloads, patient safety and quality of care is compromised, missed opportunities for care increase, and errors rise in frequency and health outcomes worsen. Safe nurse staffing is therefore not a "nice to have" but rather a "must have," and a core patient safety and quality-of-care requirement.

The urgency of addressing safe nurse staffing has intensified; persistent nurse shortages, an ageing nursing workforce, increasing care complexity and the long-term impacts of the coronavirus disease (COVID-19) pandemic have increased demand for health care, and exposed structural weaknesses in workforce planning and deployment. These challenges were highlighted in the WHO Regional Office for Europe report on the mental health of nurses and doctors *(3)* and the WHO *State of the World's Nursing Report 2025 (4)*, both of which point to unsafe staffing and poor working conditions as key risks to workforce availability and long-term sustainability.

Recognizing the need to protect this important frontline of their health systems, all 53 Member States of the WHO European Region endorsed the *Framework for Action on the health and care workforce in the WHO European Region 2023–2030* during the Seventy-third Regional Committee for Europe *(5)*. In addition to the recently renewed *Global strategic directions for nursing and midwifery 2021–2025 (6)*, which Member States endorsed during the Seventy-eighth World Health Assembly in May 2025, the two international commitments place sharp focus on the retention and recruitment of the WHO European Region's 11.2 million nurses. The EU4Health-funded "Nursing Action," led by the WHO Regional Office for Europe, represents an important opportunity to support European Union (EU) Member States to act on these commitments by implementing evidence-informed retention and recruitment policies. As of January 2026, 21 countries in the EU have officially nominated national Focal Points to work directly with the WHO Regional Office for Europe and social partners to improve recruitment and retention strategies in their countries. This work involves in-depth data analysis and knowledge sharing between 19 of these 21 countries *(7)*.

This policy brief is one of several deliverables of the Nursing Action and focuses specifically on the Nursing Action countries' experiences in addressing safe nurse staffing challenges. It draws on international evidence and puts forward policy directions that can be applied beyond the Nursing Action countries.

The WHO Regional Office for Europe and the European associations involved in the Nursing Action have also aligned their efforts with several other complementary initiatives led by the European Commission, including the Expert Group on Health Systems Performance Assessment (HSPA)'s work on safe staffing levels and the HEROES (HEalth woRkfOrce to meet health challEngeS) Joint Action on health workforce planning and forecasting *(8)*. While the Expert Group on HSPA is focusing on safe staffing level approaches across the EU, examining experiences of both fixed and flexible models at system and sectoral levels for all health-care professionals, the Nursing Action is specifically focused on safe nurse staffing in the Nursing Action countries while drawing on evidence more widely.

Purpose and scope

This policy brief aims to present information from the Nursing Action countries, alongside global evidence and case studies, to support policy-makers and health system leaders in strengthening evidence-informed safe nurse staffing approaches. The insights presented can also be relevant to the wider WHO European Region when adapted to local contexts.

The brief does not propose a single model of good practice. Instead, it describes current safe nurse staffing practices, policy approaches and implementation experiences. These insights have informed the development of a framework that is presented in the brief (see Fig. 1). The framework spans across two domains (strategic and operational) within which are key dimensions that are required to ensure safe nurse staffing. More broadly, enablers are identified that set the foundations for implementing safe nurse staffing, including working conditions and workforce planning, education and training, professional autonomy and leadership.

The brief uses the term "safe nurse staffing" to refer to staffing arrangements that may or may not engage a range of nursing personnel, recognizing that the roles of nurses are changing rapidly across the WHO European Region. In some countries, safe nurse staffing approaches apply exclusively to nurses that are educated to the standards of EU Directive 2005/36/EC (updated by Directive 2013/55/EU and the new Directive 2024/782) *(9)*, while in others they encompass a wider group of nursing personnel, including the International Standard Classification of Occupation-defined associate nursing professionals (that is, nursing associate professionals that generally work under the supervision of, and in support of, the implementation of health-care, treatment and referral plans established by medical, nursing and other health personnel, according to ISCO-08 code: 3221), specialists nurses and advanced practice nurses with Master's- or Doctoral-level education. By unpacking the strategic and operational policies that facilitate safe nurse staffing and the key strategic enablers, this brief remains relevant and informative across diverse contexts, and relevant to the nursing workforce at large that is responsible for ensuring the safety of patient care (Box 1).

While recognizing that the academic evidence is predominantly focused on hospital settings, this briefing aims to provide information that is pertinent to all settings where safe nurse staffing is essential to the functioning of service delivery. This includes in hospitals, long-term care facilities, and mental health and community settings.

The methodology for this report can be found in Annex 1.

Box 1. Nursing personnel

The distinction between nurses and supporting roles, and the definitions that are used in this briefing, are outlined below.

Nurse (regulated/registered role):

- registered nurse: aligned with EU Directive 2005/36/EC *(9)*
- specialist nurse: usually regulated and formally recognized within a defined clinical field; and
- advanced practice nurse: usually regulated, with advanced education and an expanded scope of practice.

Support workers/assistant/associate roles:

- the titles and regulatory statuses of support workers and associate nursing roles vary by country, and depend on national workforce profiles and legal frameworks;
- where these roles exist, they should support – but not substitute for – regulated/registered nursing practice; and
- typically, these roles operate under nurse delegation and supervision, limited to clearly defined activities within an explicit limited scope of practice.

Defining safe nurse staffing

Throughout this brief safe nurse staffing and patient safety are defined as outlined below.

- "Safe nurse staffing" refers to the number and mix of staff required to deliver safe care in a specified workplace or environment. The availability of appropriately educated and trained nurses is associated with better patient outcomes, including lower mortality rates *(10)*. Safe nurse staffing operates along a continuum from strategic to operational levels, which are distinct but inherently interconnected and mutually reinforcing.

    - "Strategic safe nurse staffing" refers to macro-, system-level decisions that shape the supply, distribution and sustainability of the nursing workforce. This includes legislation and regulation, workforce planning and forecasting, education and training capacity, financing mechanisms, governance arrangements, and monitoring and evaluation. These decisions are typically taken at national, regional or municipal levels of government.

    - "Operational safe nurse staffing" refers to the meso-/micro-, facility-level decisions undertaken to shape the day-to-day organization and deployment of nurses within health and care settings. This includes shift allocation, workload assessment, skill-mix decisions and real-time adjustments to staffing based on patient needs. Operational staffing is most often led by senior nurses at facility or unit level.

- "Patient safety" is defined as "the absence of preventable harm to a patient and reduction of risk of unnecessary harm associated with health care to an acceptable minimum" *(11)*. It must be an integral part of quality-of-care policies and strategies. It is well documented that unsafe staffing can lead to patient harm, and it is imperative that a safe health system is one that adopts all necessary measures to avoid and reduce harm through organized activities, including having adequate numbers of staff to contribute to excellent patient outcomes and retention of dedicated clinicians *(12,13)*.

Why safe nurse staffing matters

Nurses constitute the core of the health workforce both globally and in the EU, representing on average 55.9% of the active health workforce of the latter, the majority of whom are women *(14)*. Safe nurse staffing is a foundational requirement for high-quality, equitable, and safe health and social care. Evidence – particularly with regards to Bachelor's degree-educated nurses – has shown that safe nurse staffing is directly linked to patient safety, nurse well-being and health system performance *(15)*.

Impact on patient safety and outcomes

Over two decades of scientific evidence consistently shows that safe nurse staffing is critical for patient safety and quality of care, particularly because it applies to Bachelor's degree-educated nurses given their training to triangulate the clinical symptoms and social needs of their patients *(16)*. When sufficient numbers of appropriately educated and skilled nurses are available, risks such as medication errors, pressure injuries and hospital-acquired infections are significantly reduced *(17)*. Conversely, understaffing of nurses puts patients at serious risk, especially in high-acuity settings. Research shows that for every additional patient added to a nurse's workload, the likelihood of surgical patients dying increases by 7% *(18–20)*. These findings underscore that safe nurse staffing is a fundamental requirement to prevent harm and ensure positive health outcomes. Often, to counter understaffing, temporary staff or new positions are implemented rapidly without thorough and informed workforce planning. However, evidence suggests these too impact patient safety and quality of care negatively because they can disrupt the important process of relational care with patients, care continuity, can be affected by a lack of familiarity with local protocols and potentially increase poor patient outcomes such as falls *(21)*.

Missed nursing care

Insufficient nurse staffing often results in "missed care" *(20)*, which is an early measure of patient safety and outcomes. Missed care refers to delays, errors or omissions of essential nursing tasks – such as administering medications, patient surveillance, patient education or communication – that are critical for patient safety and strongly associated with nurses' intentions to leave *(22–25)*. Research highlights that heavy workloads, long shifts, inadequate skill mix where registered nurses are substituted with lower-qualified staff, communication tensions between health professionals, fluctuating workloads across shifts and insufficient peer support significantly increase the likelihood of missed care, making it an early warning sign of inadequate staffing *(26,27)*.

Missed care is not just a symptom of understaffing, it is a predictor of poor patient outcomes *(28)*. Understaffing often leads to extended shifts, overtime and insufficient rest for nurses, which contributes to fatigue and burnout *(29)*. This is not just bad for staff; it directly compromises patient safety *(30)*. Studies show that poor working conditions, like 12-hour shifts or longer, are linked to higher error rates, job dissatisfaction and worse retention. Simply put, safe nurse staffing improves working conditions *(31)*, which in turn ensures safer care.

Negative outcomes for staff well-being and retention

A healthy, motivated nursing workforce is essential for delivering high-quality care. Conversely, overwork, burnout and insufficient managerial support are major drivers of nurses leaving their jobs or the profession, or reducing their working hours *(32)*. Evidence from the recent WHO Regional Office for Europe report on the mental health of nurses and doctors shows that longer working hours and frequent night shifts significantly increase the risk of experiencing mental health difficulties and the intention to leave *(3)*.

Factoring variation in safe nurse staffing

Variation plays an important role in managing safe nurse staffing not just regarding the variation in patient acuity and care needs, but also the variation in competencies and expertise across the workforce and different jurisdictions. If variation is not taken into consideration this significantly threatens both patient safety and equity of access in health care. When nurse staffing varies widely from one region or facility to another, some patients may receive care from an adequate number of nurses with the right skills for their specific needs, while patients located in underserviced areas may not *(33)*. Not taking this variation into consideration may result in insufficient staffing that leads to delays in care, increased risk of medical errors and poorer patient outcomes, especially for those with complex conditions.

Equally important is the match between nurses' competencies and patient needs: even if a unit appears "fully staffed" in terms of numbers, a skills deficit may remain, reflecting how the absence of nurses with the appropriate specialization or competencies can compromise care quality *(34)*. Such disparities in both the quantity and qualifications of nursing staff contribute to systemic inequities, where patients in under-resourced areas face greater safety risks and reduced access to high-quality care compared with those in better-staffed jurisdictions *(35)*. This is of particular concern in areas such as long-term care, mental health and primary health care.

What are the enablers of safe nurse staffing?

The *Global strategic directions for nursing and midwifery 2021–2025 (6)*, endorsed by all 194 Member States during the Seventy-eighth World Health Assembly in Geneva in May 2025, outlined four strategic directions for strengthening nursing and midwifery capacity. The critical relevance of the four strategic directions (jobs, education, service delivery and leadership) and how they enable the safe nurse staffing agenda are outlined in this section.

Working conditions

Ensuring safe nurse staffing requires not only adequate supply of nurses but also employment conditions that foster retention and attraction. Building health system trust and resilience requires a strong nursing workforce. This means ensuring that enough nurses are trained in line with EU Directive 2013/55/EU *(36)* and that they can deliver care in safe and supportive working environments *(37)*. Unsafe conditions and limited career progression continue to drive attrition and migration of the nursing workforce, threatening nurses' health and well-being across all types of care environment, which in turn threatens service continuity *(3)*. The WHO European Region *Mental Health of Nurses and Doctors survey in the European Union, Iceland and Norway* report showed clearly that reporting depression was associated with taking more sick leave and a greater intention to leave among nurses and doctors. It also showed a range of workplace protective factors are strongly associated with lower depression and anxiety, including the assurance of social support from colleagues and supervisors, greater influence over work and better work–life balance, and workplace support structures.

Strengthening employment conditions – including fair remuneration, career pathways and supportive environments – is therefore essential to maintain a sustainable workforce and uphold quality care standards. Application of the United Nations Economic Commission for Europe Quality of Employment Framework can guide Member States in addressing different factors comprehensively, including ensuring decent work, social protection, and equitable opportunities for nurses as part of broader labour market and health system resilience strategies *(38)*.

Workforce planning

Strategic workforce planning requires addressing distribution, sustainability and the quality of employment. Workforce information systems that inform decisions on where nurses are needed most, combined with policies that ensure safe working conditions, are key enablers for the retention and attraction of nursing workforce. Aligning education and training with EU Directive 2013/55/EU *(36)* ensures that general care nurses are equipped with the competencies required for modern health systems, while planning mechanisms must anticipate future needs and mitigate risks of shortages. By integrating workforce intelligence with measures that guarantee safety and well-being at work, health systems can secure continuity of care and strengthen trust in nursing services.

Nursing education, training and research

Securing strong foundations is important during nurses' initial education. EU Directive 2005/36/EC *(9)* defines the minimum training requirements for general nurses responsible for general care (such as length of study, theoretical knowledge and clinical practice), and ensures the foundations of critical decision-making and nursing knowledge required to deliver continuous clinical surveillance, and the capacity to detect early signs of deterioration, interpret complex information and intervene to prevent harm before adverse events occur, are in place.

Establishing strong principles in nursing research and evidence, which are widely recognized and incorporated into core curricula both during the initial training of nurses and during their continuing professional development (CPD), supports both the strategic and operational domains of safe nurse staffing policy by creating a strong understanding among nurses and leadership of the impact of nurses' work. The capacity of the educational system also involves adequate numbers of educators, mentors and high-quality clinical placements. Without protected time and resourcing of clinical supervision, placement capacity becomes a bottleneck, student experience deteriorates and attrition rises, reinforcing shortages.

Nursing research supports greater understanding of the impact of nursing care on patient outcomes (infection rates, mortality, length of stay and readmission), the quality of care and patient reported outcomes, and also establishes strong foundations for the development of appropriate tools that can help with patient care, improving workload management and measurement, real-time patient needs assessment and workforce planning to manage staffing dynamically. This is particularly relevant as countries focus on the incorporation of digital technologies and artificial intelligence into their health-care systems.

Access to quality CPD ensures that nurses maintain, over the course of their careers, the competencies required to deliver safe, high-quality care and are equipped with the competencies relevant to their workplace that are required to undertake planning and decision-making. CPD that is relevant to nurses' work is focused on safe nurse staffing, and is aligned with structured career pathways and promotional opportunities, which can strengthen nurses' confidence and autonomy in addressing safe nurse staffing challenges. It also supports the development of nursing leadership capacity. When nurses have greater autonomy, professional leadership and are supported in their professional development, organizations experience improved engagement, stronger clinical expertise and reduced turnover, and patients experience better outcomes *(4)*. Employers play a prominent role in supporting nurses to undertake continuing education and training throughout their careers.

Service delivery and nursing autonomy

Strong education systems and lifelong learning, and also supportive regulation, can facilitate timely clinical decision-making based on evidence, professional knowledge and expertise, thereby reducing unnecessary delays in care and optimizing service delivery across settings. Emerging nursing professionalism or autonomy can therefore support role optimization and expansion as needed, to respond to patient needs. This is especially relevant to achieving universal health coverage, improving access to care in underserved and rural areas, and managing chronic disease and population health needs.

Leadership

The importance of leadership that can ensure the correct frameworks around safe nurse staffing policy comes with autonomy, and is important for policy development, implementation and delivery. At least three kinds of leadership and authority are important for safe nurse staffing: Government Chief Nursing Officers (GCNOs); senior nurses; and national nurses' associations (NNAs), employers (organizations) and trade unions.

GCNOs

These are mandated by ministries of health to oversee the regulation of working conditions and the education of the nursing and midwifery workforce. They are ideally placed to lead national, cohesive approaches to safe nurse staffing, and to ensure cohesion with broader health and social care policies. When given the appropriate resources, mandates and authority, GCNOs can have significant influence on the development of national nurse and midwifery capacities. Over 52% of GCNOs state that they hold responsibility for such activities *(39)*.

GCNOs also support intersectoral work and contribute to the shared governance that is associated with safe nurse staffing policy and governance. Although GCNOs and senior leaders have reported that regular intersectoral work is part of their portfolios *(39)*, including with ministries of social affairs and education, fewer have reported working with ministries of labour/employment, social security and/or finance. This is concerning, considering the breadth and complexity of staffing policy and the need for cross-sector collaboration beyond the health sector.

Senior nurses

These have the authority to make decisions on workforce planning in their institutions or services, and access to senior decision-making and other colleagues. They also play key roles in mitigating risks by securing supportive environments, ensuring access to continuing education and promoting work–life balance *(3)*, provided they have access to the relevant resources. Research confirms that this leadership is not only critical for improving safe nurse staffing but is also one of the most effective ways to reduce burnout among nurses across Europe *(40,41)*.

Confidence in adopting innovative and flexible approaches, such as managing staffing profile changes as determined by patient needs, is critical, and senior nurses are well placed for designing and operating staffing systems, with the authority to make real-time decisions based on professional judgement and the use of an evidence-based approach to determine safe nurse staffing levels *(7)*. By prioritizing safety and well-being in staffing decisions, senior nurses not only protect patients but also strengthen workforce sustainability. Effective leadership is key in making it happen.

Senior nurses who work with other management and executives of facilities, settings and services are also vital for ensuring safe nurse staffing across their jurisdictions through clinical leadership, safeguarding patient safety and quality of care, and optimizing service delivery. They also make important decisions for their nursing staff with regards to the continuing education of nurses, work environments, evaluation and monitoring, and performance management.

NNAs, employers and trade unions

NNAs, employers and trade unions play a pivotal role in shaping safe nurse staffing policies that reflect frontline realities. Their engagement – involving advocacy, policy development and implementation – ensures that staffing standards are fit for purpose and grounded in practice. NNAs contribute technical expertise to government consultations, advisory councils and legislative processes, influencing the design of regulations and frameworks that safeguard patient safety and ensure nursing workforce sustainability, which is essential for aligning safe staffing into national health strategies and into professional standards *(7)*.

Employers' organizations and trade unions complement the efforts by addressing both the macro- and workplace-level determinants of staffing. At the national level, trade unions advocate for fair labour market policies and participate in social dialogue mechanisms (for example, economic and social committees, to ensure that staffing reforms consider broader workforce conditions). At the facility level, they work through workplace representation and work councils to operationalize safe staffing standards, monitor compliance and negotiate collective bargaining agreements. Employers have a direct responsibility to ensure supportive environments, provide access to continuing education, and implement staffing systems that consider patient safety and staff retention and attraction *(42,43)*.

Implementing safe nurse staffing

Safe nurse staffing is implemented based on a series of policies that take place along a continuum of two domains: the "strategic" and "operational" domains (Fig. 1). While distinct, they are inherently interconnected and mutually reinforcing.

The strategic domain refers to macro- and/or system-level policies that support safe nurse staffing. This includes governance arrangements, regulation, financing, education, and monitoring and evaluation. These policies are typically implemented at national, regional or municipal levels of government. Strategic safe nurse staffing policies benefit from oversight by GCNOs.

The operational domain refers to meso-/micro- and/or facility-level policies that are pursued day to day in organizations, and the deployment of nurses within health and care settings. This includes shift structure and allocation, workload and workflow assessment, skill-mix decisions, real-time adjustments to staffing based on patient needs and professional judgement. Operational staffing benefits from oversight by senior nurses in facilities, services or settings.

Fig. 1. Framework for the strategic and operational domains for safe nurse staffing

Note: Risk and protective factors are not exhaustive, and are based on exposures measured through the *Mental Health of Nurses and Doctors survey in the European Union, Iceland and Norway (3).*

Effective implementation of safe nurse staffing approaches depends on continuous feedback between these two domains of decision-making. Operational realities must inform strategic decisions to ensure

policies are grounded in practice, while strategic direction sets the policy and regulatory frameworks, resources and expectations that enable safe staffing to be implemented locally.

Strategic safe nurse staffing domain

Strategic safe nurse staffing refers to the macro-level policies that enable safe nurse staffing. Supporting dimensions include governance, regulation, financing, and monitoring and evaluation. Strategic safe nurse staffing tends to happen in conjunction with national nurse workforce planning and forecasting of future population health needs, matching those needs with the numbers, skills and distributions of nurses, and setting policies on nurse education, scope of practice and leadership.

It requires a health labour market lens, reaching beyond the numbers of nurses in a given country to include active investment in education, ensuring that human resources for health information systems are in place, and facilitating leadership and autonomy (or career pathways) and supportive working conditions, so that supply, skill mix and geographical distribution meet service demands *(44)*. To fully support safe nurse staffing, there is a requirement to measure the impact of safe staffing on patient outcomes, workforce stabilization and economic outcomes.

Approaches for calculating safe nurse staffing levels

Across the countries participating in the Nursing Action, strategic safe nurse staffing is determined differently and implemented in different ways. This is attributed to differences in regulation. All approaches have different policy relevance and implementation considerations, which are outlined in Table 1.

Table 1. Summary of approaches for calculating safe nurse staffing levels

Safe nurse staffing approaches	Core principles	Description	Policy relevance	Implementation considerations
Benchmarking	Standardization	This approach uses expert and evidence-based judgements that are set for comparable settings. This approach focuses on the number of nurses required but does not involve a real-time assessment of patient needs.	Provides standardized comparisons with similar units or settings. Relatively simple to implement and interpret.	Ignores specific patient needs and situational nuances. May perpetuate outdated or inadequate practices if benchmarks are flawed. Can be reduced by financial pressures. Assumes current situation is acceptable. Assumes standard data and analysis are routinely available.

Table 1 contd.

Safe nurse staffing approaches	Core principles	Description	Policy relevance	Implementation considerations
Volume-based	Minimum coverage	Refers to approaches that set minimum nurse staffing levels per number of patients *(45)*. The focus is less on patient needs than on the number of patients. For example, a patient–nurse ratio may be set at a local, regional or national level *(46)*. Tools to aid this approach may give weighting to patients dependent on an electronic scoring system, which would then indicate the number of staff required on each shift.	Straightforward and easy to calculate (for example, patient–nurse ratios). Useful for setting minimum staffing thresholds.	Fails to account for patient complexity or workload variability. Overly simplistic for high-acuity or specialized care settings.
Multifactorial indicator	Complexity-based planning	This approach ultimately assigns patients into categories, from which scoring across several factors determines nurse staffing levels *(47)*. Multifactorial approaches can also include regression models based on data such as time, task type or patient classifications.	Considers multiple factors, such as patient needs and task complexity, for more accurate calculation of staffing requirements. Tailored to workload demands and patient characteristics.	Requires significant data collection and analysis, training of staff and investment in systems, which can be time and resource intensive. May involve complex methodologies that are difficult to implement.
Timed-task	Time allocation	In this approach, patient care is assigned to categories based only on factors that relate to the time required to deliver patient care *(48,49)*. This can include broad assessments of the patients' conditions as well as specific tasks that are required to provide care *(50)*.	Focuses on specific tasks and time required for care, enabling precise staffing allocation. Useful for task-oriented or predictable care environments.	May neglect unanticipated needs or broader patient requirements. Risks overly rigid planning that does not allow for flexibility. Underestimates workloads. High risk for unpredictable environments like health care.
Patient/acuity-based	Needs-based care	Staffing based on nursing workload measured through a system of quantifying patients' individual needs for care *(51)*. For example, units or specialisms with high numbers of patients with higher acuity would be allocated more nurses. This often relies on patient scoring tools *(52)*, including electronic records.	Dynamically adjusts staffing based on patient complexity and care intensity. Supports resource allocation to high-acuity patients or units.	Data collection and scoring can be time-consuming and resource heavy, and it usually requires a supporting information technology system and training of staff *(53)*. Requires access to reliable patient data and sometimes costly electronic tools.

Table 1 contd.

Safe nurse staffing approaches	Core principles	Description	Policy relevance	Implementation considerations
Budget-based staffing	Cost control	Staffing based on a predetermined budget based on the number of nursing hours per patient day. It can be based on the number of hours per patient day at a point in time irrespective of real time.	Aligns staffing decisions with financial constraints, ensuring budget compliance. Provides predictability in workforce planning.	Ignores patient needs and workload, prioritizing cost over care. This can result in chronic understaffing and negative patient outcomes.
Team-based	Skill optimization	This approach places staff into teams based on their skill set *(48)* to allow for those with specific competencies and expertise to care for patients requiring that skill. Other team staff members can then perform care where it does not require a specific skill level *(54)*. This does place emphasis on experienced staff and often requires them to move across units and other clinical areas where staff do not have their skills. This model may take into consideration broader membership of the multidisciplinary team.	Leverages diverse skill sets to optimize care delivery. Enhances collaboration and flexibility among staff.	Requires careful planning to balance skill mix and team distribution. If not used in conjunction with a patient/acuity-based model, it may provide flexibility in staff allocation but not with the ability to respond to changing patient demand. Relies heavily on experienced staff, which may strain resources. Potential for risky over-reliance on lower-level personnel *(55)*.

Notes: Levels of care considered are national, regional and local (may be further defined by sector and facility type, such as hospitals: Bulgaria and Sweden were not able to provide information at the time of writing this report.

Levels of care considered are national, regional and local (may be further defined by sector and facility type, such as hospitals).

Across the Nursing Action countries there are a range of approaches to applying safe nurse staffing levels. Some countries use a blend of multiple approaches, as shown in Table 2. Out of the total of the 19 countries represented, 32% use one approach, 42% of countries use two approaches, and 26% use three or more approaches. The most used approaches are volume-based and patient/acuity-based.

Table 2. Approaches used in the Nursing Action countries

Country[a]	Approach							
	Benchmarking	Volume-based	Multifactorial indicator	Timed-task	Patient/acuity-based	Budget-based	Team-based	Other
Cyprus	—	x	—	—	x	—	—	—
Czechia	—	x	—	—	x	—	x	x
Estonia	—	x	—	x	—	x	—	—
Finland	—	—	—	—	—	—	—	x

Table 2 contd.

Country[a]	Approach							
	Benchmarking	Volume-based	Multifactorial indicator	Timed-task	Patient/acuity-based	Budget-based	Team-based	Other
France	—	x	—	—	x	—	—	—
Greece	—	—	x	—	x	x	x	—
Hungary	—	—	—	—	—	x	—	—
Ireland	x	—	—	—	x	—	—	—
Italy	—	x	—	x	x	x	—	—
Latvia	x	—	—	—	—	—	—	x
Lithuania	x	x	x	x	x	—	x	—
Malta[b]	—	x	—	x	—	—	—	—
Netherlands (Kingdom of the)	—	—	—	—	—	—	—	x
Norway	—	—	—	—	x	—	—	x
Poland	—	x	—	—	x	—	—	—
Portugal	—	—	—	—	x	—	x	—
Romania	—	x	x	—	—	—	—	—
Slovenia	—	—	—	—	x	—	—	—
Spain[c]	—	—	—	—	x	—	—	—

Notes: **X** stands for 'approach utilized in country'

[a] Bulgaria and Sweden were not able to provide information at the time of writing this report.

[b] Not systematically implemented.

[c] Spain is currently developing safe nurse staffing regulation.

Table 3 shows that countries also vary in terms of the levels at which they apply these safe nurse staffing approaches. Some countries determine the approaches at national level ($n = 8$) and some countries ($n = 3$) determine the approaches at local/regional level, some also utilize a blend of national and regional approaches ($n = 8$). Differences also exist in terms of approaches being defined by the ownership of health facilities.

Table 3. Summary of Nursing Action countries' approaches to staffing

Country[a]	Approach to staffing	Level of application (geographical and care setting[b])
Cyprus	Volume-based, patient/acuity-based	National: private hospitals have mandated ratios from the Government
Czechia	Mixed methods: volume-based, patient/acuity-based, team-based	National–hospital-level staffing levels are determined at hospital level based on professional judgement and internal guidelines
Estonia	Volume-based, timed-task, budget-based	National: requirements for hospital types and application of it via health service costing (prices)

Table 3 contd.

Country[a]	Approach to staffing	Level of application (geographical and care setting[b])
Finland	Based on the Resident Assessment Instrument system	National/regional: health and social services; elderly care facilities
France	Volume-based, patient/acuity-based	National/regional: hospital level
Greece	Patient/acuity-based, multifactorial indicator	Local: determined at hospital facility level
Hungary	Budget-based	National/regional: standards for specific settings
Ireland	Patient/acuity-based, benchmarking	National
Italy	Budget-based, patient/acuity-based, volume-based	National: standards for specific settings Regional/company: set standards for other specialties
Latvia	Benchmarking, other	National and hospital-based definition of the minimum number of specialists that must be available for hospital services
Lithuania	Multifactorial indicator, benchmarking, team-based, volume-based, timed-task, patient/acuity-based	National
Malta	Volume-based, timed-task	Local: determined at hospital level
Netherlands (Kingdom of the)	Other	Local: determined by provider/sector
Norway	Other: qualitative criterion (a soundness requirement, incorporates patient/acuity)	National/regional
Poland	Volume-based, patient/acuity-based	National: hospital level
Portugal	Patient/acuity-based, team-based	National: hospital and primary care levels Regional/company: public, private, cooperative, hospitals, social sector institutions, prison health and military services
Romania	Multifactorial indicator, volume-based	National
Slovenia	Patient/acuity-based	National
Spain	Under development, patient/acuity-based	National/regional

[a] Bulgaria and Sweden were not able to provide information at the time of writing this report.

[b] Levels of care considered are national, regional and local (may be further defined by sector and facility type, e.g. hospitals).

Benchmarking

In Ireland, benchmarking is embedded within the phased national frameworks for safe nurse staffing and skill mix, where staffing levels and skill-mix standards are tested through pilots in acute, emergency and older persons' care settings. This evidence-based benchmarking is applied not as a fixed ratio but as part of a dynamic methodology (for example, Nursing Hours per Patient Day in acute settings and Nursing Hours per Patient Presentation in emergency departments aligned with acuity and dependency measures), which makes it more responsive to patient needs than traditional fixed ratios. Italy's Ministerial Decree 70/2015 *(56)* also reflects benchmarking principles, by setting structural standards. However, this approach has been significantly strenthed by the Interministerial Decree of 24 January 2023 *(57)*, which formalized the methodology for determining National Health Service personnel needs based on production factors and standard times. This evolution moves the Italian model towards a more detailed national framework regarding staffing requirements. These examples illustrate how benchmarking can provide clarity in specialized contexts, but they also highlight the risk of uneven adoption: Ireland's benchmarking is embedded in policy development, while Italy's remains more structural, leaving staffing ratios to regional discretion.

Volume-based approach

Cyprus applies volume-based ratios in the private sector, where the Private Hospitals Law (90(I)/2001) *(58)* mandates minimum patient–nurse ratios per unit, making staffing a licensing condition. Czechia also uses volume-based calculations in legal documents, though hospitals often adapt them locally. Poland demonstrates a highly codified volume-based system, with national legislation requiring minimum patient–nurse ratios and detailed parameters such as patient categories and daily nursing time. Compliance is enforced through ministerial regulations and failure to meet standards can lead to the termination of contracts with the National Health Fund. These cases show how volume-based approaches are attractive for regulation and enforcement, but they risk rigidity: Cyprus' dual system leaves public hospitals without binding ratios, while Poland's system enforces compliance but may not reflect acuity.

Multifactorial indicator approach

Greece applies multifactorial indicators in high-dependency units, combining patient acuity, activity levels and case-mix complexity to determine staffing. Lithuania exemplifies a sophisticated multifactorial model, using a national forecasting and planning system that integrates workload, attrition, task shifting and demographic indicators, supported by EU projects like HEROES. This model is being enhanced into a real-time competence platform, showing how multifactorial approaches can evolve into dynamic workforce planning tools. Portugal's Regulation No. 743/2019 from the *Ordem dos Enfermeiros* [Order of Nurses] *(59)* also reflects a multifactorial approach, incorporating demographic profiles, institutional architecture and skills into safe staffing calculations. These examples highlight the analytical strengths of multifactorial models, and also their dependence on strong data infrastructure and governance capacity, which vary across countries.

Timed-task approach

At the time of writing, some countries are piloting timed-task staffing in selected wards, triangulating it with nurse-to-bed ratios and patient-acuity models to refine calculations. This reflects an attempt to move beyond static ratios by quantifying the time required for specific patient care tasks. Having these pilots showcases the potential of timed-task models to provide granular workload insights, but they also reveal limitations: Malta's pilot demonstrates the need for triangulation to validate results, while Norway's reliance on managerial discretion risks inconsistency across municipalities and hospitals.

Patient/acuity-based approach

Cyprus applies patient/acuity-based planning in public hospitals, where the state health services organization allocates staff according to patient needs, though without binding legislation (57). Czechia uses patient acuity for shift planning, particularly in ICUs, where teams are allocated based on case severity. Ireland has institutionalized acuity-based staffing through national frameworks *(60)*, using nursing hours per patient day and acuity tools like TrendCare *(61)* to calculate staffing, with skill-mix ratios embedded in policy. These examples show acuity-based models' responsiveness and alignment with patient safety, but they also highlight challenges: Cyprus' model remains policy-driven without legal enforcement, Czechia's is highly dependent on local discretion and Ireland's is resource-intensive but evidence-based. Up-to-date data and human resources are key for success *(62,63)*. The Ministry of Health of Spain, within the framework of the Technical Support Instrument project funded by the European Commission and with technical assistance provided by WHO, is working on the development of a patient classification system based on individual complexity and the intensity of care required, with the aim of adapting nursing workloads to patients' needs.

Budget-based approach

In Estonia, staffing requirements are taken into account at the health services price-setting level, and this automatically translates into provider-level contract amounts (provider level) and budgets (system level) (for example, in the list of health-care services, the price of a bed per 24 hours includes an estimated nursing workload per patient). Greece relies heavily on budget-based staffing in general wards, where fixed public funding dictates nurse allocation, despite acuity-based models in ICUs. Hungary illustrates the rigidity of budget-based staffing, where ministerial decrees mandate staff numbers per bed, but hospitals operate within fixed wage budgets, limiting flexibility. Italy applies budget-based planning at regional and company levels, with staffing tied to National Health Service funding allocations, although national decrees set minimum standards for specific settings. These examples show how budget-based models prioritize cost control but often compromise patient safety and staff well-being, with Greece's budget ceilings and Hungary's rigid decrees particularly constraining responsiveness.

Team-based approaches

Cyprus recognizes staff mix in its policies, with health carers introduced into teams alongside nurses, although the methodology remains under development. Czechia uses team-based models in ICUs, where nurses of different levels are allocated according to patient acuity, reflecting a skill-mix approach. Lithuania has piloted team-based approaches through the Empowering EU Health Policies on Task SHIfting (TaSHI) project (April 2021–March 2024) *(64)* that piloted team-based, task-shifting approaches in five countries, including Lithuania, focusing on task shifting and multidisciplinary teams in family medicine, embedding nurses within broader primary care teams. These examples show the strengths of team-based approaches in optimizing skill use and fostering collaboration, but they also depend heavily on clear role delineation and leadership capacity, which vary across contexts.

Other approaches

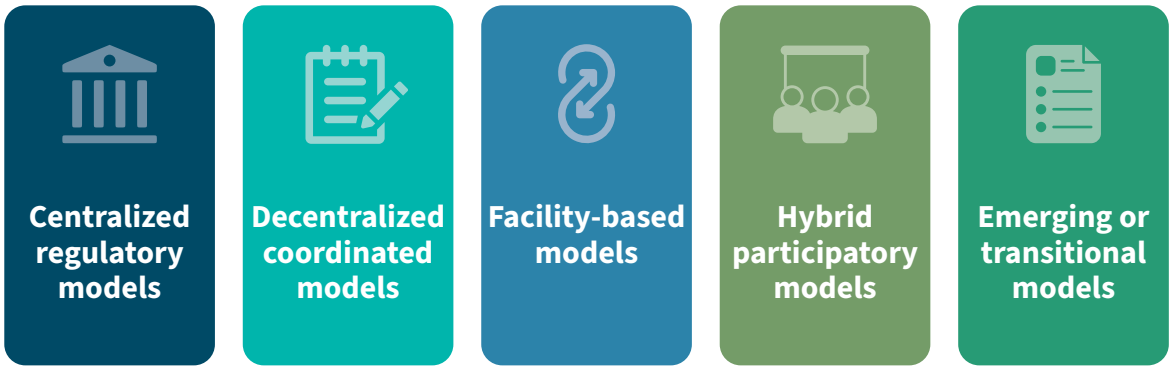
Latvia defines qualitative service-level requirements, specifying which specialists must be available per hospital level, but leaving actual staffing numbers to institutions. Norway exemplifies qualitative approaches through its "soundness requirement," or "quality criterion," which requires services to be "sufficient and safe" without prescribing ratios, leaving staffing decisions to unit leaders. These flexible approaches allow adaptation to local contexts, but accountability is harder to enforce without quantitative benchmarks. Latvia's dependence on hospital discretion and Norway's reliance on supervisory audits illustrate the potential divergences between facility autonomy and measurable safeguards, raising questions about consistency and equity across regions.

Governance for safe staffing

Governance for safe nurse staffing spans five typologies (centralized regulatory models, decentralized coordinated models, facility-based models, hybrid participatory models, and emerging or transitional models) (Fig. 2), each reflecting different structures, accountability mechanisms, collaborations and transparency (the main characteristics of the governance models are outlined in Table 4).

Centralized regulatory models place authority at the national level, with ministries of health and regulatory councils setting standards, often enforcing compliance through legal mandates and using national datasets for monitoring; this is the case in France, Hungary, Ireland, Lithuania, Poland, Portugal, Romania and Slovenia. Decentralized coordinated models delegate implementation to regional health authorities under national policy guidance, supported by consultation and tools like dashboards; this is the case in Czechia, Finland, Italy and Norway. Facility-based models rely on hospital or health facility authority and leadership, and internal audits; for example, in Cyprus, Latvia, Malta and Netherlands (Kingdom of the). Hybrid participatory models combine national policy leadership with strong local implementation and structured accountability, supported by formal stakeholder involvement; countries like Cyprus, Estonia and Greece can be classified under this model. Finally, emerging or transitional models feature a developing structure and often involve a piloting process; Spain is currently undergoing safe staffing law development.

Fig. 2. Governance models



All of these models, even in the case of the most centralized ones, involve collaboration and engagement with key national stakeholders like NNAs, employers (organizations) and trade unions. This is evident in countries with centralized models, such as Ireland, where the Irish Nurses and Midwives Organization regularly engages with national authorities through social dialogue and collective bargaining, or in Portugal, where the *Ordem dos Enfermeiros* [Order of Nurses] was in charge of the development of the legislation that established safe staffing standards.

Table 4. Current safe nurse staffing governance models

Governance model	Leadership structure	Accountability mechanisms	Ministries	Stakeholder engagement	Monitoring and reporting	Nursing Action countries[a]
Centralized regulatory model	National-level leadership: Ministry of Health/national regulatory bodies; centralized policy and standards setting	Legal mandates and regulations; national enforcement agencies or inspectorates; national workforce regulation	Ministry of Health (national) as lead; national regulatory councils (nursing regulator/ professional council)	National advisory boards, professional associations and trade unions involved at national level	Centralized national datasets, mandatory public reporting and national indicators	Hungary, Ireland, Lithuania, Poland, Portugal, Romania and Slovenia
Decentralized coordinated model	Regional health authorities/ autonomous regions operating under national policy guidance	Shared accountability across national and/or regional facility levels; regional implementation plans and regional enforcement where applicable	Ministry of Health sets policy; regional health directorates/ autonomous community health ministries implement	Regional consultations, regional committees and facility-level stakeholder forums; links to national associations	Regional dashboards or regionally curated monitoring systems; regional reporting to national Ministry of Health	Czechia, Finland, Italy and Norway
Facility-based governance model	Facility-based leadership (hospital/ward/ unit managers, nursing managers, staffing committees)	Internal and external audits; facility accreditation standards; local performance management	Local health facility management/ hospitals or trusts with oversight by Ministry of Health or regional authority	Facility-level engagement (nursing managers, unit teams, local professional associations)	Facility-level staffing tracking and local reporting; limited or non-public reporting	Cyprus, Latvia, Malta and Netherlands (Kingdom of the)
Hybrid participatory model	National policy leadership combined with strong, institutionalized facility/regional implementation (national standards and local ownership)	Multilevel accountability (legal, financial, audit) with structured roles at national, regional and facility levels	Ministry of Health and regional/local health bodies; sometimes separate agencies for workforce and education	Institutionalized participation: formal roles for professional associations, employers (organizations), trade unions and advisory groups at multiple levels	Integrated information systems (national and/or regional) with dashboards and more real-time data where available	Estonia, France, Greece and Ireland
Emerging or transitional model	Leadership evolving in centralized or decentralized structures; new agencies or digital governance platforms developing	Partial or evolving accountability, legal reforms in progress; new data systems being tested	Ministry of Health or reform agency coordinating pilot structures	Pilot stakeholder mechanisms; expanding inclusion of professional groups in decision-making	Early-stage or pilot dashboards, digital registries or workforce-monitoring systems	Spain

[a] Bulgaria and Sweden were not able to provide information at the time of writing this report.

Stakeholder engagement and policy integration

Effective and sustainable progress on safe nurse staffing requires coordinated action across multiple organizations and stakeholders to ensure that momentum is built, and that staffing policies are not only adopted but also embedded in practice *(26)*.

Endorsement of safe staffing legislation, accreditation or regulatory frameworks by ministers, GCNOs, professional associations, unions, hospital leadership, patient representatives, education institutions and international organizations provides the legitimacy and alignment needed for successful implementation. Such engagement helps shape shared narratives, enhances visibility and increases collective ownership of staffing reforms.

Early and structured collaboration with diverse stakeholders enables policies to be tested, refined and adapted to local contexts, strengthening the likelihood of long-term success. There is growing recognition that policy-making in health is shifting from traditional "government" to broader models of "governance," characterized by interdependence among actors from different sectors *(65)*.

Across the Nursing Action countries, and more widely, there is a growing focus on the capacity of state actors to convene, coordinate and hold accountable a diverse network of partners, ensuring that collective bargaining and action translates into measurable improvements in nursing workforce sustainability. Having national political leadership can set such an agenda and build momentum, sustaining commitment *(66)*. Such intersectoral work requires credible coordination and embedded mechanisms to support such ways of working *(67)*.

Collective bargaining

Collective bargaining is the mechanism for shaping working conditions in the health sector. While staffing regulations are frequently established through legislation, their effective implementation depends on the employers' organizations working in collaboration with the trade unions and professional nursing associations. This reflects the critical link between staffing levels, occupational safety and health, and quality of care, and underscores the essential role of workers' representatives in monitoring compliance and safeguarding working conditions.

Across Europe, the influence of collective bargaining on safe staffing varies substantially. In countries with strong sectoral bargaining structures, collective agreements cover the majority of the health workers and provide robust frameworks for regulating working conditions. These agreements often include provisions on workload, working time and competence requirements that indirectly supports safe nursing staffing. Other countries have more fragmented bargaining systems, where sectoral agreements exist but coverage is uneven or differentiated between the public and private sectors.

Several countries have very limited coverage where collective bargaining is largely company-based, with low national coverage and restricted sector-level frameworks. A significant decline in sectoral agreements has been noted in some contexts following economic crises, while legislative measures have been employed to further limited collective bargaining rights and social dialogue has been reduced in some countries.

Regulation

The Nursing Action countries have different regulations regarding safe nurse staffing. Fig. 3 summarizes the different regulatory mechanisms that exist in the Nursing Action countries, while Table 5 maps the available regulation mechanisms on safe nurse staffing that are present across the region and how regulation is enforced. Boxes 2–4 demonstrate case studies from Australia, Portugal and Scotland (United Kingdom).

Fourteen countries have binding legislation regarding staffing, two countries have system-level accreditation, and two countries have policy guidelines and health facility protocols. Table 5 shows that across Nursing Action countries, regulation ranges between explicit minimum staffing ratios used as licensing conditions (for example, Cyprus), detailed minimum staffing norms set in national decrees that cover broad care sectors (for example, Czechia, Estonia, Hungary, Italy, Poland and Romania) and frameworks where legislation mandates sufficient staffing without defining nurses explicitly (for example, Finland, France and Slovenia). Some countries apply regulations to all public and private services delivering state-funded care (for example, Latvia and Lithuania), whereas others differentiate between settings such as acute hospitals, long-term care, community services or emergency transport. In several cases, definitions of "nurse" are broad or implicit – referring to "health-care personnel" or "caregivers" – while a few countries clearly identify specific nursing roles or qualifications (for example, Czechia's *všeobecná sestra* [General Nurse] and Italy's Family and Community Nurse). Overall, the descriptions capture the diversity of regulatory approaches, from highly prescriptive staffing formulae to broader quality-based obligations that indirectly shape nurse staffing across health and social care systems. Some Nursing Action countries have staffing level calculation methods – whether ratios, minimum numbers or hours based on need – that are approved by their governments. These countries are Cyprus, Czechia, Estonia, Finland, France, Ireland, Italy, Lithuania, Norway, Poland, Portugal and Romania. As demonstrated by Aiken *(68)*, governments in Australia, Canada and the United States of America have utilized legislation as a means to ensure mandatory nurse staffing levels (patient–nurse ratio).

Fig. 3. Regulatory mechanism models

Table 5. Summary of staffing regulation in Nursing Action countries

Country[a]	Regulation mechanisms	Description	Compliance enforcement	Penalties
Cyprus	**National legislation with facility licensing; professional regulation also exists** The Private Hospitals Law (90(I)/2001) *(57)* The Nursing and Midwifery Law 1988–2025 *(69)*	**The Private Hospitals Law (90(I)/2001)** Concept: it makes safe nurse staffing an explicit licensing condition; CPD is mandatory; ratios apply per shift, ensuring adequate coverage at all times Care setting: private clinics and hospitals Nurse definition: nurses are further defined from the national law, The Nursing and Midwifery Law 1988–2025 *(69)*	Ministry of Health inspections System-level governance/ accreditation-like oversight in the public sector	Yes
Czechia	**National legislation** Decree No. 99/2012 and corresponding amendments by Decrees No. 287/2013, 285/2017, 304/2019, 357/2020, and 340/2022 *(70)*	Concept: it defines minimum staffing requirements for health services Nurse definition: the Decree frequently mentions *všeobecná sestra* [General Nurse] and distinguishes those with specialized or specific professional qualifications. Care setting: it applies to public and private: • ambulatory (outpatient) care; • day-care services; • inpatient (hospital/beds) care; • pharmaceutical (pharmacy) services; • medical transport services; • emergency/ambulance services; • non-urgent patient transport; • home and social nursing care; alcohol/ toxin withdrawal services; • emergency departments; and • mental health centres	Decree 99/2012 is a subordinate regulation issued under Act No. 372/2011 on Health Services; enforcement and penalties are governed by that act, not by the decree itself	Decree 99/2012 is a subordinate regulation issued under Act No. 372/2011, on Health Services; enforcement and penalties are governed by that Act, not by the decree itself
Estonia	**National regulation** Requirements for hospital types (2004/103) *(71)*	Concept: it prescribes minimum staffing levels based on care intensity and setting mandatory qualifications and continuous presence requirements Definition of nurse: refers to licensed nursing personnel employed in specific roles (it includes general nurses and specialized nurse roles) Care settings: it applies to all the hospitals	Health Board conducts oversight of services in Estonia	If deficiencies are found a precept is issued, suspension or revocation of activity licences is rare

Table 5 contd.

Country[a]	Regulation mechanisms	Description	Compliance enforcement	Penalties
Finland	**National legislation** Act on the Organization of Social and Health Care (612/2021) *(72)* Act on Supporting the Functional Capacity of the Elderly Population and on Social and Health Services for the Elderly (980/2012) *(73)*	**Act on the Organization of Social and Health Care (612/2021)** Concept: it establishes that health and social care services must have sufficient competence, functional capacity and readiness to be responsible for organizing health care and social welfare, and they must ensure the availability of health care and social welfare services in accordance with their residents' service needs in all situations Definition of nurse: nurse is not defined, instead it uses broad terms like social and health-care personnel Care setting: • public or private: primary care (e.g. health centres, community nursing, home care); • specialized and secondary care (e.g. hospital inpatient wards, emergency departments); • secondary services (e.g. rehabilitation, mental health, substance withdrawal); • social services (e.g. long-term care, elder care, disability services); and emergency and rescue services **Act on Supporting the Functional Capacity of the Elderly Population and on Social and Health Services for the Elderly (980/2012)** Concept: it establishes that the actual staffing level must be at least 0.6 employees per client Definition of nurse: nurses are not defined Levels of care: the Act covers any public or private: • home-based services; • 24-hour institutional or inpatient care; and • rehabilitative and care services	Enforcement is carried out under broader Finnish supervisory legislation Municipality and/or Regional State Administrative Agency on the basis of grievance reports sent by employees of a health-care services provider that does not comply with legislation	The Act does not specify penalties directly

Table 5 contd.

Country[a]	Regulation mechanisms	Description	Compliance enforcement	Penalties
France	**National legislation** Law No. 2025-74 of 29 January 2025 on the establishment of a minimum number of caregivers per hospitalized patient *(74)*	Concept: it defines mandatory minimum staffing by specialty and type (e.g. acute, long-stay), based on open beds and patient throughput Definition of nurse: the text does not explicitly define *infirmier/infirmière* [nurse]; instead, it uses the broader term *soignants* [caregivers], which includes nurses but also other health professionals involved in direct patient care; the Law defines an obligation to further define nurse–patient ratios at the hospital level Care setting: applies to all public hospitals (both inpatient and outpatient), across all specialties	Facilities decide on bed closures in case of understaffing. If ratios cannot be respected for more than three consecutive days, the hospital director must notify the Regional Health Agency	No
Greece	**Licensing standards and professional regulation** No national legislation	N/A	Audits Oversight by hospital management	Penalties, such as fines, are enforced for overarching regulatory violations; no penalties linked to breaches of explicit staffing ratios across all settings
Hungary	**National legislation** Decree No. 60/2003 (X. 20.) of the Ministry of Health and Social Affairs on the minimum professional requirements for the provision of healthcare services *(75)*	Concept: Ministry of Health, Social and Family Affairs regulates the mandatory minimum number of health-care personnel required in each organizational unit Definition of nurse: it uses broad terms like "health-care personnel" and expects professional minimum staffing levels, which inherently include nursing roles but do not distinguish them separately Care setting: public and private: • primary (outpatient) care (general practitioner offices, specialist outpatient clinics, diagnostic centres); • secondary (inpatient) care (hospitals, acute care wards, surgical units, rehabilitation facilities); • emergency and prehospital care (ambulance services, urgent care units); • home care and community services (nursing and medical care delivered at home or in mobile units); and • specialized services (mental health, maternity, paediatric and other specialty units)	Inspections by The National Centre for Public Health and Pharmacy linked to setting of minimum professional conditions for licensing and operation	A written reprimand and the designation of a deadline by which the staffing shortage must be rectified

Table 5 contd.

Country[a]	Regulation mechanisms	Description	Compliance enforcement	Penalties
Ireland	**National guidance with monitoring by the Health Information and Quality Authority** Framework for Safe Nurse Staffing and Skill Mix *(76)* No national legislation	Concept: the Framework for Safe Nurse Staffing and Skill Mix (74) in Ireland is an evidence-based, flexible approach to determine the number of registered nurses and health-care assistants to provide safe and quality care based on the assessed needs of patients; it incorporates patient need, clinical judgment, evidence of impact and outcome, in addition to determining the required numbers of nursing staff Care Setting: The Framework in Ireland is national policy in all inpatient adult general, and specialist medical and surgical care, settings since 2018, and in all adult emergency departments since 2022; a policy for long-term residential care settings for older people will be published in 2026 and will apply to public and private settings	Regulatory inspections and oversight by Regional Directors of Nursing (highest operational level)	N/A
Italy	**National legislation** Regions incorporate these standards into their planning documents Ministerial Decree 70/2015 *(56)* Ministerial Decree 77/2022 *(77)* Interministerial Decree of 24 January 2023 *(57)*	**Ministerial Decree 70/2015** Concept: establishes national standards for hospital care in Italy, defining organizational requirements, quality benchmarks and criteria for the planning, classification and operation of hospital services Definition of nurse: the Decree does not explicitly define the term *infermiere/ infermiera* [nurse] or provide a detailed classification of nursing roles; instead, it refers generally to staffing standards, which by implication include nurses, but without specific definitions Levels of care: public and private hospitals operating in the National Health Service: • inpatient wards (e.g. medical, surgical, critical care, oncology); • emergency departments; • day hospital services and outpatient hospital units; • ICUs; and • specialized hospital units **Ministerial Decree 77/2022** Concept: sets out the models and standards for local health care in Italy, outlining an integrated, community-based system designed to strengthen primary care, continuity of services and territorial health networks	Oversight by individual regions and companies, and compliance is verified through national monitoring and checks by the *Agenzia Nazionale per i Servizi Sanitari Regionali* [National Agency for Regional Healthcare Services], as well as by the ministry and LEA procedures Accreditation and certifications, especially for private hospitals	Noncompliance with the standards or LEA framework may result in recovery plans, receivership, or funding restrictions at regional or company level, in accordance with public health finance regulations; this is implicit in the LEA framework verification system and the Italian National Health Fund allocation

Table 5 contd.

Country[a]	Regulation mechanisms	Description	Compliance enforcement	Penalties
Italy		Definition of nurse: it introduces the role of *Infermiere di Famiglia e Comunità* [Family and Community Nurse], which is described in Annex 1 of the Decree as "a professional who ensures nursing care across all complexity levels within community settings, collaborating with other colleagues and serving proactively to meet both expressed and potential health needs in the community" Levels of care: public and private affiliated to the National Health Service: • *Ospedali di Comunità* [Community Hospitals]; • *Case della Comunità* [Community Health Houses] open 24/7; • Territorial Operational Centres for triage and coordination; • Continuity Care Units with mobile and domiciliary teams; • integrated home care; and • services delivered by the *Infermiere di Famiglia e Comunità* **Interministerial Decree of 24 January 2023** Concept: this Decree adopts the methodology for determining the personnel requirements of the National Health Service for the 3-year period; it was approved by the State-Regions Conference on 21 December 2022 and provides a standardized methodology for calculating staff needs based on standard times and production volumes, complementing the structural standards of Ministerial Decree 70/2015 (56) and the territorial standards of Ministerial Decree 77/2022 *(77)*		
Latvia	**National legislation** Cabinet Regulation No. 555 *(78)*	Concept: it does not establish fixed workload ratios; instead, it defines the classification of hospitals by level and the number of types of medical specialists required at each hospital level Definition of nurse: it does not explicitly mention the word "nurse" or provide a formal definition of nursing roles; instead, it refers broadly to health-care providers and medical personnel responsible for delivering state-funded services Levels of care: applies to public and private providers delivering state-funded health services, including primary care, emergency services, home/palliative care, child and disability care, and dental care	Oversight by hospital management	Tariffs: each hospital must adhere to the number of specialists, or the hospital contract is concluded

Table 5 contd.

Country[a]	Regulation mechanisms	Description	Compliance enforcement	Penalties
Lithuania	**National legislation** Law on Healthcare Institutions (No. I-1367) *(79)*	Concept: the Law allows the government to issue "medical norms," which stipulate minimum staffing levels, personnel qualifications and facility standards required by licensed institutions Definition of nurse: it uses broad terms like "health-care personnel" and delegates the definition of specific professions (including nurses) to other legislation Levels of care: applicable to all institutions – including public, municipal, state and private organizations – as long as they are legally licensed to offer health services	Licensing of institutions Competent authority inspections	Yes: can suspend or revoke licences
Malta	**Legal frameworks not specific to staffing** Subsidiary Legislation 458.23. Licensing of Private Medical Clinics Regulations *(80)* Health Act, Chapter 528 *(81)*	**Subsidiary Legislation 458.23 Licensing of Private Medical Clinics Regulation** This subsidiary legislation focus on private licensing conditions, which include requirements about staffing that must be met for the licence to be granted and maintained **Health Act, Chapter 528** Indirectly addresses staffing levels, this Act empowers the Minister responsible for Health to ensure that health-care services are delivered in a way that protects public health and patient safety; at present, all public health-care establishments have in place the minimum accepted operational nursing staffing levels	Through inspections for renewal	Any failure to comply may result in refusal or withdrawal of licence No penalties apply
Netherlands (Kingdom of the)	**Legal frameworks not specific to staffing**	Workforce adequacy and professional competence obligations are embedded in existing health-care quality and professional regulation frameworks	The *Inspectie Gezondheidszorg en Jeugd* [Health and Youth Care Inspectorate] supervises compliance with quality and safety requirements	Can impose measures (improvement directions, administrative fines, public reporting) where statutory obligations are not met

Table 5 contd.

Country[a]	Regulation mechanisms	Description	Compliance enforcement	Penalties
Norway	**National legislation and licensing** Act on State Supervision of Health and Care Services, etc. (Health Supervision Act), sections 3 and 4 *(82)*	Concept: this specifies the boundaries for sufficient and quality of services; while it does not explicitly include staffing, it says that i) the *Statsforvalteren* [County Medical Officer] and the *Statens Helsetilsyn* [The National Health Authority] have to assess whether services are being delivered in a "sound and responsible" manner, consistent with applicable laws and regulations; and ii) it establishes an obligation to establish an internal control system Definition of nurse: nurses fall under the general category of health personnel, as defined in the *Helsepersonelloven* [Health Personnel Act] *(83)* Levels of care: • municipal health and care services (e.g. home nursing, nursing homes, general practitioners, child and school health services); • specialist health services (hospitals and regional health authorities); • dental services (both public and private providers); and • private health and care providers (any private entity delivering health or care services)	National service assessments linked to licensing	A range of interventions dependent on severity of noncompliance: official warnings, fines, facility closure and suspension of licences
Poland	**National legislation** Regulation of the Minister of Health of 22 November 2013 on guaranteed services in the field of hospital treatment *(84)* Regulation of the Minister of Health of 28 December 2012 on the method of establishing minimum employment standards for nurses and midwives in non-business healthcare entities *(85)*	**Regulation of the Minister of Health of 22 November 2013 on guaranteed services in the field of hospital treatment** Concept: sets out detailed rules issued by the Polish Minister of Health to govern specific aspects of health-care organization and delivery, establishing requirements and procedures applicable to the relevant area of the health system covered by the regulation Definition of nurse: the regulation itself does not define "nurse." Levels of care: guarantees hospital services and defines several hierarchical levels of care provided within hospitals **Regulation of the Minister of Health of 28 December 2012 on the method of establishing minimum employment standards for nurses and midwives in non-business healthcare entities** Concept: this Regulation defines a structured, formula-based method to calculate minimum nurse and midwife staffing in public non-commercial inpatient health-care settings; calculations factor in patient count, service complexity, care categorization, and both direct and indirect care time	The regulations generally do not contain their own penal or enforcement chapters Inspections from the National Health Fund, State Sanitary Inspection and the Minister of Health monitor compliance with the standards required by ministerial regulations	N/A

Table 5 contd.

Country[a]	Regulation mechanisms	Description	Compliance enforcement	Penalties
Poland		Definition of nurse: the regulation refers generically to *pielęgniarki* [nurses], but does not define or distinguish between specializations or categories (e.g. general versus specialist nurses) Levels of care: the regulation applies exclusively to "entities not being entrepreneurs," meaning non-commercial health-care providers such as public hospitals and clinics; private, for-profit entities are outside the scope of this regulation and are not required to follow these minimum staffing norms		
Portugal	**National legislation and standards** Order of Nurses publishes non-legislated technical standards Regulation of the Standard for Calculating Safe Staffing Levels for Nursing Care (No. 743/2019) *(59)*	Concept: establishes a nationwide standard for calculating adequate nursing staff allocation based on patient care needs, institutional features and professional competencies Definition of nurse: it uses the term "nurse" broadly, referring to any licensed nurse registered with the Order of Nurses Levels of care: regulation applies to all health-care settings (public hospitals, primary care, and private, cooperative and social care sector institutions, as well as in prison health services and military health institutions)	Audits with approval from the Ministry of Health	No
Romania	**National legislation** Order of the Ministry of Health No. 1.778/2006 *(86)* Order of the Ministry of Health No. 1224/2010 *(87)*	**Order of the Ministry of Health no. 1.778/2006** Concept: approves national staffing norms for health-care units; staffing levels are set as minimum mandatory, with the possibility to increase them through justified requests approved by the Ministry of Health Definition of nurse: uses the term *asistent medical* [nurse] Levels of care: public, non-profit providers only **Order of the Ministry of Health No. 1224/2010** Concept: specifically updates and refines staffing norms for hospital-based medical care, modifying and supplementing Order 1.778/2006 *(86)*; includes tables detailing staffing numbers for wards, ICUs, emergency units, and mental health and infection-prevention departments Definition of nurse: uses the term *asistent medical* [nurse] Levels of care: public hospitals only	Hospital management	The *Autoritatea Națională de Management al Calității în Sănătate* [National Authority for Quality Management in Health] provides an evaluation criterion for health services that may lead to a decrease in the hospital's score during the accreditation process

Table 5 contd.

Country[a]	Regulation mechanisms	Description	Compliance enforcement	Penalties
Slovenia	**National legislation** Zakon o zdravstveni dejavnosti (ZZDej) [Health Care Act] *(88)*	Concept: focuses on system-level governance (terminology, service structure, provider roles, financing and regulatory oversight), not staffing level definitions	In health care, staffing regulations for nurses and other health-care professionals are overseen by the Health Inspectorate of the Republic of Slovenia, as well as by the Office of the Republic of Slovenia for the Monitoring, Quality and Investments in Healthcare, within the framework of quality assurance and analytical activities	No
Spain	**Legal frameworks not specific to staffing** Law 55/2003 on the Framework Statute for Health Service Personnel *(89)* and Law 44/2003 *(90)* on the Regulation of Health Professions require Public Administrations to adequately plan the human resources of the health-care system; they do not establish specific criteria Safe nurse staffing regulation currently being under consideration	Not applicable	Not applicable	Not applicable

Note: LEA: Livelli Essenziali di Assistenza [Essential Levels of Care]; N/A: not available.

[a] Bulgaria and Sweden were not able to provide information at the time of writing this report.

Box 2. Staffing ratios, Australia

Australia has been a global leader in implementing mandatory nurse–patient ratios, beginning with the state of Victoria, which introduced minimum ratios in public hospitals in 2000. These were later formalized in legislation in 2015 and updated over time to reflect changing care needs, and were most recently extended in 2025. The typical standard in Victoria and most other states is a maximum of four patients per nurse (a one-to-four ratio) on daytime medical–surgical wards, with slightly higher ratios at night depending on jurisdiction. The policy has been credited with improving recruitment to the public sector and ensuring safer working conditions. Importantly, nurses counted in the ratios must be assigned to direct patient care, and the legislation allows flexibility to account for patient acuity through averaging models such as the "5–20 framework," where five nurses jointly care for 20 patients.

The state of Queensland has provided the strongest evidence of the effectiveness of these reforms *(91)*. Since implementing nurse–patient ratio legislation on acute medical–surgical wards in 2016, Queensland has conducted a rigorous, independent evaluation showing major improvements in nurse well-being and patient safety. Within 2 years, hospitals with the new staffing standards saw 24%-lower odds of nurse burnout, 27% less job dissatisfaction and 42% fewer nurses reporting poor quality of care. Patient outcomes also improved markedly, with fewer deaths, readmissions and hospital days, generating an estimated 70 million Australian dollars in savings, more than double the cost of hiring additional nurses.

Following Queensland's success, most other Australian states – including New South Wales, South Australia and the Australian Capital Territory – are now in various stages of implementing or expanding similar ratio legislation, making Australia one of the most advanced countries in the world regarding safe nurse staffing policy.

Box 3. *Calculadora de Dotações Seguras dos Cuidados de Enfermagem* [Safe Nursing Care Staffing Calculator], Portugal

Portugal began developing a national framework for nurse staffing in 1984 with the creation of the *Sistema de Classificação de Doentes* [Patient Classification System], which is based on levels of dependency on nursing care. Gradually implemented across the National Health Service, it enables managers to assess care demand, plan nurse recruitment and justify staffing decisions within institutional budgets. The system, managed by the Central Administration of the Health System, calculates nursing workload in hours of care required per patient per day.

Recognizing that safe staffing requires more than workload measurement, in 2014 the Order of Nurses developed the *Norma para o Cálculo de Dotações Seguras dos Cuidados de Enfermagem* [Standard for Calculating Safe Staffing Levels for Nursing Care] *(92)*, a technical standard defining the criteria to calculate the number of nurses needed to deliver safe, high-quality care. Revised in 2019 and further reviewed in 2025, the norm applies across all health-care sectors in Portugal – public, private, cooperative and social – and to all care contexts, including hospitals, community services and prisons.

The Standard goes beyond quantitative measures, incorporating factors such as nurse qualifications, specialization, service organization and research activities. It also standardizes assumptions around nurse availability (annual working days, absences and training) and patient occupancy. Its objectives are to provide a legally grounded, evidence-based tool for staffing, to guide human resource planning, and to promote transparency and quality in care provision.

To support implementation, the Order of Nurses launched a digital calculator in 2024, the *Calculadora de Dotações Seguras dos Cuidados de Enfermagem (93)*, which is free for all nurses. This tool allows managers and institutions to evaluate compliance with the standard and simulate different staffing scenarios. While primarily quantitative, it enhances accountability and strategic planning. The Order of Nurses is now exploring artificial intelligence solutions to incorporate qualitative factors, such as service complexity and care environment, into future versions of the tool.

Box 4. Health and Care (Staffing) (Scotland) Act 2019, United Kingdom

The Health and Care (Staffing) (Scotland) Act 2019[a] *(94)* is the first legislation in the United Kingdom to place a statutory duty on health and social care providers to ensure safe and appropriate staffing levels. Introduced in response to rising service pressures, growing workforce shortages and concerns about variation in care quality, the Act requires organizations to use evidence-based tools, professional judgement and robust governance to plan and monitor staffing. Its aim is to create a consistent, transparent framework that supports high-quality care and protects both patients and staff.

Implementation has involved significant collaboration across government, NHS Scotland, regulators and professional bodies. Early experience shows that the Act has strengthened workforce planning processes and increased organizational accountability, although challenges remain around data quality, workforce capacity and variability across settings. Overall, it represents a substantial shift towards embedding safe staffing as a legal, system-wide responsibility.

[a] Actual implementation of the legislation was paused by the COVID-19 pandemic and enacted on 1 April 2024.

Financing

In most EU countries, health services are predominantly publicly financed; in some cases, EU or recovery funds complement national investments in workforce initiatives. What matters is the level at which financing requirements and incentives are set, which is ultimately a tool that can be considered to support safe nurse staffing in countries. Financial requirements and incentives can be set at the system level, where governments can embed safe-staffing standards and financing conditions, or at the facility level, where managers decide how to allocate budgets internally. This distinction shapes whether safe staffing becomes a strategic, system-wide requirement backed by clear expectations and accountability, or remains a local budgeting choice vulnerable to competing priorities. In other words, sustainability and political ownership of safe staffing policies depend less on whether money comes from national or EU sources, and more on whether financing rules and incentives are designed to secure adequate staffing across the system, rather than leaving the issue to facility-level discretion *(95)*.

Financing arrangements have the ability to shape whether safe nurse staffing can be achieved in practice. This requires understanding of how budget formulation and purchasing mechanisms – such as contracting, price-setting, payment models and targeted adjustments – create incentives for providers to meet staffing requirements.

Safe staffing should be understood as a foundational, long-term investment rather than a recurrent operational expense. Policy-makers therefore need to consider the economic implications of staffing initiatives; specifically, whether additional government funding is required upfront and how these costs may be offset over time through improved staff retention and well-being, shorter lengths of stay and reduced readmissions. Evidence increasingly suggests that effective staffing interventions not only improve patient outcomes but also yield cost savings over time *(96)*. An example from Ireland is included in Box 5.

Box 5. Return on investment, Ireland

In Ireland, workforce planning initiatives, particularly those focused on nursing and midwifery, have increasingly used simulation models and optimization techniques to estimate the return on investment of safe-staffing improvements. These models typically integrate patient acuity, bed occupancy, skill mix and predicted demand to show how different staffing configurations affect service performance and cost. Return-on-investment analyses often demonstrate that increasing nurse staffing or improving skill mix yields net savings when downstream impacts are included.

Evidence from Ireland and comparable systems consistently shows that improving nurse staffing levels or skill mix can reduce lengths of stay, largely through fewer complications, more timely interventions, smoother patient flow and reduced readmissions *(97)*. Simulation models often quantify these reductions, showing that even modest nurse staffing uplifts can generate significant bed-day savings.

Table 6 shows the purchasing-related financing tools that can contribute to safe nurse staffing. In this regard, the different purchasing tools are conditional contracting, price setting and budget formulation, add-on payments, payment for preparedness and targeted staffing-related payments. In general, most country mechanisms fund nursing indirectly, through general staffing budgets or embedded tariff components. Preparedness payments and COVID-19-related targeted payments illustrate the use of more explicit staffing financing tools, though these remain exceptional rather than routine.

Conditional contracting was reported only in few settings. For example, in Estonia, providers seeking a hospice contract must comply with defined staffing requirements, such as ensuring 4.73 nurses per 12 patients. This allows the purchaser to reinforce regulatory standards directly through contracting.

Price setting and budget formulation are more commonly used but typically embed nursing costs implicitly rather than transparently. In Estonia, staffing assumptions are incorporated into service price calculations. Similar patterns are found elsewhere. Greece's tariff mechanisms under EOPYY (the National Organisation for the Provision of Health Services) affect staffing indirectly; Italy's mix of historical and target budgets incorporates staffing criteria in regional planning; Lithuania's fee-for-service prices include wages but do not specify staffing requirements; and Portugal distributes resources through general staffing budgets without dedicated nursing components.

Add-on payments also influence staffing in some cases. Estonia adjusts primary care capitation for factors such as age and rurality, while in Autonomous Communities of Spain, criteria like population served or geographical dispersion can influence salary levels in primary care. These adjustments respond to contextual needs but do not specifically target nurse staffing.

Payments for preparedness play a more explicit role in ensuring staff availability in high-acuity settings. Estonia uses fixed lump-sum payments for emergency departments and ambulance services to secure constant readiness, while Romania provides additional transfers for wages, overtime and bonuses in intensive care, oncology and the emergency services.

Finally, targeted staffing-related payments were widely introduced during the COVID-19 pandemic, offering clearer examples of direct financial support for nursing. Countries such as France, Germany, Ireland, Italy, Portugal and Spain implemented temporary payments directly to nurses, while others – including Estonia, Finland, France, Italy, Poland, Romania and Slovenia – provided indirect payments through hospital budgets or capacity grants to cover staffing costs. Although temporary, these interventions illustrate the potential for more direct purchasing mechanisms to strengthen nurse staffing during periods of heightened need.

Table 6. Purchasing-related financing tools for safe nurse staffing in Nursing Action countries

Purchasing mechanisms	Description	Policy relevance	Nursing Action countries[a]
Conditional contracting	Conditional contracting, when providers need to meet safe staffing requirements to be eligible for a contract or contracts, includes penalties if staffing requirements are not met.	Embedding staffing requirements into contractual obligations with penalties for noncompliance makes safe staffing a prerequisite for participation in the health system and reduces reliance on voluntary compliance.	Estonia
Price setting and budget formulation	Integrates safe staffing norms explicitly into diagnostic related group tariffs, capitation payments or other payments and budget allocations to ensure the cost of adequate staffing is structurally funded. This could also be mixed with penalties (reduced prices) if staffing standards are not met. This is aligned with WHO emphasis on strategic purchasing that links provider payment to performance and population needs.	By costing staffing norms into payment rates or budget allocations – and applying reduced prices/budgets when standards are not met – governments can create strong financial incentives for adequate staffing and support long-term sustainability of safe staffing investments.	Estonia, Greece, Italy, Lithuania and Portugal
Add-on payments	Add-on payments or adjusters to account for patient complexity (e.g. capitation adjustments for age or chronic conditions), high-workload settings (e.g. emergency department, ICUs, etc.), and "hard-to-staff" areas (e.g. rural adjustments) can contribute to correct inequalities that arise when some settings require higher staffing input.	Adjustment payments enable more realistic financing of staffing needs and ensure that safe staffing expectations are met across diverse care environments, not only in standard acute wards.	Estonia and Spain
Payment for preparedness	Preparedness-oriented payments (e.g. fixed lump sum payments or budgets) for maintaining minimum staffing capacity independent of volume (e.g. emergency department, ambulance).	This tool supports continuity of safe staffing even during low-activity periods and reduces vulnerability to surge-driven failures.	Estonia, Greece and Romania
Targeted staffing-related payments	Targeted, temporary payments are relevant for addressing short-term health system shocks, crises or acute shortages (e.g. seasonal surges or an emergency event).	While not a substitute for structural financing reforms, targeted payments function as a crucial flexible tool for maintaining safe staffing during unexpected or high-demand situations.	France, Germany, Greece, Ireland, Italy, Portugal and Spain

[a] Bulgaria and Sweden were not able to provide information at the time of writing this report.

Monitoring and evaluation

To ensure that safe nurse staffing remains effective and context-appropriate, continuous monitoring, evaluation and transparent reporting are essential. This requires robust information systems that capture real-time staffing data and link to patient outcomes.

Monitoring should be guided by clearly defined indicators such as nurse–patient ratios, missed care rates, patient safety outcomes, lengths of hospital stay, workforce retention and turnover rates, sickness absence, overtime hours, use of temporary staff and student admissions. These indicators allow for

benchmarking across countries – particularly useful for small countries when comparing with other small countries – and for comparisons within countries between regions and care settings.

Public reporting and transparency mechanisms are critical to the building of trust and accountability. In practice, this may include establishing a national regulatory body that oversees compliance, implementing live dashboards for staffing coverage, and conducting regular audits and publicly published results. A case study from United Kingdom (Scotland) is shown in Box 6.

Box 6. Health and Care (Staffing) (Scotland) Act 2019, United Kingdom

Monitoring and evaluation of the Act *(94)* have centered on whether organizations are consistently applying the statutory duties and staffing tools, and whether this leads to measurable improvements in care quality, safety and workforce well-being. National Health Service boards and care providers are required to report on their staffing decisions, use of evidence-based tools and the impact of staffing levels on outcomes. This has created a clearer audit trail and stronger governance, supported by national oversight from the Scottish Government and Healthcare Improvement Scotland.

Early monitoring indicates improved transparency and more structured workforce planning, although full evaluation is constrained by data gaps, variation in implementation readiness and persistent workforce shortages. Ongoing evaluation focuses on organizational compliance, the effectiveness of staffing tools across diverse clinical and care settings, and whether the legislation ultimately contributes to safer, more sustainable staffing models.

Where implementation falls short, as it can occur in the realm of health systems in the Nursing Action countries, joint oversight committees with representatives from various sectors may help to identify gaps and ensure corrective action. Inclusive governance that engages nurses, health-care administrators, policy-makers, nursing associations, employers (organizations) and trade unions strengthens shared accountability and increases the likelihood that staffing policies are sustainable and effective.

Operational safe nurse staffing domain

Operational safe nurse staffing refers to meso-/micro-level decisions and management of safe nurse staffing. This primarily means the day-to-day scheduling of staff to ensure appropriate coverage within a service or a network of service providers. This benefits from being carried out by nurses, at either facility or unit level in all care settings, who understand the competencies and needs of their staff, but also those of patients and the service goals. Its effectiveness benefits from nurses in senior management roles who oversee the entire facility, setting or service, and who work interprofessionally with colleagues and executive management in making decisions about how to optimize approaches.

This accounts for an often highly variable approach not just at facility level, but sometimes between units in one facility. In some cases, and in the absence of national policy guidelines, senior nurses make use of tools to support their planning and decision-making. In other cases, decisions are made using institutional knowledge and professional judgement. Operational safe nurse staffing approaches should be guided by a strategic approach to nurse staffing, while also constantly informing strategic policy and governance. There are five key dimensions that are important for operational nurse staffing: shift allocation, workload assessments, skill-mix decisions (of nursing personnel and also multidisciplinary teams), real-time staffing adjustments to patient needs and how to optimize professional judgement.

Shift allocation

Shift allocation refers to the considerations needed to plan the distribution of nursing staff across time to ensure continuous service coverage and compliance with employment and safety requirements. This focus ensures that an adequate number of nurses are rostered for each shift, with appropriate senior presence to support supervision and continuity of care. Decision-making is shaped by certain variables like diurnal variation, weekends, seasonal pressures, and contractual or regulatory limits on working hours. For example, senior nurses may plan higher baseline staffing on early shifts, where admissions and procedures are concentrated, or ensure senior clinical leadership is present during out-of-hours periods.

Workload assessment

Workload assessment involves considering the volume and intensity of nursing care required by patients within a specific setting. Unlike shift allocation, it focuses on care demand rather than staff numbers over time. This focus is important to ensure that nursing resources align with patient acuity, dependency and turnover, thereby reducing the risk of unmet care needs. Contingencies influencing workload include changes in patients' conditions, admission and discharge activity, and care processes that increase time demands. For example, a service with stable staffing levels may still require workload escalation when patients have complex care needs or rapid clinical deterioration.

Skill-mix decisions

Skill-mix decisions involve considering the composition of the nursing team and the distribution of competencies within it. This focus is important to ensure that the available workforce has the appropriate level of professional expertise to meet patient needs safely and legally. These decisions vary based on a range of information coming from performance evaluations, scope-of-practice regulations, the availability of specialist nurses, advanced practice nurses or nursing assistants, and the experience profile of the team. For example, high-risk clinical areas may require a higher proportion of registered nurses, while support staff are deployed to complement – but not substitute for – professional nursing judgement.

Real-time staffing adjustments to patient needs

Real-time staffing adjustments address unplanned variations that arise during service delivery and cannot be fully anticipated through prior planning. Senior nurses focus closely on this to maintain safety in the face of sudden changes. Key contingencies include unexpected staff absences, rapid changes in patient acuity, emergency admissions or operational disruptions. Examples include redeploying staff between services, requesting temporary cover, escalating risks through governance processes or temporarily reprioritizing care activities. These decisions rely heavily on senior nurses' situational awareness and professional judgement, and the extent to which they are empowered and authorized to implement such changes.

Professional judgement

First described in the United Kingdom in the 1970s *(98)*, the term refers to the calculation of the number of nurses needed to reliably fill the daily staffing plan. It relies upon senior nurses knowing their team capabilities, patient needs and the norms in their setting. Evidence shows that structural empowerment of nurses is required to ensure that they can exercise their professional judgement *(99)*. "Magnet hospitals" demonstrate better safe nurse staffing outcomes as they are structurally empowered by their positions on the organizational chart, as in a chief nurse officer in the executive decision-making team *(100)*.

Professional judgement allows senior nurses to react to live situations, maintaining flexibility and adaptability to specific patient and staffing needs. Conversely, relying solely on a nurse manager to determine the staffing allocation is subjective and leads to variability across managers. There is also limited evidence on the rationale and validation of such decision-making, and they remain constrained by incomplete information and funding limitations. To address these challenges, professional judgement should not operate in isolation but be embedded within a structured framework that combines clinical insight with validated tools and data-driven processes. This integration ensures that staffing decisions are transparent, evidence-based and aligned with organizational standards.

Safe nurse staffing tools

The above five dimensions that underpin the operational safe nurse staffing domain can be supported by a range of staffing tools. A staffing tool is a practical, often standardized instrument – such as clinical guidelines, checklists, decision aids or computerized systems – used to calculate specific staffing needs on the basis of measurable data or to support a nurse's professional judgement *(98,101)*. Some of these tools, often digital, are owned by private companies and licences are required to use them. There are different types of safe nurse staffing tools available to facilities, services and settings. These are outlined in Table 7.

Table 7. Description of safe nurse staffing tools

Type of safe nurse staffing tool	Definition
Protocols	Formal guidelines or policies that outline the standards for ensuring nurse–patient ratios and appropriate staffing levels. This may be at the national, regional or local level.
Frameworks	Designed to support nursing managers in analysing data and assessing their context to make informed staffing decisions based on patient care needs and resource availability.
Checklists	Structured tools that outline key staffing requirements, ensuring essential criteria like skill mix, nurse availability and workload balance are consistently met.
Digital tools	Digital platforms that collect and process data – such as patient admissions, discharges and acuity levels – to provide real-time insights for adjusting staffing levels.
Acuity-based assessments	Systematic evaluations of patient conditions to determine the level of nursing care required, ensuring staffing aligns with the intensity of patient needs.
Standards	National requirements and precedents for nursing care, patient safety and rights.

Implementation within complex systems

In the contexts of the Nursing Action countries, a continuum of approaches that recognizes the complexity of staffing as an interconnected issue with wider factors at all levels of a given country context is required. Interdependencies – such as digital systems, multidisciplinary teams, funding flows and changing models of care that affect staffing outcomes – should be factored into key decision-making.

Reliance on a single approach to staffing, while potentially definitive and clear-cut, is in many cases unlikely to be feasible given the complex realities of health systems. In many countries, a binary approach to staffing risks oversimplifying the multifaceted environments in which nurses work. Staffing approaches and tools should not only consider numbers, but also how nurses interact with these wider systems and with the patients and communities they serve. Recognizing this complexity requires a multidimensional lens.

The following types of complexity illustrate the layers that influence staffing requirements and outcomes:

- **Clinical complexity.** Clinical settings are defined by varying degrees of patient acuity and unpredictability. Factors such as severity of illness, multiple comorbidities and fluctuating clinical trajectories increase demands on nursing skill mix and decision-making capacity.

- **Organizational complexity.** Staffing levels are influenced by the organizational context, resource availability, leadership support, interprofessional communication and physical working environment. Systemic pressures such as bed occupancy, patient flow and workload distribution directly affect nurses' workloads and abilities to meet demands. Magnet4Europe highlighted the need for agile models within health systems, drawing on interprofessional working as well as organizational fluidity *(102)*.

- **Relational complexity.** Beyond clinical and organizational factors, the relational dimensions of care – such as patients' emotional states, family dynamics, communication barriers and the psychological toll on nurses – profoundly shape care delivery. These elements underscore the fluctuating nature of safe nurse staffing, which depends on variable human elements.

- **Social complexity.** Broader social determinants of health, mental health challenges, inadequate access to care, low health literacy, and poor housing and employment trends compound care needs. Nurses often act as the first line of response to these social challenges, requiring time, adaptability and strong community linkages, thus increasing the demands on health services and potentially on staffing requirements.

- **Behavioural complexity.** Patient behaviours – such as non-adherence to treatment, missed appointments or communication difficulties – introduce further variability into workload and care planning. Effective staffing must account for the time and skill required to engage, educate and support such patients safely and compassionately.

Policy directions

While complex, effective safe nurse staffing is fundamental for patient safety, quality of care and positive health outcomes. It is also critical for the sustainability of the nursing workforce and ultimately the larger health and care workforce, of which the nursing workforce makes up to 55% in the EU. This brief has shown that safe nurse staffing requires a comprehensive approach. Based on a conceptual framework that divides key actions into strategic and operational domains, this technical brief offers a framework to help Member States ensure effectiveness and an integrated approach. Strategic and operational measures cannot work in isolation from each another, and neither set of measures is more important than the other.

The analysis suggests eight main policy directions that are outlined below.

- **Recognize nursing as safety-critical.** Safe nurse staffing is inextricably linked with staff well-being and patient safety. Well-performing health systems recognize the safety-critical nature of nurses and adopt all necessary measures to avoid and reduce harm, including having adequate numbers of appropriately trained and supported staff. This includes implementing the seven policy actions from the WHO *Mental Health of Nurses and Doctors survey in the European Union, Iceland and Norway* report *(3)* to support countries in preventing mental ill health among the health and care workforce, while protecting and promoting mental health and well-being.

- **Manage system complexity.** By recognizing safe nurse staffing as being shaped by a multitude of factors – including digital systems, multidisciplinary working, funding flows and evolving models of care – but also understanding that patients themselves have complex needs, countries can factor all elements into key decision-making and develop a continuum of approaches for safe nurse staffing.

- **Secure vested support for sustainability.** Safe nurse staffing reforms are strengthened by structured and continuous engagement with nurses, regions, regulators, employers and unions, helping to secure shared ownership and effectiveness. Cross-sector working (for example, with financial and educational counterparts) is a key aspect of ensuring safe nurse staffing.

- **Build purpose-driven data systems.** The majority of countries use a combined volume- and patient/acuity-based; this requires investment in data systems and sufficient human resources to ensure accurate measurement, periodic re-evaluation and reduction of overburden with reporting. Digital tools and data systems for staffing, workload management and patient outcomes require automated and interoperable systems, avoiding burdensome manual processes. The sharing and use of national data to inform a harmonized European and EU database of nurse workforce data could in turn help strengthen national systems via a positive feedback loop.

- **Monitor for accountability.** Many countries have weak or absent monitoring, reporting and accountability mechanisms for safe nurse staffing, requiring the introduction of proportionate regulation, audit routines and transparent public reporting to adhere to safe nurse staffing standards.

- **Secure investment for safe nurse staffing.** The sustainability and political ownership of safe staffing policies depend not only on the source of funds, but also other tools like system-level conditional purchasing, financing rules and incentives that secure adequate staffing, which take the issue beyond individual facility-level discretion.

- **Strengthen education and training quality.** Safe nurse staffing requires effective implementation of approaches that are responsive to real-world clinical contexts. Nursing education and CPD provide nurses with the knowledge, skills and confidence to provide high-quality care, adapt to changing care demands and contribute to staffing decisions.

- **Strengthen nurse leadership.** Safe nurse staffing will benefit from supported nurse leadership that provides nurse leaders in, between and across facilities to make decisions that draw on evidence, and gives recognition to their professional autonomy and judgement.

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Annex 1. Methodology

This brief was developed as part of the Nursing Action, led by the WHO Regional Office for Europe and funded by the Directorate-General for Health and Food Safety of the European Commission. The methodology combined three main components: a structured literature review (including scientific and grey literature), a survey of national Focal Points and semi-structured interviews with stakeholders.

An initial literature review was conducted to identify evidence, policy frameworks and implementation experiences related to safe nurse staffing across WHO European Region countries. The search included databases and sources such as PubMed and Google Scholar, complemented by targeted searches of WHO, European Commission and national health authority websites. Keywords included "safe nurse staffing," "skill mix," "workforce planning," "staffing legislation" and "health system governance." Grey literature was prioritized to capture recent policy developments and country-specific frameworks, including government reports, regulatory documents and professional association publications. Inclusion criteria focused on recent publications from the last decade that addressed staffing models, governance, financing, and monitoring and evaluation. Key references included two reports by the European Federation of Nurses Associations based on data from 36 national nurses' associations *(1,2)* and a Health System Performance Assessment report *(3)* produced as part of the HEROES (HEalth woRkfOrce to meet health challEngeS) Joint Action *(4)*.

National Focal Points from each Nursing Action country received a structured survey designed to capture current approaches to defining nurse staffing, governance and accountability structures, legislation and compliance mechanisms, financing arrangements, and monitoring and reporting systems. The survey included both closed and open-ended questions to allow for quantitative benchmarking and qualitative insights. Responses were analysed thematically and cross-checked against published sources to ensure consistency and validity.

To complement the survey, selected semi-structured interviews were conducted with Chief Nursing Officers and other stakeholders. The topic guide focused on current staffing approaches and their perceived effectiveness, barriers and facilitators to implementation, monitoring and accountability mechanisms, the role of governance and stakeholder engagement, and lessons learned for scaling up.

The following countries are part of the Nursing Action programme: Cyprus, Czechia, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands (Kingdom of the), Norway, Poland, Portugal, Romania, Slovenia and Spain (Bulgaria and Sweden were not able to provide information at the time of writing this report).

References[2]

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2 All references were accessed 3–6 February 2026.

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The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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Document number: WHO/EURO:2026-13146-52920-82459 (PDF)