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NAO RAPID REVIEW

Safe staffing and nurse-patient ratios: A comparative review of selected policy and legislative frameworks

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CANADIAN FEDERATION OF NURSES UNIONS

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LAND ACKNOWLEDGEMENT

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LIST OF ABBREVIATIONS

BPF	Business planning framework
CNA	Certified nursing assistant
CQC	Care Quality Commission
DRG	Diagnostic-related group
EN	Enrolled nurse
ICU	Intensive care unit
InEK	*Institut für das Entgeltsystem im Krankenhaus* (Institute for the Hospital Remuneration System, Germany)
LPN	Licensed practical nurse (also referred to as registered practical nurses in Ontario)
LTC	Long-term care
LVN	Licensed vocational nurse
MMM	Modified Monash Model
mNPR	Minimum nurse-patient ratio
NHS	National Health Service, the UK
NHpPD	Nursing hours per patient day
NPR	Nurse-patient ratio
PCS	Patient classification system
PPBV	*Pflegepersonalbemessungsverordnung* (Nursing Staffing Assessment Regulation, Germany)
PpUGV	*Pflegepersonaluntergrenzen-Verordnung* (Minimum Staffing Levels Ordinance for Nursing Staff, Germany)
RN	Registered nurse

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EXECUTIVE SUMMARY

Safe nurse staffing, including through nurse-patient ratios (NPRs), is associated with improved patient and nurse outcomes. There is a range of associated policy mechanisms for NPRs and other safe staffing approaches, including legislated, mandated and recommended approaches. Many jurisdictions worldwide have planned or implemented NPRs and/or safe staffing policies, including some provinces in Canada (i.e., British Columbia (BC), Manitoba and Nova Scotia). Building on previous work describing NPR and safe staffing policies and legislation, this rapid review aims to: examine and compare NPRs and safe staffing legislation and policies in selected peer international jurisdictions; and propose policy considerations for implementing and enforcing NPRs and safe staffing policies in a Canadian context based on international evidence.

We conducted a rapid jurisdictional review to explore the policy and legislative frameworks for safe staffing and NPRs in acute care settings in Australia, the United Kingdom (UK), Germany and select states within the United States (US). Findings summarize the key policy characteristics, such as: health care professionals of focus, health care settings, nursing skill mix, staffing methodologies; contextual considerations for implementation; mechanisms for reporting, compliance and enforcement of staffing levels; outcomes and indicators; and implementation challenges.

We highlight several considerations for implementation of NPRs and safe staffing policies that were identified across the jurisdictions, and offer five key policy considerations for implementation in a Canadian context:

1. Collaborate with key stakeholders to support development and implementation
2. Develop clear outcome reporting and evaluation plans to capture and demonstrate the impacts of safe staffing policies, including NPRs
3. Define mechanisms for enforcement, including processes for identifying and addressing non-compliance
4. Implement supports to address workforce challenges
5. Determine NPR/safe staffing levels, using factors that reflect population needs and local contexts, specifically:
    a. Define nursing profession and skill mix with flexibility for local adaptation to population needs
    b. Facilitate local contextual adaptation through use of staffing calculations in addition to minimum ratios
    c. Incorporate approaches to address rurality and geographic variation
    d. Plan for fluctuations in health service demand

INTRODUCTION AND BACKGROUND

Safe and appropriate nurse staffing, including through nurse-patient ratios (NPRs), are associated with improved patient and nurse outcomes (1). NPRs are prescriptive minimums for specific units or settings, reflective of varying patient care needs and nursing care guidelines across different settings. They are expressed as ratios (e.g., 1:4, 1 nurse per 4 patients). NPRs are typically stated as minimums, as additional nurses are often needed to meet patient safety measures and operational duties. In BC and Manitoba, language used in safe staffing mandates specifically use the term "minimum NPR" (or "mNPR") to reflect the intended use of NPR as minimum staffing. Safe staffing refers to a broader set of policy approaches that mandate or prescribe staffing methods, tools and/or monitoring requirements, without specific NPRs. While safe staffing approaches often result in a ratio of nurses to patients, these approaches do not stipulate specific minimum NPRs. Therefore, in this report, NPRs and safe staffing policies are considered distinct approaches as consistent with previous research on nurse staffing (1,2). There is a range of policy mechanisms for NPRs and safe staffing, including through legislation, mandated approaches (e.g., memorandums of understanding or employer/industrial agreements) and guidance- or framework-based recommendations.

With growing interest worldwide in establishing legislation for NPRs and safe staffing, stakeholders — including nursing unions, professional associations and policymakers — have leveraged the legislative successes of early adopters. For example, in Australia, the states Queensland and Western Australia implemented their respective policies building on the experience of Victoria's pioneering NPRs legislation (3,4). Across the UK, the Royal College of Nurses engages in ongoing advocacy for the expansion of safe staffing legislation in England and Northern Ireland, referencing successful implementation of legislation in Wales and Scotland (5).

Efforts to establish NPRs and safe staffing policies are also underway in Canada. In BC, early implementers drew lessons from Australia and the US, most notably California and Oregon, where NPRs are legislated. In 2023, BC became the first Canadian province to begin implementing mandated mNPRs (6). Pre-implementation research conducted in BC formed the first arm of a planned pre-post evaluation; the development of the NPR approach was informed by academic and policy research, along with input from clinical and operational staff (7,8). Other provinces are advancing efforts to establish and implement safe staffing and NPRs. In Nova Scotia, work is ongoing to implement the Nurse Staffing and Skill Mix Framework mandated through a 2023 provincial collective agreement with the Nova Scotia Nurses' Union and employers (9). This framework involves unit-level calculations to determine nursing hours per patient day (NHpPD) requirements. As recent as June 2026, the Manitoba government passed legislation to enact NPRs (10), which was informed by substantial work and recommendations by the Manitoba Nurse-Patient-Ratio Sub-Committee of the Joint Nursing Council (11).

Although implementation of NPRs in Canada is currently limited to a few provinces, momentum is growing in other provinces and territories. Building on current and previous work describing NPR and safe staffing legislation in Canada and other countries (1,12,13), this rapid review aims to: 1) examine and compare NPRs and safe staffing legislation and policies in selected peer international jurisdictions; and 2) propose policy considerations for implementing and enforcing NPRs and safe staffing policies in a Canadian context based on international evidence.

METHODS

We conducted a rapid jurisdictional review to explore the policy and legislative frameworks for safe staffing and NPRs in select peer jurisdictions.

Comparator jurisdictions were considered based on similarities to the Canadian context. This context includes: the role of federal/national involvement in NPRs and safe staffing; health system structures; nursing regulations and roles; geography; and the presence and diversity of safe staffing and/or NPR policies and documented changes since the Canadian Federation of Nurses Unions' (CFNU) 2024 evidence report (1).

Selected jurisdictions are Australia, Germany, the UK and the US. For the US, we included the states of California and Oregon as they were the first states to comprehensively legislate and implement specific NPRs in hospital settings. We also focused on nurse staffing policies in acute care settings because such policies in other sectors, such as long-term care (LTC), have been implemented separately across many peer jurisdictions and/or have yet to be meaningfully implemented and evaluated (see Appendix A or an overview of LTC policies reviewed).

Targeted literature searches were performed in Google, Google Scholar and Scopus to identify relevant academic and grey literature. Government (e.g., federal and state-level) health agencies' websites for each jurisdiction were searched, as well as the reference lists of relevant studies and sources provided by key international experts.

A data extraction template was developed based on preliminary literature review to capture:

- Policy type (i.e., legislation, mandate, guideline or framework);
- Whether the focus is on NPRs or broader safe staffing approaches;
- Which health care professionals are involved;
- The scope of the health care settings included;
- The frameworks and tools used (if applicable);
- Consideration of skill mix;
- Approach to reporting, compliance and enforcement; and
- Consideration of patient and nursing outcomes.

Using the extracted data, four case summaries were drafted and sent to international experts (1-2 per jurisdiction) for validation via email. Experts reviewed the summaries to assess accuracy, address any knowledge gaps, and supplement information that may not be readily accessible. International experts included those with expertise as health systems researchers in the relevant jurisdictions, and in some cases their clinical experience, as well as their ability to review the case summaries. All feedback was provided by email. The analytic overview and policy considerations were then constructed from the case summaries and supplemented with input from the CFNU project team.

A targeted search of NPR/safe staffing policies among Canadian provinces was also conducted using similar key variables from the data extraction templates to facilitate comparisons and contextualize policy considerations for Canada.



LIMITATIONS

This rapid review aims to provide an update and in-depth review of NPRs and safe staffing approaches in select jurisdictions to inform policy considerations for the Canadian context. This review focuses on acute care in hospital settings; thus, policies applicable to other health sectors (e.g., long-term care and community settings) were not extensively captured. Furthermore, this review only distinguished between public vs. private acute care settings if explicitly stated in the respective policies.

We relied on publicly available academic and grey literature, and insights from international experts. Non-disseminated internal organizational documents that may provide more up-to-date information or details on policies were not included. This was mitigated in part by international expert review of the international case summaries and insights provided by the CFNU. International experts were purposively sampled leveraging the network of the North American Observatory on Health Systems and Policies (NAO), with the intent to validate findings and address any knowledge gaps.

The synthesis reflects the policies and source materials available during data collection. Therefore, amendments to the policies that have evolved since data collecvtion are not reflected in this review.

This review may serve as a foundation for more in-depth case studies to examine a wider range of perspectives, including key stakeholder consultations.

ANALYTIC OVERVIEW

Health system governance

The distinct health system governance arrangements in each of the reviewed countries and jurisdictions shape how health services and nursing are organized. A brief overview of each jurisdiction is provided for contextual comparison of NPR and safe staffing policies (Table 1).

In Canada's decentralized health system, each province or territory is responsible for the administration and delivery of health services, which includes delegating the self-regulation of nursing professions to each P/T professional college through legislation (22). Canada's nursing workforce structure is broadly comparable to the four jurisdictions reviewed. Each P/T professional nursing college regulates nursing designations and scope of practice, with registered nurses (RNs) making up the largest regulated workforce in Canada. Licensed practical nurses (LPNs) in Canada (referred to as registered practical nurses in Ontario) and the US are similar to enrolled nurses (ENs) in Australia (15). Additional regulated roles in Canada include nurse practitioners (NPs) in all Canadian P/Ts, registered psychiatric nurses in all P/Ts except Ontario, Quebec and New Brunswick (22,23), and midwives, who are regulated as a primary care provider inmost P/Ts. While midwifery is not a feature of this review, some of the international safe staffing policies apply to both nurses and midwives and are regulated by the same council or board.

Specialized and advanced practice nursing roles, as well as nursing assistant roles, are also common internationally. For example, there are nursing specialization roles in pediatrics or geriatrics in Germany, and advanced practice RNs in the US. However, these specialty or advanced practice roles are not specifically included within the NPRs or safe staffing policies reviewed. Nursing assistant roles typically involve certifications rather than licensing by nursing boards, such as certified nursing assistants (CNAs) in the US or assistants in nursing in Australia, and work under supervision of a licensed RN.

In acute hospital settings, nurses work as part of a broader health care organizational context that includes physicians, allied health professionals, and hospital and administrative support staff. Although these additional roles are beyond the scope of this review, recognizing the broader health care team structure, including its composition, educational mix, cohesion and professional relationships, is important because these factors can influence nursing workload, staffing requirements and, ultimately, patient outcomes (1).

Table 1. Overview of health systems, nursing regulations and select nursing roles

Jurisdiction	Health system overview	Nursing regulation	Nursing roles	
			Registered nurses	Licensed practical nurses
Australia	The health system is jointly governed by the federal (Commonwealth) and state/territorial governments, with shared responsibilities for funding, regulation and operation of the health system (14).	Nursing roles are professionally self-regulated, and protected titles are regulated by the national Nursing and Midwifery Board in partnership with the Australian Health Practitioner Regulatory Agency (Ahpra).	**Registered nurses (RN):** graduate of three years full-time tertiary education or through master's degree, prepared as generalist nurses that practice across health settings (15).	**Enrolled nurses (EN):** graduate of vocational training program, practice under the supervision of an RN, nurse practitioner or midwife (15).
Germany	Health system is overseen by the federal Ministry of Health (*Bundesministerium für Gesundheit,* BMG), with each of the 16 federal states (*Länder*) managing hospital planning and public health services (16).	Some variation in regulation of the nursing profession across the country: states are the main regulators, with some examples of regional governments that have established self-regulatory bodies, and all nursing titles are protected under federal law.	**Registered nurses, general care (*Pflegefachfrau/ Pflegefachmann*):** generalist-trained nurses that may work across areas of nursing practice; complete 3-year post-secondary education programs (17).	Not applicable

Jurisdiction	Health system overview	Nursing regulation	Nursing roles	
			Registered nurses	Licensed practical nurses
UK	Health care services planning and delivery is devolved to the respective four nations (England, Scotland, Wales and Northern Ireland), where local service planning is delegated to respective local health boards (18).	Nursing titles are protected and regulated by the UK-wide Nursing and Midwifery Council.	**Registered nurses (RN):** licensed and professionally self-regulated to provide care as generalists across health care settings; are graduates of approved education training programs (19).	**Registered nursing associates (RNA, England only):** practice in capacities between RNs and health and care assistants; educational preparation includes achieving certificate or recognition of experiential learning (19).
US (Oregon and California)	The health system is financed and delivered through private insurance models and public programs that are federal and state-led (20), with a combination of federal and state oversight.	State-led Nursing Regulatory Bodies are responsible for nursing licensing, regulatory action and scope of practice, with all bodies members of the National Council of State Boards of Nursing (21).	**Registered nurses (RN):** Graduates of a diploma, associate or bachelor's degree programs (based on state requirements) and must pass NCLEX-RN exam.	**Licensed practical nurses (LPN) or licensed vocational nurses (LVN)*:** provide basic patient care under the guidance of an RN, APRN or physician; must graduate from a practical nursing program and pass the NCLEX-PN.

*LPNs are referred to as LVNs in California and Texas only.



Policy overview

Across the selected jurisdictions, policy approaches varied both in the type of strategy employed (NPRs and broader safe staffing policies) and the mechanisms used to implement them. These mechanisms ranged from legislation and mandates (e.g., memoranda of understanding or employer/industrial agreements) to recommendation/guidance-based approaches (Table 2).

NPRs were identified as legislated or mandated approaches in Germany, Australia and the US (California and Oregon). In Germany, NPRs are legislated at the federal level through the Minimum Staffing Levels Ordinance for Nursing Staff (PpUGV), which mandates ratios for specific hospital units (17,24). In Australia, safe staffing policies are decentralized, with state-level mandatory NPRs as the dominant model. Of the five Australian states reviewed, three (VIC, QLD, SA) have legislated NPR policies, and two (NSW, WA) have mandated NPR policies through memorandums of understanding or industrial agreements. In California and Oregon, state-level NPR policies are legislated through *Assembly Bill 394* and House *Bill 2697*, respectively.

Safe staffing policies are used in the UK and Germany. In the UK, safe nurse staffing policy approaches are devolved to the four nations, as is the responsibility over health care services planning and delivery (18). Wales and Scotland have legislated safe staffing policies that do not include prescribed specific NPRs; England and Northern Ireland have guideline- and framework-based approaches that are recommended but not legislated or formally mandated. Germany introduced a safe staffing regulation in 2024 (PPBV) that compliments the legislated NPRs and requires hospitals to determine their nursing staff requirements based on patient volume and acuity guidelines using a prescribed staffing measurement tool (25,26).



Table 2. Summary of NPR/safe staffing policy approaches and mechanisms

Jurisdiction	Policy approach	Policy mechanism (legislated, mandated or recommended)
Australia	NPR	Legislated (VIC, QLD, SA) Mandated (NSW, WA)
Germany	NPR (PpUGV) and safe staffing (PPBV)	Legislated
UK	Safe staffing	Legislated (Wales, Scotland) Recommended (England, Northern Ireland)
US (Oregon and California)	NPR	Legislated

Abbreviations: NSW (New South Wales); PPBV (*Pflegepersonalbemessungsverordnung* — Nursing Staffing Assessment Regulation, Germany); PpUGV (*Pflegepersonaluntergrenzen-Verordnung* — Minimum Staffing Levels Ordinance for Nursing Staff, Germany); QLD (Queensland); SA (South Australia); VIC (Victoria); WA (Western Australia)

Key characteristics of policy approaches

Although there is significant variation across the policy approaches in the reviewed jurisdictions, focussing on the key policy characteristics allows us to compare them (Table 3). The following sub-sections summarize the key policy characteristics:

- Health care settings;
- Health care professionals included in the policies;
- Nursing skill mix; and
- Staffing methodologies.

Additional details and examples of each jurisdiction are provided in Appendix B.

HEALTH CARE SETTINGS

Across the jurisdictions, most of the policy approaches apply to hospital settings only, with a range of specifications and granularity outlined for specific units/wards. Scotland and Northern Ireland are unique in that their policies also designate nurse staffing in community health and social care settings.

Australia

In Australia, NPRs are specified by hospital unit and ward and differ by shift (day/afternoon/night), with each state specifying its scope of units and wards included. For example, Victoria adopts a granular approach, where ratios in acute care hospitals vary by hospital level, ward type and shift, and identifies when charge nurses must be scheduled as supernumerary — i.e., excluded from the NPR and without a direct patient care assignment (3). Western Australia's recent (2026) policy applies only to specific metropolitan hospital units, including variation in prescribed minimum NPRs across medical and surgical wards, and pediatric, neonatal and adult critical care (27).

Germany

In Germany, the PpUGV expanded mandatory staffing requirements (which previously only existed for neonatal intensive care units (24)) to include hospital units deemed "nursing-sensitive", defined as units where at least 40% of patient cases fall within specific diagnosis-related groups (DRGs) (28). Since its inception, PpUGV has been amended several times to update ratios across specific hospital units and expand the list of regulated units. Under the PpUGV, NPRs are specified by hospital unit and differ by shift (day/afternoon/night), with higher-acuity settings reflecting ratios where nurses are responsible for fewer patients with higher nursing care needs (28).

The UK

In Wales, the *Nurse Staffing Levels (Wales) Act 2016* defines how specific hospital wards are to use the mandated methods to determine the adequate number of nursing staff required, and to take reasonable steps to maintain these staffing levels (29). The Act applies to specific hospital wards, including adult acute medical and surgical inpatient wards, and pediatric inpatient wards (30). The All-Wales Nurse Staffing Programme, reporting to the Chief Nursing Officer, supports health boards to meet the requirements of the Act through provision of guidance, standards and tools (31).

In contrast to the other reviewed jurisdictions, Scotland's safe staffing legislation *(Health and Care (Staffing) (Scotland) Act 2019)* encompasses a broader array of health care settings. Specifically, it applies widely to providers of health care services, including Health Boards and National Health Service (NHS) National Services Scotland, covering hospitals and community health providers, as well as care services — including care home services, nurse agencies, childcare agencies and more (32).

In England, adult inpatient wards in acute hospitals are specified in the recommended safe staffing guideline (NICE, 2014 (33)) and the *Safer Nursing Care Tool* (34).

In Northern Ireland, the refreshed *Delivering Care Policy Framework* published in 2026 provides guidance for nurse and midwife workforce planning in hospitals and community settings, but does not specify which community settings are applicable (35).

The US (California and Oregon)

In California, there are legislated minimum NPRs for general acute care hospitals through *Assembly Bill 394* (1999), and for acute psychiatric hospitals on an emergency basis through Senate *Bill 596* (36). The NPRs are prescribed by specific unit or specialty type, ranging from 1:1 to 1:5 (see Appendix B) (37,38). Charge nurses are supernumerary if engaged in activities other than direct patient care (37). The NPRs in California hospitals do not vary across shift; the specific ratio per unit or specialty type are to be upheld at all times without variation (38). Hospitals are required to establish and document a patient classification system (PCS) to determine nursing care requirements above the minimum NPRs (39).

In Oregon, minimum NPRs and other nurse staffing requirements for specific hospital units are legislated through House *Bill 2697 Hospital Staffing Law* (2023) (40). Hospitals must establish nurse staffing committees responsible for creating nurse staffing plans that incorporate unit-specific NPRs for direct care RNs (40). These committees must include equal representation of direct care nursing staff and management (40). Staffing plans must follow specific directives, including specifying where and when NPRs are not applicable or can be deviated from. The legislation outlines instances where potential deviations are permitted, a design feature the Oregon Nurses Association notes is intended to promote continuity in appropriate staffing and enforcement (41).

HEALTH CARE PROFESSIONALS INCLUDED IN THE POLICIES

The policy approaches vary in specifying the health care professionals of focus. These range from policies with a narrow focus on RNs (and midwives, where applicable), such as in Australia, Germany, Wales and California, to safe staffing polices that include a broad range of health care professions, such as in Scotland (see also Table 1). Some jurisdictions also include ratios for unregulated health care providers or nursing assistants (e.g., Oregon). Identifying the range of health care professionals as a comparator is important as it recognizes if and how the various policy approaches extend the notion of safe staffing beyond RNs.

Australia

In Australia, regulated nursing professions include RNs and enrolled nurses, which are similar to LPNs in Canada (15). However, across the Australian states reviewed, the majority of the policies refer broadly to "nurse", without distinguishing between registered and enrolled nurses (3,42-44). This may permit flexibility within local contexts to determine the appropriate nursing staffing composition to meet patient needs, address acuity of the context and apply professional judgement while meeting the mandatory minimum NPRs.

Germany

In Germany, the PpUGV and PPBV regulations define nursing staff as registered nurses and nursing assistants (28,45). RNs are licensed in accordance with the *Nursing Professions Act*, which also includes nurses who acquire additional training in pediatrics or geriatrics (46). Nursing assistants require training and licensing in state-regulated nursing assistant courses (45). The PPBV regulation also identifies midwives as health care professionals when determining staffing levels in obstetrics units.

The UK

In the UK, the policies across the four nations vary in specifying the health care professionals of focus.

Uniquely, Scotland's *Health and Care (Staffing) (Scotland) Act 2019* has a much broader scope, compared to the rest of the UK, defining the legal duties on the Scottish government and on health service providers to ensure safe and appropriate health care staffing is in place (47). This legislation applies to all health care staff within applicable NHS Agencies and Health Boards, across all professional disciplines, including "clinical staff and staff who provide clinical advice" (47). The stated rationale for the broad scope of the Act (2019) is to build on existing workforce planning in Scotland, support local flexibility in decision-making and support innovation in health care service delivery (32). The Scottish government positions the Act (2019) as different from prescribed minimum staffing or specific ratios, in favour of shared staff decision-making and evidence-based use of the *Common Staffing Method* (CSM) (32). For specific settings of health care provision, staffing tools are mandated (32,48,49). In these specified settings, staffing of particular employees, mainly RNs, must be calculated using the CSM and associated setting-relevant tools (32).

In Wales, safe nurse staffing legislation exclusively pertains to the staffing of RNs (50).

In England and Northern Ireland, guideline- and framework-based approaches focus on supporting nurse staffing, including decision-making support for incorporating nursing assistant/unregulated health care provider roles (34,35).

The US In California, NPRs apply to licensed nurses, including registered nurses and licensed vocational nurses which are similar to licensed practical nurses in Canada (37). In Oregon, the legislated NPRs apply to registered nurses; separate staffing ratios are established for certified nursing assistants in acute general hospitals as a maximum of 1 CNA to 7 patients for day/evenings, and no more than 1:11 for night shifts (40).

NURSING SKILL MIX

Skill mix within the nursing profession is commonly defined as the proportions of different designations of nurses necessary during a shift, based on factors such as qualifications, scope of practice, experience, patient acuity, area of care and others (51). Skill mix can be a specified component of the NPR and safe staffing policies (e.g., as in Victoria, Australia), and/or considered within the recommended or mandated staffing methodologies and tools (as in Wales and Scotland) (48,52). More flexible skill mix directives within staffing methodologies may allow implementers to adjust staffing decisions based on their local contextual needs and capacity (53). Prescriptive skill mix specifications within NPR policies may establish expectations or guardrails for nursing team composition, such as limiting RN substitution. Research conducted in the US found that reductions in the proportion of RNs among the total nursing staff were associated with lower quality of care and greater financial implications (54).

Australia Since most state-level policies in Australia apply a single ratio for nurses, without distinguishing between RNs and ENs, skill mix between these professionals is not always specified or addressed. Other nursing support staff (e.g., assistants in nursing) are determined at the ward/unit level. In Queensland and Western Australia, minimum NPRs are intended as the staffing floor; complementary staffing tools (described further in "Staffing methodologies") that incorporate skill mix considerations are required to determine additional nurse staffing above these minimums based on local context (42,55).

There are examples in Australia where skill mix specifications are defined. In Victoria, the Act specifies that no more than 20% of staff counted toward ratios in particular wards may be ENs, including acute and general medical-surgical wards (56). In New South Wales, higher-acuity emergency departments are required to have a minimum of 85% RNs to fulfill the NPRs (57).

Germany The PpUGV regulation specifies the maximum percentage of nursing assistants permitted across the respective NPR-based hospital areas (28). Some specialty areas further require specific proportions of nurses with specialized training, such as pediatric heart surgery and in emergency departments (58,59). The PPBV regulation also stipulates that the total hours worked in a calendar month for nursing assistants may not exceed 20% of the total staff hours in normal wards for adults, 10% in normal wards for children, and 5% in intensive care wards for children (45).

The US In California, NPR legislation includes skill mix specifications stipulating that up to 50% of the nurse staffing number can be met by LVNs (37). In Oregon, skill mix specifications are expressed through directives for the mandatory nurse staffing plans. With written agreement from the hospital nurse staffing committee, hospitals may implement "innovative care models" that allow up to 50% of the staffing requirement to be met by other clinical care staff in place of RNs (40). Notably, a recent study in the US found that substituting RNs with other lower-cost personnel in health care teams was associated with poorer patient safety outcomes and lower patient satisfaction (54).

STAFFING METHODOLOGIES

Staffing methodologies are the methods or tools used to determine the number of nurses required to adequately staff a particular setting. Methodologies consider a variety of indicators and contextual factors with statutory guidance to direct how designated individuals should apply them.

Across the jurisdictions reviewed, several policy approaches incorporate staffing methodologies; they draw on multiple inputs, often in conjunction with NPRs, including but not limited to professional nurse judgement, benchmarking, patient acuity and timed-task approaches (60). For example, in all four UK nations, a "triangulated approach" that integrates multiple data sources or tools is common, including patient acuity/needs, care quality indicators and professional judgment (31,35,48,61). Notably, many of the tools leverage nursing clinical expertise, including direct care nurses and nurse managers, to capture the situational nuance and experience required to inform appropriate staffing levels (62).

Australia

In addition to the legislated minimum NPRs, Queensland and Western Australia use complementary staffing tools to determine staffing needs above these minimums (55,63). In Queensland, the mandatory ratios are considered a "safety net", with additional staffing determined annually using the Business Planning Framework (BPF), an industrially mandated methodology that incorporates supply and demand calculations as well as contextual factors (55,64). Western Australia uses a similar approach through the Workforce Planning Framework Service Profile (adapted from the BPF), which is completed annually and also when requesting staffing levels above the mandated ratio (63). Health service providers are directed on the frequency of Framework completion (e.g., on transition to ratios in Western Australia and thereafter annually).

Germany

In Germany, the PPBV regulation directs hospitals to use the PPR 2.0 staffing measurement tool, which considers two patient care level categories (i.e., General Care (A1-A4) and Specialized Care (S1-S4)) when determining ward-specific nurse staffing numbers (26). Patients must be classified into a category, with each category assigned a time value that determines the required staffing levels (26).

The UK

England and Northern Ireland prescribe endorsed (though not mandated) staffing calculation tools that take into account patient-, staff- and context-related factors to establish nursing staff requirements for a unit/ward (35,65). In England, *NICE* provides shift-by-shift guidance for determining nurse requirements in specific wards by considering patient, staff and ward factors, identifies safe staffing "red flags", and offers organization-wide monitoring advice (61); the *Safer Nursing Care Tool* (SNCT) is used alongside the guideline to manage fluctuations in staffing levels. Northern Ireland's framework includes its Six Steps Methodology, which endorses the *Common Staffing Method* (CSM) to aid clinical leaders in considering patient needs, acuity levels and skill mix, and encourages the use of evidence-based tools such as the SNCT and *Birthrate Plus* (35).

In Wales and Scotland, in lieu of prescribed minimum NPRs, the legislated staffing methodologies (i.e., the *Triangulated Method* and *Common Staffing Method*, respectively) are required for hospital use when calculating nurse staffing levels (31,32). Both methods integrate patient acuity, quality factors or measures, contextual factors and professional judgement.

The US

California hospitals are mandated to incorporate a patient classification system to establish additional nurse staffing needs above and beyond the minimum legislated NPRs (39). The PCS that is implemented to determine nursing care requirements must be documented. State regulations mandate that hospital PCSs should involve RN assessment and consider patient care factors, including acuity, technological care requirements, care plan complexity and the skills of personnel required to perform the required care (39). Nurses must be involved in PCS development, and hospitals are directed to "develop and document a process by which all interested staff may provide input about the patient classification system" and the broader hospital staffing plan (39). Evidence and expert commentary suggest that the objectivity and validity of PCSs in determining staffing numbers has not been well established in the literature and highlights the need for meaningful nursing input and assessment of staffing adequacy (66,67).

In Oregon, nursing staffing plan requirements include various factors to be taken into account when determining the nursing services staffing plan (68). These include skill mix and specialized qualifications of nursing staff, patient needs, hospital census data and specialty nursing professional guidelines (68). No specific complementary staffing methodology was identified in the reviewed legislation.

Table 3. Summary of key policy characteristics

	Jurisdiction	Health care professionals specified	Units/settings	Frameworks/tools	Ratios	Skill mix specified?
UK	**Wales**	RNs	Hospitals (only adult acute medical and surgical inpatient wards, and pediatric inpatient wards)	Staffing methodology mandated: *Triangulated Method*	Not prescribed	No
	Scotland	RNs, midwives, medical practitioners	Hospitals and community settings	Staffing methodology mandated: *Common Staffing Method*	Not prescribed	No
	England	RNs and health care assistants	Adult inpatient wards in acute hospitals	Staffing methodology recommended: *NICE* guideline (2014) and SNCT	Not prescribed	Yes
	Northern Ireland	RNs and midwives	Hospitals and community settings	Staffing methodology recommended: *Refreshed Delivering Care Policy Framework*	Not prescribed	Yes
Australia	**New South Wales (NSW)**	RNs, ENs, midwives	Public hospitals	NHpPD; *Safe Staffing Levels* taskforce guidance	Minimum NPRs specified by units and shifts; charge nurse supernumerary in some settings	Yes
	Queensland (QLD)	RNs, ENs, midwives	Designated public hospitals (adult med-surg, mental health, maternity)	*Business Planning Framework*	Minimum NPRs specified across range of hospital units and shifts, supplemented by calculated nominal ratios	No

	Jurisdiction	Health care professionals specified	Units/settings	Frameworks/tools	Ratios	Skill mix specified?
Australia	**South Australia (SA)**	RNs, ENs, midwives	Public hospitals	No formal state-wide tools	Minimum NPRs specified by unit, shift and hospital category; charge nurse supernumerary	No; excludes assistants in nursing
	Victoria (VIC)	RNs, ENs, midwives	Public hospitals	Hospital classification algorithms	Minimum NPRs specified by hospital level, unit, shift; charge nurse supernumerary	Yes
	Western Australia (WA)	RNs, ENs, midwives	Designated public hospitals	NHpPD; transitioning to *Workforce Planning Framework*	Minimum NPRs specified by unit, shift; hands-free shift coordinator supernumerary	Yes
Germany		RNs and nursing assistants	Hospitals (specified units[1])	Staffing methodologies mandated: PPBV	Minimum NPRs specified across hospital units, shift (PpUGV)	Yes
US	**California**	RNs	Hospitals (specified units[2])	Patient classification system	Minimum NPRs specified by unit; charge nurse supernumerary	Yes
	Oregon	RNs, CNAs	Hospitals (specified units[3])	No formal state-wide tools	Minimum NPRs specified by unit	Yes

1. Specified units include: adult and pediatric ICUs; internal medicine and cardiology; cardiac surgery; neurology; neurological stroke; neurological early rehabilitation; geriatrics; general surgery, trauma surgery and orthopedics; pediatrics (general, specialized and neonatal); gynecology and obstetrics; otolaryngology; urology; rheumatology; and neurosurgery (see Table B3).
2. Units include operating rooms, emergency departments, critical care, pediatrics, medical-surgical and other specialty care units (see Table B4).
3. Units include trauma and emergency care, labour and delivery, ICU, operating rooms, intensive and intermediate care, post-anesthetic recovery, postpartum couplets, medical-surgical, oncology and telemetry (see Table B6).



Reporting, compliance and enforcement

For NPR and safe staffing policies, identifying the mechanisms for reporting and compliance, and measures in place for enforcement helps to understand how policies are being implemented, how stakeholders can identify if they are being upheld as intended, and what the processes are for non-compliance. Policy evaluation can be strengthened with clear reporting and compliance measures. Enforcement measures, in turn, can strengthen compliance with NPR and safe staffing policies by creating organizational imperative to adhere to policies (69).

Across jurisdictions, enforcement mechanisms for non-compliance with staffing policies include financial penalties and sanctions. Enforcement mechanisms were also identified at the unit or organizational level through processes such as committee escalations, where a designated internal group monitors and reviews instances of unit/ward non-compliance with NPR, provides targeted oversight and support, and directs mitigation strategies.

Mechanisms for flagging non-compliance are commonly initiated at the unit level through workload grievances raised by nursing staff and/or unions, or through a designated unit manager. Other non-compliance processes include those initiated through organizational oversight committee review and/or through external governmental regulatory body review.

Despite technical compliance with NPR, concerns have been raised by scholars and experts that additional staffing needs are not being implemented above the minimums as intended. One expert reviewer noted that in some contexts, NPRs are treated as "a ceiling, not a floor". Scholars have similarly highlighted the normative incentive for hospitals to minimize nursing labour costs wherever possible (70). Clear workload grievance processes and enforcement measures may help mitigate these risks.

Jurisdictions varied in terms of how the policies stipulate reporting and compliance mechanisms for staffing levels, as well as enforcement measures. Reporting and compliance mechanisms identified include financial penalties or sanctions, hospital/health board committee escalations and mitigation strategies, and public reporting of staffing levels. Table 4 summarizes reporting, compliance and enforcement measures across the jurisdictions.

Table 4. Summary of reporting, compliance and enforcement mechanisms

	Penalties or sanctions	Committee escalation and mitigation strategies	Public reporting of staffing levels
Australia	☑ (VIC, SA)	☑(QLD, WA)	☑ (QLD)
Germany	☑		
UK		☑ (Wales)	☑ (England, Scotland*, Wales)
US (California and Oregon)	☑ (California, Oregon)		

*Scotland requires public reporting by Health Boards on compliance with "duty to ensure appropriate staffing" as opposed to actual staffing numbers (e.g., use of CSM and efforts toward these duties).

Australia Compliance requirements in Australian states with NPRs include a mix of local reporting and identification of failure to meet NPRs, with oversight from state organizations. States with currently ongoing implementation, including South and Western Australia, have elected to defer reporting and compliance measures until a moratorium or grace period has elapsed (27,44). For example, in Western Australia, the four months immediately following a ward or unit's transition to NPRs is considered a grace period (42). Queensland Health publicly reports state-wide NPR compliance quarterly on a public facing governmental website for health system performance in acute medical and surgical wards. These reported rates are based on self-reported hospital and health boards data (72).

In Victoria, hospital operators are required to maintain documentation demonstrating compliance with NPR legislation, with oversight by the Department of Health (3). The planned approach in Western Australia is similar, as health service providers will be required to produce annual NPR performance reports that will be overseen by the Chief Nursing and Midwifery Office, on behalf of the Department of Health (42).

In several Australian states with NPR policies, failure to meet NPR requirements can be reported by nursing staff. For example, in Western Australia, there is a compulsory non-compliance form that is filled out by the charge nurse each occurrence, with required documentation of mitigation strategies enacted (42). Queensland and Western Australia have requirements for hospital-level committees responsible for compliance oversight. Such committees are responsible for monitoring non-compliance, generating strategies for mitigating non-compliance, and providing support and enhanced oversight for repeated or continued non-compliance (42,55,73). These committees do not require direct care nurse involvement (42,55).

In Victoria, financial penalties may be levied against hospital operators for non-compliance after completion of a local dispute resolution process and review by the Magistrates' Court (3). A similar approach is planned in South Australia once a moratorium period has elapsed following implementation (44).

Germany

In Germany, hospitals are required to report staffing levels to the Institute for the Hospital Remuneration System (InEK) quarterly under the PpUGV regulation (mandated NPRs), and monthly under the PPBV regulation (mandated safe staffing policies) (17,25). Under the PpUGV, hospitals can face reimbursement reductions if the reported staffing levels are below the minimum NPRs (17). However, there are exceptions to the sanctions, such as during significant increases in patient cases due to epidemics and major incidents (28). The PPBV does not currently implement enforcement mechanisms and will not establish target staffing levels or sanctions for non-compliance until the system is fully operational and sufficient evaluation has been conducted (25).

Recent hospital reform policies have set stricter compliance measures for NPRs set by PpUGV. Specifically, the *Hospital Care Improvement Act* (KHVVG) is a major reform that was implemented in 2025, aimed to partially substitute the DRG-based hospital payment model with flat fees (74). KHVVG creates 61 hospital service groups based on staffing, equipment and department (e.g., internal medicine, stroke unit, etc.) that partially determine reimbursement rates (74,75). The federal states assign hospitals to specific service groups, with reimbursement based on residual DRGs, flat fees and nursing staff levels. According to international expert reviewers and a federal parliamentary document, a 2026 amendment to the KHVVG outlines how minimum nurse staffing levels will be linked to the allocation of these hospital service groups (76). Thus, as PpUGV will be a binding criterion to the hospital service groups, enforcement of minimum nurse staffing levels is expected to be strengthened.

The UK

In Wales there is mandatory public reporting of nurse staffing levels, and each local health board and NHS trust are required to submit a nurse staffing levels report to Welsh ministers (29). The ministers then collate and publish a summary report that is laid before the National Assembly for Wales (29). The three-year reports are publicly available online (71). Uniquely, Wales also mandates that patients are to be informed of nurse staffing levels on the unit where non-compliance is occurring, evoking a component of public accountability with compliance reporting (50). The onus for identifying instances of non-compliance lies with nurses in Wales, as the unit nurse in charge documents when there is a deviance from the planned shift roster and the steps that were taken to maintain the nurse staffing level (78). Instances of non-compliance are reviewed and addressed by the health boards/trusts. The national *Oversight and Escalation Framework* is then applied to facilitate staffing arrangements that fulfill safe staffing legislation requirements (79). In Wales there was deferred compliance and enforcement of the safe staffing policy during implementation, although this coincided with complexity and health services strain during the COVID-19 pandemic; deferment has subsequently ended (80).

In England and Northern Ireland, individual NHS trusts are responsible for monitoring and self-reporting on nurse staffing levels (77,12,35). In England, under section 254 of the *Health and Social Care Act* 2012, NHS trusts providing inpatient services must monitor ward-level scheduling data for RNs, midwives and unregistered care staff using the care hours per patient day (CHpPD) and nurse staffing fill rate data collection (81). The purpose of the data collection is to "obtain re-assurance that wards are being safely staffed and to support organisations with benchmarking of their staffing and identify areas of potential unwarranted variation" (81). The Care Quality Commission (CQC) in England is the regulatory body responsible for oversight of health and social care providers for ensuring adequate staffing to meet care needs (34). However, the literature does not clearly explain how the CQC defines and upholds adequate staffing levels, raising questions about how staffing levels can be enforced. In Northern Ireland, as outlined in the *Refreshed Delivering Care Policy Framework*, various organizations are responsible for upholding and reporting safe staffing levels, including roles across health and social care trusts, the Department of Health, and the Regulation and Quality Improvement Authority (35).

In Scotland, health service providers are required to self-report how they have fulfilled their duties to ensure appropriate staffing. Reporting includes an overall assurance rating for each duty (i.e., substantial, reasonable, limited or no assurance) and free-text fields for describing the actions taken to comply with the duties, methods to monitor compliance, and areas of success, learning and challenges or risks (32). These self-reports are publicly available, increasing transparency and potential for public scrutiny, and Scottish ministers collate the self-reports

into a larger report submitted to Scottish Parliament (32). However, it is unclear how compliance for the legislated safe staffing duties is achieved. The Care Inspectorate is the regulatory body in Scotland that oversees local service providers and uses self-reported data to identify "low-performing health service providers/trusts", regarding Act duties for targeted support/mitigation and increased oversight (32). Lake et al. conducted a cross-sectional survey study of Scottish nurses shortly after the *Health and Care (Staffing) (Scotland) Act* was implemented in 2024, and findings indicated that in most nurses' perceptions and assessment, the goals of the legislation were unachieved at that time point. The authors note that despite statutory guidance issued by the Scottish Government describing the broad duties required of health service providers, it is unclear how individual providers/trusts determine achievement for each of the duties, as pragmatic benchmarks are notably absent (82).

The US

The main enforcement mechanism for NPR compliance in California and Oregon is financial penalties (38,40). In California, the California Department of Public Health has the authority to levy administrative penalties on hospitals for non-compliance with NPRs, including the possibility for USD$15,000 for the first violation and $30,000 for the second (and subsequent) violation(s) (83,84). The Oregon Health Authority can apply fines to hospitals with confirmed staffing violations, which escalate with increasing offenses. Separate fines may be levied for missed break violations (forwarded through to the Oregon Bureau of Labor and Industries) (41). The Oregon Health Authority oversees that hospital nurse staffing plans are submitted and can apply fines for non-compliance (68).

In California and Oregon, hospitals are required to maintain documentation of staffing numbers (actual and planned) that can be reviewed by state regulators for compliance. Hospital staffing compliance documentation is not publicly reported. Staff-initiated complaint processes to flag non-compliance with NPRs are common in both states. In California, violations of NPR law can be reported by nurses through various mechanisms, including union-issued reporting forms, hospital patient safety reporting tools, and by written complaints to the state health regulator, the California Department of Public Health (38). Similarly, in Oregon, nurses and other hospital staff can submit complaints of NPR violation to the Oregon Health Authority, the state health regulator, which is responsible for investigating these complaints (40).



Evaluation of patient and nurse outcomes and indicators within NPR and safe staffing policies

The collection and monitoring of patient and nurse outcome measurements may be outlined, structured and required by the NPR/safe staffing policy to support ongoing policy evaluation, or it may be more ad-hoc and driven by external evaluators using existing indicators or evaluations internal to hospitals/health service organizations. Only in Wales is the former approach seen, though evaluation and indicator collection is important in all jurisdictions. The literature identified a wide array of indicators that may be captured at the hospital or organizational level (85).

Wales was the only reviewed jurisdiction that explicitly describes and links nurse-sensitive outcomes to the calculation and evaluation of nurse staffing levels. The main outcomes considered for nursing staffing compliance for in-scope adult units include pressure injuries, falls and medication errors (infiltration/extravasation injuries are also considered outcomes in pediatric settings) (30). In the first three-year reporting period, the number of "serious incidents" (i.e., the outcomes relevant for adult units, as well as complaints about nursing care) were evaluated on its association with nurse staffing levels (86). The report concluded that due to the short evaluation period, no causal links could be established at the time between the Act's introduction in 2016 and impacts to instances of patient harm (86). This approach by a Wales governmental body to compare outcomes with safe staffing legislation is unique among the approaches reviewed.

Although not legislated, in England and Northern Ireland, technical guidance and reporting frameworks direct hospitals/NHS trusts to report on various nurse-sensitive outcomes. In England, the *Safer Nursing Care Tool* identifies safe nursing indicators as "red flags" to bring attention to situations where safe staffing levels need to be reviewed (61). In Northern Ireland, "safety quality outcomes" are one of many factors outlined in the *Common Staffing Method* when developing staffing requirements (35).

In Scotland, the safe staffing legislation places on the Scottish Government broad duties related to safe staffing in health services, including ensuring an adequate supply of health care workers. Outcomes taken into account include establishing workforce capacity and numbers of care professionals. As across the UK, the Scottish Government sets and publicly reports the annual intake number of undergraduates in health professional education programs, including nursing, midwifery and medicine (87,88). Uniquely, the Scottish government reports on their duties related to nursing and health care workforce capacity support, clearly linking the safe staffing legislation to workforce data (47).

INDEPENDENT RESEARCH ON NPR AND SAFE STAFFING POLICIES AND PATIENT OR NURSE OUTCOMES

Examples of independent research on NPR and safe staffing and patient/nurse outcomes in the reviewed jurisdictions were identified. For example, studies specific to NPR and the impact on patient and nurse outcomes were conducted in Queensland, Australia (Box 1). Other examples of research on outcomes related to NPR and safe staffing in peer jurisdictions include studies on hospital mortality, readmission, sepsis, respiratory failure and pneumonia in Germany (89); hospital mortality, length of stay, serious adverse events and patient departures against medical advice in the US (90–93); and hospital mortality in England (94,95).

US RESEARCH

As the first US state to implement legislated NPRs, California has the longest timeline and breadth of NPR policy evaluation and research conducted, with several studies performed in the immediate years following the 2004 implementation. For example, researchers found that in California, after the implementation of NPR legislation, there was higher licensed nursing employment in most California hospitals (96) and higher RN wage growth (97), without reductions in the proportion of RNs in the skill mix (98). In terms of nurse outcomes, a recent cross-sectional study of hospital-based RNs found that, compared to nurses employed in non-California hospitals, nurses employed in a California hospital reported lower rates of burnout, job dissatisfaction and intent to leave their employer (99). The mean number of patients per nurse was lower in California, compared to hospitals in other states (99).

Studies of the impact of NPRs on patient outcomes are more limited (100). A landmark study conducted in 2010 found that the NPRs mandated in California hospitals are associated with lower patient mortality (101). Moreover, a 2024 evidence report of 48 literature reviews further supports a link between nurse staffing and both nurse and patient outcomes (1).

A leading scholar on nurse-patient ratios and safe staffing policies, Dr. Linda Aiken, noted that an important learning from the California experience is the need for an independent prospective scientific evaluation of the NPR policy's impact (2). Baseline data collection of patient and nurse outcomes should be considered at the outset of policy development for comparison with data after policy implementation (2). Without baseline measurements of patient and nurse outcomes, challenges arise in attributing any post-implementation outcome improvements to the NPR policy (2).

In Oregon, safe staffing policy implementation is recent, including in medical-surgical units, where reductions in the number of patients per nurse from 5 to 4 came into effect July 1, 2026 (41). No published research conducted on Oregon's safe staffing law was identified; however, prospective evaluation, with pre- and post-implementation measures, is currently underway by the Penn Nursing Center for Health Outcomes and Policy Research at the University of Pennsylvania (1).

Box 1. Independent evaluation of NPRs in Queensland, Australia

Although not incorporated within the policy framework itself, independent research in Queensland examined the effects of NPR legislation on patient/nursing outcomes. Two major studies are highlighted.

Study 1: Lasater et al. (2025)

- **Design:** quasi-experimental interventional study to compare various nurse outcomes, patient safety measures and quality of care indicators among hospitals using a minimum nurse staffing policy vs. hospitals not using a minimum nurse staffing policy (90).
- **Outcomes assessed:**
  - Nurse outcomes: burnout, job dissatisfaction, intent to leave
  - Care quality and patient safety: nurse-rated quality of care, patient safety, infection prevention, quality of end-of-life care, staffing levels
- **Key findings:** hospitals with the staffing policy were associated with improvements in nurse staffing, nurse well-being and job outcomes, and quality of care and patient safety.

Study 2: McHugh et al. (2021)

- **Design:** prospective panel study to compare the effects of minimum NPRs on nurse staffing and patient outcomes in Queensland hospitals that implemented the minimum NPR policy, compared to hospitals that did not (91); outcomes were measured pre-implementation of ratios (baseline) and 2 years post-implementation.
- **Patient outcomes assessed:** 30-day mortality, 7-day readmission and length of stay.
- **Key findings:** hospitals that implemented the NPR policy experienced significantly lower mortality rates, stable readmission rates and greater reductions in length of stay, compared to hospitals without the NPR policy.

Contextual considerations for implementation of NPR

Several key considerations for the implementation of NPR, including challenges and mitigating factors, were evident across the reviewed jurisdictions. These include how jurisdictions have addressed geographic variation and rurality, nursing workforce supply and the use of supplemental agency nursing. These also include the role of nursing unions and professional associations in supporting NPR implementation, highlighting collaborative action as an enabling factor. Throughout this section, examples of how these contextual factors are being addressed in Canada are incorporated. The phased implementation of the NPR and safe staffing policies in some jurisdictions (e.g., Australia and the US) raises opportunities, such as learning from experience to inform subsequent rollout, as well as challenges, such as potential deferment of planned phases due to costs, complexity or other emergent priorities. These are described in further detail in Appendix B.

GEOGRAPHIC VARIATION

Similar to Canada, Australia's extensive rural and remote areas require unique considerations for health care delivery (102). Australia is also a federated nation, with governance and responsibilities for health services shared between the Commonwealth and the states/territories (14). Examining Australia's approaches to geographic variation and rurality in the context of NPRs provides an opportunity to identify relevant considerations for Canada.

At the federal level, the Modified Monash Model is used to guide resources, supports and workforce incentives for recruiting health care staff and reducing inequitable distribution of health care resources in rural and remote areas (103). The MMM is a geographical classification system ranging from metropolitan (MM1) to very remote (MM7), that is updated periodically based on national census data (104).

At the state level, Victoria provides an example of how the MMM is incorporated into NPR policy (105). Currently, hospitals are stratified into levels and schedules to guide the minimum NPR required. Hospitals in Schedule 1 include levels 1–4; level 1 hospitals are "typically larger metropolitan hospitals" with higher numbers of nurses assigned to care for patients, whereas level 4 hospitals are "commonly smaller rural hospitals" with the fewest numbers of nurses to patients (i.e., more patients per nurse) (105). Per the Victoria government algorithms document, the rationale for these levels is that patients who are in level 1 hospitals are more likely to have greater complexity and require more nursing resources, with the NPR reflecting nursing responsibilities for fewer patients (105). For example, for medical-surgical units, a level 1 hospital morning shift NPR is 1:4 + 1 nurse-in-charge, whereas a level 4 morning shift NPR is 1:6 + 1 nurse-in-charge (105).

In June 2026, the government in Victoria announced forthcoming legislation to implement a revised algorithm to reclassify ratios in some hospitals to improve NPRs and increase transparency in hospital classification (106). Hospital-level data, including hospital bed days, emergency department presentations and average hours of ICU care will be used in the calculation to determine the hospital level. The proposed algorithm incorporates the MMM to reclassify non-specialty hospitals; the higher the MMM classification, the higher the weighting for adjustment (105). The weighting is applied to the hospital-level data used to calculate the hospital level (106). If passed, the reclassification would result in 26 hospitals moving to a different level, thereby adjusting some NPRs and lowering patient loads for some nurses (106). The Australian Nursing and Midwifery Federation noted this change was facilitated by longstanding advocacy work by their organization to have hospital classifications reflect increases in demand in some hospitals (106).

In other Australian states, remote and rural areas have been specified for exemptions or alternative rules for NPRs. For example, in South Australia, small rural hospitals are exempt from the standard NPRs, instead requiring minimums of 1 RN and 1 other nurse or midwife for all shifts (44). In Western Australia, rural and smaller hospitals are exempt from initial NPR legislation, instead continuing with previous NHpPD prescribed methodology (42). In New South Wales, the MMM is considered with regards to agency nursing pricing policy, whereby the pricing is scalable based on rurality level of the hospital location (107).

In BC, where mNPR implementation is currently underway, considerations for geographic variation and rurality have been incorporated at the outset. The BC Ministry of Health in collaboration with the BC Nurses' Union created the mNPR Rural and Remote Hospital Sector Ratios framework to support implementation of mNPR across a range of rural health service delivery facilities (108). Similar to the Victoria (Australia) hospital levels, in the BC framework hospitals are grouped according to definitions based on factors such as volume of patients, number of hospital beds and type of care provided (108). Each group is assigned a "baseline ratio of nurses", and specific implementation instructions are provided regarding required nurse staffing increases to this baseline based on annual patient visits, seasonal variations in volume and other site-specific factors (109). The framework sets out expectations for rural and remote health facilities with regards to minimum NPR implementation, including these sites early in the provincial mNPR implementation process, with an aim of recruitment and retention of nurses at these sites (110).

NURSE STAFFING SUPPLY

Canada and many other countries continue to face nursing workforce shortages. Research consistently highlights the importance of retaining existing nursing staff and recruitment efforts to address staffing supply (111).

Substantial research has been conducted to understand nursing shortages and identify ways to support the nursing workforce, particularly since the COVID-19 pandemic (111,112). At the federal level in Canada, nursing retention has been identified as a key policy priority to support the health care workforce. Collaborative work with the nursing community resulted in the creation of the *Nursing Retention Toolkit*, which identifies safe staffing practices, such as NPRs, as a core strategy to support nurses and optimize working conditions (113).

Safe nurse staffing is broadly recognized as a strategy that directly supports retention and indirectly supports recruitment by improving working environments and making the nursing profession more attractive to prospective nurses (111,112,114). However, among the reviewed jurisdictions, existing nursing and health workforce supply shortages and vacancies have posed challenges to implementing NPR and safe staffing policies, in part due to the upfront need for increased staff to meet policy thresholds.

For example, in Scotland's first post-implementation report one year after the enactment of safe staffing legislation, the Scottish government indicated that recruitment and retention challenges were identified by almost three quarters of health authorities (88). Respondents indicated that these factors posed challenges to their ability to comply with their legislated safe staffing duties (88). These concerns, identified by service providers, were more pronounced in rural areas, where fewer care providers are available (88). Although not explicitly tied to the implementation of the safe staffing legislation, the Scottish government has numerous initiatives aimed at broadly supporting recruitment and retention of the nursing workforce, including for rural and remote areas. Baseline independent research conducted in the first three months following implementation suggested that many RNs did not perceive that the Scottish safe staffing legislation had an immediate impact on the overarching goal of safe and appropriate staffing (82). Further post-implementation research is needed to understand the longer-term impacts of the safe staffing approach.

Unlike in Scotland and Wales, safe staffing legislation has not been adopted in England or Northern Ireland. In England, a lack of political consensus and coordination on safe staffing, and the impacts of other competing priorities, have been identified as key barriers to legislated safe staffing or NPR policies (115). In particular, in a context of financial austerity and increased demands on health service providers (87), there has been limited political support for the financial investment required to support commitments for nurse staffing (115). In Northern Ireland, a consultation on safe nurse staffing legislation was conducted in 2024, with a bill expected to be introduced in the Assembly this year (116). The Royal College of Nursing in the UK continues to advocate for safe staffing legislation in England and Northern Ireland (5).

In Queensland, Australia, findings from a prospective evaluation study conducted by McHugh et al. (117) of minimum NPR policy in Queensland hospital medical-surgical wards indicated that the estimated costs savings related to reduced lengths of patient stay and readmissions were more than double the costs of the additional staff required for policy compliance. This study suggests that the upfront costs may be recouped, or returns exceeded, through positive improvements in patient outcomes. Although potential cost savings related to nurse outcomes (e.g., retention) were not captured in this particular study, researchers found that nurse outcomes, including burnout and job dissatisfaction, were improved post-NPR implementation in Queensland (118).

Similarly, in a survey study of nurses in California post-implementation of NPR, researchers found that a majority of direct care nurses and nurse managers agreed that nurse retention is improved by NPRs (101). A recent study by Muir et al. (99) found that, compared to nurses in other states, nurses working in California hospitals under NPR policy are less likely to report high burnout, job dissatisfaction and intent to leave their employer. The findings from this study suggest that improved nurse outcomes associated with NPR may improve retention (99).

In Germany, issues related to nurse staffing supply were also found in the literature, as the potential financial cost to increase nurse staffing levels was cited as an implementation challenge. Specifically, pilot testing of the staffing calculation tool PPR 2.0 (that was eventually implemented under the PPBV regulation) projected considerable staffing increases and personnel costs to fulfill ideal levels — specifically one additional full-time employee for approximately every eight patients (119). Scholars have noted an increasing replacement of specialized nurses with unregulated health care workers, amid chronic nursing shortages in a context of governmental financial austerity in Germany (119). Upfront financial costs, nurse staffing supply and potential for RN replacement with lower-cost staff are inter-related contextual considerations for NPR implementation.

AGENCY NURSES

In the context of limited nursing supply, several jurisdictions have used agency nurses to meet minimum ratios, whether initially or on an ongoing basis. Approaches to help mitigate potential costs of agency nurses include reporting on their use and cost, spending caps and employing a variety of staffing float pools or programs, and ultimately, as noted above, improving nursing retention. Monitoring of patient outcomes and agency nursing use may be useful to account for the potential for increased spending in the context of temporarily supporting safe staffing.

For example, in New South Wales, Australia, state politicians have reported delays in hiring the necessary nursing staff required to implement the new NPR policy; this has been positioned as related to both existing vacancies, workforce supply and cost (120). A NSW expert reviewer indicated that agency nurses are a financial cost of NPR in NSW at implementation (121,122). Broad critiques of agency nursing use during NPR implementation may not reflect the pre-existing staffing shortages that NPRs are meant to address. In NSW, a separate state-level policy specifically directs that all alternative options should be exhausted prior to agency nursing use engagement (107).

In California, in the initial two-year period after implementation, a survey of California nurses found that nurses reported an increased use of supplemental agency nurses in hospitals with mandated NPRs (101). Increased use of supplemental agency RNs is associated with hospitals' ability to meet mandated NPRs, which in turn leads to improved permanent nurse staffing (123). A study by Aiken and colleagues (124) suggested that the higher use of supplemental agency nurses may help to alleviate nurse staffing challenges that could positively impact patient outcomes; such agency nursing use did not appear to have negative impacts on patient mortality. Further, these authors suggest that poor work environment (rather than supplemental agency nursing staff use) may contribute to adverse patient outcomes as well as failure to retain or attract nurses (124).

In the UK, where safe staffing approaches, rather than specific NPRs, have been implemented, agency nursing has been addressed within some safe staffing policies. For example, in Scotland, if cost for an agency nurse exceeds 150% of what would be paid to a full-time-equivalent NHS employee, these occurrences must be reported to the Scottish Ministers (125). Within a quarterly period, reports must detail the frequency, cost compared to the equivalent non-agency nurse, and rationale for each instance that a higher-cost agency worker was used; these reports are publicly available (125). This strategy enhances public transparency and accountability for high-cost supplemental staffing, which employers could avoid by hiring the required number of staff to meet the Act (2019) duties.

Similar policies also exist in England, as agency shifts with hourly rates of £100 or more and above the price cap, or agency shifts with hourly rates below £100 but 50% above the published price cap, must be signed off by an executive and reported to NHS England monthly (126). However, as part of the *NHS 10-Year Workforce Plan*, NHS trusts are expected to make greater use of bank staff (i.e., a temporary staffing pool to cover shifts as needed — similar to a float pool) and lower agency spending when filling staff shortages (127). In Wales, specific rules are not detailed for the use of agency nurses with the safe staffing legislation but rather described as part of "reasonable steps" to maintain appropriate staffing levels (52). These policies suggest an intent to reserve agency nursing as a supplemental option to alleviate temporary gaps in staffing, rather than as a solution to fulfilling safe staffing mandates.

In Canada, there are also examples of strategies to address the use of supplemental agency nurses. In Manitoba, a Provincial Travel Nurse Team has been established. This innovative program aims to reduce the reliance on agency nurses and support provincial nursing capacity by hiring nurses within the public health system to a provincial nursing float pool team, with unique incentives for nurses working shifts at alternative sites to their primary work setting (128). In BC there is a similar program, called GoHealth BC (129).

Despite the complexity of the nurse staffing supply and the use of supplemental agency nurses that impacts NPR and safe staffing implementation, the reviewed literature suggests there are strategies that can be drawn on or developed to mitigate these challenges.

The role of unions, professional bodies and collaborative action

Collaborative action among nurses, unions, nursing professional bodies and other stakeholders has been a major driver of NPR and safe staffing policy development in many of the reviewed jurisdictions (13). Their coordinated action includes advocacy, participation in coalition groups, sponsorship of safe staffing legislation and more, with notable examples highlighted below.

Broadly, Australian nurses' unions have been heavily involved in advocacy for NPR legislation and for its expansion to further health care settings. Across states, union members have worked with state government bodies on NPR legislation, amendments, and supporting documents and processes. The unions also support their members with local dispute processes, in addition to education on NPRs and workplace expectations, such as through publishing guidance documents and FAQs. In those states with later adoption of NPR, nursing unions leveraged the experiences of Victoria and Queensland to critique their state governments for failing to keep pace. For example, the Australian Nursing Federation — Western Australia Branch advocated for NPRs modelled on Victoria to be embedded first in the enterprise bargaining agreement with the government and later into legislation, with their efforts including strike action in October 2022 (130). In New South Wales, strike action and a prosecution case filing in the Supreme Court against the State for inadequate staffing resulting in missed nursing care prompted the New South Wales government to create the Safe Staffing Levels Taskforce in 2023, which includes union leaders and oversees implementation of the state's commitment to minimum staffing requirements (120).

In Germany, a coalition group the Concerted Action for Care (*Konzertierte Aktion Pflege* — KAP) was formed in 2018 to improve the working lives of nurses (131). The group is led by three federal ministries (including the Ministry of Health) and is comprised of members from organizations such as nursing associations, health and long-term care insurance funds and patient advocacy groups. In 2019, the KAP was responsible for producing an agreement calling for the development and standardized usage of a nurse staffing tool, which later became an iteration of the PPR 2.0 framework implemented in the PPBV regulation in 2023 (25,119,131).

In California, AB 394 (1999) was sponsored by the California Nurses Association (132), and its passage facilitated by advocacy actions and lobbying by nursing unions and nurses for many years (66). Ongoing advocacy by the California Nurses Association and National Nurses United has facilitated the recent expansion of NPRs to acute psychiatric hospitals (133), in spite of consistent opposition from the California Hospital Association. At the time of the landmark NPR legislation, the American Nurses Association, which is a professional association, did not endorse minimum NPRs (134). However, their stance has

changed as the staffing crisis in the US has worsened and the evidence has grown related to the role of appropriate nurse staffing in quality care (135).

In Oregon, advocacy by the Oregon Nurses Association for safe staffing legislation was strengthened further by alignment with allied health care and service employee unions (41). These groups with shared interests for hospital staffing and patient safety worked together, culminating in two additional staffing committees for service workers and for technical and professional providers, in addition to the nursing staffing committees (41).

These international cases provide examples of collaborative action among various stakeholders, including unions, employers, regulators and policymakers. A recent technical brief from the WHO European Region highlights the important role of such collaborative engagement to promote safe nurse staffing (13). In Canada, nursing unions have similarly played an active role in NPR and safe staffing advocacy. For example, unions have sponsored NPR legislation, and the Canadian Federation of Nurses Unions initiated the National Council for Nurse-Patient Ratios Implementation, bringing together union, government and employer stakeholders to advance evidence-based policy (136).



POLICY CONSIDERATIONS FOR CANADA

This report examined and compared NPRs and safe staffing policies across Germany, Australia, the UK and the US. Across these jurisdictions, there is a variety of national and subnational approaches, demonstrating a range of potential policy options for Canadian federal and provincial/territorial governments to consider. For example, in the UK, NPR and safe staffing policies are determined solely by the four devolved nations. By contrast, Australian states lead NPR legislation and mandates, and the federal government (Commonwealth) has initiated policies for LTC safe staffing, supporting nursing workforce capacity and developing the MMM to address geographic variation in health care services delivery.

In Canada, there is currently no national policy or legislation for safe staffing or NPR. As discussed above, the Canadian federal government has introduced supports to build nursing and health workforce capacity, such as the *Nursing Retention Toolkit* (113), and convenes several committees and working groups to share learnings and develop policy supports across the country (e.g., the Committee on Health Workforce). In Canada, some provinces have implemented NPR and safe staffing policies; policy development and implementation are at different stages across the country. For example, in BC, hospital-based mNPR implementation is in progress, with work ongoing to develop mNPRs in community, non-hospital and long-term care settings. In Nova Scotia, work is ongoing to implement the safe staffing framework mandated through a 2023 provincial collective agreement with the Nova Scotia Nurses' Union and employers, which involves unit-level calculations of NHpPD (9). The Manitoba government recently passed legislation to enact NPRs in the province, and released recommendations for ratios and staffing in Manitoba health care settings, generated by the NPR Sub-Committee (10).

Based on our findings across the four peer jurisdictions, we propose five policy considerations related to NPR and safe staffing policies, that may be salient across Canadian jurisdictions.

1) Collaborate with key stakeholders to support development and implementation

Evidence from the literature reviewed suggests that for safe staffing approaches, collaboration and engagement with key stakeholders, including governments, employers, nursing unions and direct care nurses, is essential (13). Opportunities to leverage pre-established F/P/T health workforce supports and collaborative efforts should be considered for planning NPR or safe staffing approaches. Canadian jurisdictions can learn from each other to inform ongoing and future NPR and safe staffing efforts. For example, in Australia, states have learned from and leveraged experiences of the early implementers of NPRs in Victoria and Queensland; in New South Wales, NPR implementation is ongoing through collaborative engagement between nursing and midwifery unions, government and employers (57).

2) Develop clear outcome reporting and evaluation plans to capture and demonstrate the impacts of safe staffing policies, including NPRs

Establishing clear outcome reporting measures and plans for formal research and evaluation beyond the organizational level may help demonstrate the impacts of NPR and safe staffing policies. For example, in BC, a research study was conducted pre-mNPR implementation, which captured baseline patient and nurse outcomes and hospital staffing (8). In general, across the international jurisdictions reviewed there has been limited research and evaluation on the impacts and outcomes of NPR and safe staffing legislation, limiting understanding of the benefits and best practices for sustainable policy approaches. Formal research studies have the potential to inform ongoing NPR implementation and support NPR policy development in other jurisdictions, such as those studies conducted following NPR implementation in California, US, and Queensland, Australia (see Box 1).

As part of planning for NPR or safe staffing policy, evidence from the literature reviewed suggests that the required data and information technology infrastructure for compliance, outcome measurement and reporting should be considered early in the planning process. For example, the Manitoba Nurse-patient-Ratio Sub-Committee developed a list of provincial and national evaluation metrics and indicator recommendations for nurse, patient and health system outcomes relevant to their context early in the planning for mNPR establishment.

Opportunities should be explored for governments, intergovernmental agencies (e.g., Canadian Institute for Health Information) and non-government bodies (e.g., provider organizations and unions) to evaluate the impacts of NPR or safe staffing policies. This includes defining outcome measures to make comparisons across P/T jurisdictions, which could help identify best practices and support continuous improvements. Establishing a minimum data set for collection, monitoring and dissemination to stakeholders and the general public would facilitate comparison and benchmarking between and within jurisdictions.

3) Define mechanisms for enforcement, including processes for identifying and addressing non-compliance

Clearly defined mechanisms for flagging non-compliance are critical to support implementation and evaluation of NPR and safe staffing policies. A variety of approaches were identified in the reviewed jurisdictions. In some settings, non-compliance is positioned as a workload issue, with employees and/or unions flagging concerns through workload grievance processes (e.g., in Western Australia). Other approaches rely on organizational oversight committees or external governmental regulatory bodies to review compliance issues. A combination of approaches, such as workload grievance processes combined with regulatory oversight to capture areas of policy non-compliance, were also identified (as in California and Oregon). Clear responsibilities and enforcement measures can facilitate effective implementation, compliance, and evaluation of NPR and safe staffing policies.

Moreover, in the context of a phased approach to implementation, additional mechanisms for supporting compliance may be needed. In several jurisdictions, priority areas were identified for initial implementation (e.g., emergency departments in NSW, Australia; specific hospital wards in Wales, the UK). Phased or progressive approaches have incorporated compliance and reporting grace periods that were defined collaboratively with key stakeholders. Phased approaches can facilitate leveraging experiences to inform decisions about expanding the scope of policy settings. For example, in Canada, BC has taken a phased approach (137), permitting experience to inform refinement and improvement of policies, including for expansion to additional settings. However, when challenges arise in a phased approach, experience in the reviewed jurisdictions suggests that implementation or evaluation may be deferred due to costs, complexity and other emergent priorities. Accountability measures, such as targets for implementation, and clear commitments are important for sustained implementation.



4) Implement supports to address workforce challenges

Workforce challenges, including high vacancies, recruitment and retention issues for nursing and other health care positions, have been identified as potential implementation barriers for NPR and safe staffing policies. To mitigate these challenges, Canadian jurisdictions can collaborate in supporting efforts to bolster nursing workforce capacity (as led by the federal government in Australia, for example) and directly support employers. Workforce planning and financial analyses may help to address or identify potential concerns regarding potential costs and workforce capacity associated with implementation at the hospital and regional level. In reviewed jurisdictions, agency staff were commonly used to ensure compliance with mNPR or safe staffing policies and address immediate gaps in need. However, the risk of overreliance on agency nursing staff could be mitigated by strategies to support the nursing workforce capacity that were identified in the reviewed literature, such as bolstering nurse retention efforts and developing multi-hospital float pools. Additional policy levers were identified to discourage high use of supplemental agency nurses. For example, Scotland requires mandatory monitoring and reporting of agency staff use, while England imposes spending caps.

5) Determine NPR/safe staffing levels, using factors that reflect population needs and local contexts

Evidence from the reviewed jurisdictions highlight that effective staffing approaches must balance professional scope and skill mix, incorporate workload-based methodologies to complement minimum ratios, address geographic inequities in access to care, and include mechanisms to respond to fluctuations in health services demand to ensure that approaches are responsive to population needs and local contexts (138).

A. Define nursing professions and skill mix with flexibility for local adaptation

Whether and how the type of nursing professionals incorporated within the scope of NPR and safe staffing policies identified varied among selected regions, including broadly defining "nurse" by encompassing RNs and other designations of regulated nurses, or limiting to only RNs. In very limited cases, unregulated care provider roles and skill mix are specified within the reviewed policies. Similar to Canada, many countries have introduced or are considering introducing additional nursing roles, such as the registered nursing associate role in countries of the UK (19). Scopes of practice across nursing and other health care provider roles are complex and fluid issues (22), with financial and quality of care implications (54). Broadly defining "nurse" in NPR and safe staffing policies may permit increased flexibility for implementers to adapt to local contextual needs and capacity (53); however, clear definitions may alleviate concerns for RN replacement with other nursing roles for cost containment. Skill mix considerations should include factors beyond proportion of RNs, such as nursing experience levels and contextual factors (139).

B. Facilitate local contextual adaptation through use of staffing calculations in addition to minimum ratios

Mandated and recommended staffing methodologies were used in peer jurisdictions to incorporate clinical nursing judgment, patient acuity, skill mix, workload variability and other factors at the unit/ward level. When paired with NPRs, staffing methodologies that incorporate workload calculations may permit flexibility for local adaptation to meet unit/ward needs by increasing nurse staffing levels above established minimums. Consistent use of a particular methodology across units or settings, and/or clear methodological definitions, may promote clarity for implementation, compliance and evaluation.

C. Incorporate approaches to address rurality and geographic variation

Geographic variation was identified as an implementation challenge in several jurisdictions with similarly large rural and remote areas like Canada. An example of a federal framework to categorize rurality and support health services delivery across rural and remote regions is the Australian Modified Monash Model (104). The MMM has been applied in the state of Victoria to support NPR approaches across varying settings by adapting categorizations of hospitals to reflect rurality. A comparable federal framework was not identified in Canada in the literature. At the provincial level, BC has developed the mNPR Rural and Remote Framework that provides recommendations to support mNPR implementation in rural and remote sites (108). These examples offer potential options for inclusion of geographic, rural and remote considerations for mNPR and safe staffing at both federal and provincial or territorial levels.

D. Plan for fluctuations in health services demand

Unexpected circumstances, namely the COVID-19 pandemic and resultant increased demands on health service providers, impacted implementation in several of the reviewed jurisdictions. For example, in Scotland the Act was legislated in 2019, but implementation was paused until 2024 to avoid adding new requirements of health service providers amid pandemic-related demands and health system stressors (47). As demands on hospitals can fluctuate due to external or internal conditions, plans for fluctuations in health services demand should be incorporated within NPR policy development and implementation.

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Appendix A

SUMMARY OF NPR/SAFE NURSE STAFFING POLICIES ACROSS LTC SETTINGS

Table A1. Summary of NPR/safe nurse staffing policies across LTC settings in Australia, Germany, the UK and the US

Jurisdiction	Details on NPR/safe staffing policy
Australia	Australia has a distinct federal policy framework for residential aged care, including several legislated/mandated policies related to nurse staffing. Through the *Aged Care Act* 2024 that came into effect in late 2025, registered aged care homes must have at least 1 RN onsite 24/7 (140). Relatedly, the *Aged Care Rules* 2025 mandates "care minutes", stipulating the specific minimum number of minutes of direct care that must be provided for older adults in applicable homes (141). The policy mandates that out of the 215 minutes per resident per day, a minimum of 44 minutes must be provided specifically by RNs; the remaining minutes are provided by enrolled nurses and unregulated care providers, such as assistants in nursing (142).
Germany	Germany has staffing regulations specific to the long-term care sector. In fact, many states wstipulate nurse-to-resident ratios for residential long-term care (143). New care levels were introduced (*Pflegegrad*) in 2017; care levels are based on classifications of resident care needs that correspond to the required number of nurses (144). These regulations do not pertain to fixed NPRs, but rather ratios are calculated according to these classifications-based guidelines.

Jurisdiction	Details on NPR/safe staffing policy
The UK	There are no legislated/mandated NPR or safe staffing policies across most of the UK, except in Scotland, where adult care homes are within scope of the *Health and Care (Staffing) (Scotland) Act*. In England and Northern Ireland, frameworks and technical guidance aimed at safe nurse staffing in long-term/aged care and social care settings comprise the main policy approach. For example, in England there are regulatory frameworks through the Care Quality Commission, that provide information and guidance for care service providers on safe staffing (*Regulation 18: Staffing — Care Quality Commission*, n.d.); however, no NPRs are indicated. In Northern Ireland, aged and social care are included within the *Refreshed Delivering Care Policy Framework* as it applies broadly across the Health and Social Care services (Northern Ireland Department of Health, 2026). Within this provided framework, the *Regional HSC Workforce Planning Framework* outlines the overarching staffing methodology recommended for workforce planning. In Wales, long-term/aged care is outside the scope of the *Nursing Staffing Levels (Wales) Act* 2016. From the literature reviewed, there are no specific safe staffing policies identified for long-term care in Wales.
The US	The US has staffing regulations specific to the long-term care sector. At the federal level, the Centers for Medicare and Medicaid Services (CMS) issued a Minimum Staffing Standards for Long-Term Care Facilities in 2024 (145). The policy includes requiring all long-term care facilities to provide a minimum nurse staffing standard of 3.48 hours per resident day (HPRD), of which at least 0.55 HPRD of nursing care is provided by RNs and 2.45 HPRD is provided by nurse aides (145). However, the CMS repealed the policy in December 2025, leading to criticism by the American Nurses Association and other nursing unions on how the policy repeal would lead to unsafe working conditions and jeopardize resident safety (146,147). States across the country also have varying policies regarding nurse-resident staffing ratios, with only six states (California, Florida, Illinois, Massachusetts, New York and Rhode Island) and Washington D.C. having mandates for staffing ratios above the national minimum of 3.48 HPRD (148).

Appendix B

ADDITIONAL DETAILS ON NPR/SAFE STAFFING POLICIES IN AUSTRALIA, GERMANY, THE UK AND THE US

AUSTRALIA

Health system governance model	Decentralized; safe staffing authority sits at the state level
Safe staffing approach and mechanism	Mandatory legislated NPRs through Acts and industrial agreements: • Victoria: Enterprise Bargaining Agreement (2000); *Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Act* (2015) • Queensland: *Hospital and Health Boards (Safe Nurse-to-Patient and Midwife-to-Patient Ratios) Amendment Bill* (2015) • New South Wales: Memorandum of Understanding; Safe Staffing Levels Taskforce (2023) • Western Australia: WA health system — Australian Nursing Federation — registered nurses, midwives, enrolled (mental health) and enrolled (mothercraft) nurses — Industrial Agreement (2024) • South Australia: *Nurse and Midwife to Patient Ratios Act* (2025)
Scope	Public hospitals; explicit NPRs for specific units
Staffing tools	• Business Planning Framework (BPF), Queensland • Workforce Planning Framework Service Profile, Western Australia
Implementation approach	In general, states favour phased rollouts that start with select units and expand over time; policies evolve through amendments, expansions and stakeholder negotiation.
Compliance and reporting	• Responsible authorities: state health departments, industrial relations bodies, unions • Monitoring: audits, reporting systems, workforce planning tools
Penalties	Vary by state

Table B1. Minimum nurse-patient ratios for general med-surg wards in Victoria

Hospital level	AM shift	Afternoon shift	PM shift
1	1:4 + 1 charge nurse	1:4 + 1 charge nurse	1:8 + 1 charge nurse
2	1:4 + 1 charge nurse	1:5 + 1 charge nurse	1:8 + 1 charge nurse
3	1:5 + 1 charge nurse	1:6 + 1 charge nurse	1:10 + 1 charge nurse
4	1:6 + 1 charge nurse	1:7 + 1 charge nurse	1:10

Source: (105)

The NPR policies across states direct explicit NPRs for specific units within public hospitals. In most policies, the circumstances are specified for when charge nurse/hands-free shift coordinator must be scheduled supernumerary to the NPR staff. In addition to general medical and surgical wards (Table B1), specific clinical units and settings also have prescribed NPRs mandated in acute care hospitals in Victoria, including intensive care units (1:1), emergency departments (1:1 for resuscitation bays), and coronary care units (1:2 for day/afternoon shifts, 1:3 for night shifts) (3). Charge nurses are to be staffed in addition to the NPR staff.

Table B2. Summary timeline of amendments to the *Safe Patient Care Act* (Victoria, Australia)

Period	Amendments	
2019, 2020	• Included a several-stage, phased process for implementing amendments (calendar of amendments to the principal Act) • Updated ratio variations for specific clinical specialty units (including special care nurseries, neonatal intensive care units, postnatal wards, oncology, palliative care and acute stroke) and mixed ward staffing calculations	• Updated/clarified rounding method (e.g., staffing to be rounded up, not down, in cases where the number of patients in a ward is not evenly divisible by the number of nurses) • Hospitals stratified into levels for application requirements of the ratio (levels 1–6) • Added requirement to publish mixed ward staffing calculations and "grace period" for implementation of 180 days for each phase
2025: to be implemented by 1 July 2026	• Established/updated nurse-patient ratios for specific units, including emergency departments, ICUs, maternity wards, coronary care units and high-dependency units	• Phased implementation to support recruitment and training of necessary staff
2026	• The Hospital Classification Review, a legislative amendment to the Act, was passed in Legislative Assembly to recategorize hospitals and, consequently, the legislative minimum ratio requirements for some hospitals.	• Phased implementation planned commencing 2027

Sources: (3,105,106)

PHASED IMPLEMENTATION AND EVOLVING LEGISLATION

Each state has approached implementation of NPR legislation slightly differently. Generally, a phased approach has been favoured, whereby a selection of initial units is mandated for NPR and/or a scheduled rollout process is commenced. For example, Victoria was the first jurisdiction in Australia to legislate NPRs through the *Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Act* in 2015 (3), which established legally binding ratios across a wide range of public hospital units (excluded private hospitals and aged care facilities) and has since undergone several amendments to refine ratio calculations, update specialty unit requirements, and introduce phased implementation schedules (see Table B2 for details).

Similarly, in Queensland, the initial legislation for minimum NPRs came into effect in 2016 via the *Hospital and Health Boards Act 2011*, which set ratios for acute adult medical and surgical wards in particular public hospitals (149). The Act was amended to expand NPRs in acute adult mental health wards (43) and to include midwife-to-patient ratios in postnatal maternity wards in 2024.

New South Wales also adopted a phased approach, however, the initial implementation is occurring at specific hospital emergency departments to be followed by progressive implementation across other hospital units. The state government approached NPR through a signed Memorandum of Understanding and creation of the Safe Staffing Levels Taskforce (150). The New South Wales Minister for Health has indicated that the experience gained through the initial rollout in specific emergency departments will inform the subsequent implementation at further sites (151).

In Western Australia, NPR came into effect through an industrial agreement for select hospitals and units in September 2024. Implementation began with a pilot phase in the emergency department of a children's hospital, followed by a phased approach over 2 years; at the outset, only "specified metropolitan wards are bound by this policy" (42). Since 2022, all hospital health care settings have relied on the NHpPD methodology until ratios are implemented.

South Australia's *Nurse and Midwife to Patient Ratios Act 2025* came into effect in August 2026. The included health care settings for public hospitals (i.e., hospital categories and the specific wards/units) are named in the legislation for implementation (44,152). Rather than a phased approach to implementation, the legislation directs the local health networks to take all reasonable steps to meet the minimum NPRs "as soon as practicable" (153). There is a moratorium on non-compliance until November 2027, and units/wards excluded from the legislation will continue to follow guidance under the Nursing/Midwifery (South Australian Public Sector) Enterprise Agreement 2022 (152).

Most of these established and unfolding policies for NPR have undergone amendments and expansions, and continue to be deliberated amongst stakeholders, suggesting these policies evolve with experience and in response to health system changes and pressures.

GERMANY

Health system governance model	Federal system with shared authority: federal ministry of health (*Bundesministerium für Gesundheit*; BMG) and federal states (*Länder*)
Safe staffing approach and mechanism	Two major federal instruments: 1. PpUGV (2019): minimum staffing levels ordinance for nursing staff • Federal regulation to mandate minimum staffing ratios across hospital units 2. PPBV (2024): nursing staff assessment regulation • Acuity-based staffing assessment: hospitals are obligated to determine their nursing staff requirements based on patient volume and acuity guidelines • Calculated for each ward on a monthly basis to the InEK using the staffing measurement tool (PPR 2.0) • PPBV is still in its implementation phase; target staffing levels will not be established, and sanctions for non-compliance will not be enforced, until the system is fully operational and sufficient evaluation has been conducted
Scope	• All hospitals participating in statutory health insurance • PpUGV: specific units with mandated NPRs • PPBV: all inpatient wards must conduct monthly staffing assessments
Staffing tools	PPBV: staffing measurement tool PPR 2.0
Implementation approach	Phased federal rollout; policies evolve through federal amendments, expert consultations, and negotiations with hospital associations and unions
Compliance and reporting	• Responsible authorities: federal ministry of health, InEK, hospital regulatory bodies • Monitoring: mandatory reporting of staffing levels (PpUGV), monthly submission of acuity-based staffing calculations (PPBV), federal audits and validation through InEK
Penalties	• PpUGV: hospitals can face reimbursement reductions if the reported staffing levels are below the minimum NPRs. • Exceptions: during significant increases in patient cases due to epidemics and major incidents

The PpUGV regulation sets different requirements for day and night shifts and specifies the maximum allowable share of nursing assistants allowed in each hospital unit. These ratios are summarized in Table B3.

Table B3. NPRs and maximum nursing assistant allowances (%) under PpUGV

Hospital units	Date implemented	Nurse-patient ratio		Maximum % of nursing assistants	
		Day shift	Night shift	Day shift	Night shift
Adult and pediatric ICUs	Feb. 1, 2021	1:2	1:3	5%	5%
Internal medicine and cardiology		1:10	1:22	10%	10%
Cardiac surgery		1:7	1:15	5%	0%
Neurology		1:10	1:20	8%	8%
Neurological stroke unit		1:3	1:5	0%	0%
Neurological early rehabilitation		1:5	1:12	10%	10%
Geriatrics	Jan. 1, 2019*	1:10	1:20	15%	20%
General surgery, trauma surgery and orthopedics	Jan. 1, 2022	1:10	1:20	10%	10%
General pediatrics		1:6	1:10	5%	5%
Specialized pediatrics		1:6	1:14	5%	5%
Neonatal pediatrics		1:3.5	1:5	5%	5%
Gynecology and obstetrics	Jan. 1, 2023	1:7.5	1:15	5%	0%
Otolaryngology		1:10	1:22	10%	5%
Urology		1:10	1:22	10%	5%
Rheumatology		1:13	1:30	10%	5%
Neurosurgery	Jan. 1, 2024	1:9	1:18	10%	5%

Source: (28)
*Date provided by international expert reviewer

THE UK

The UK's health system governance model is devolved to the respective four nations (Wales, Scotland, England and Northern Ireland), where service planning is delegated to respective local health boards. All nations in the UK use various staffing methodology frameworks and tools to calculate safe nurse staffing levels.

	WALES	SCOTLAND	ENGLAND	NORTHERN IRELAND
Safe staffing approach and mechanism	*Nurse Staffing Levels (Wales) Act 2016*; amended 2021: defines the appropriate number of nurses for specific wards and requires health boards to provide appropriate safe staffing; prescribed method for calculating nurse staffing levels in applicable wards All-Wales Nurse Staffing Programme, reporting to Chief Nursing Officer, supports health boards to meet the requirements of the Act through provision of guidance, standards and tools.	*Health and Care (Staffing) (Scotland) Act 2019*; in effect 2024: defines the legal duty of the Scottish government and NHS to provide and ensure adequate safe staffing; mandates use of and reporting on the *Common Staffing Method* (CSM) in specific settings; accompanying statutory guidance	*NICE* 2014 safe staffing guideline: outlines how individual hospital boards should maintain responsibility for setting safe nursing staff requirements (34); endorses use of *Safer Nursing Care Tool* (SNCT) in conjunction with the guideline	*Delivering Care Policy Framework* (2014; refreshed 2026): aims to provide a regionally consistent approach on determining safe nursing and midwifery staffing levels and skill mix; outlines the Six Steps Methodology to Integrated Workforce Planning (154)
Scope	Adult acute medical and surgical inpatient wards, pediatric inpatient wards	Hospitals (including specialty wards) and community settings	*NICE* 2014 guideline: adult inpatient wards in acute hospitals	Hospitals and community settings

	WALES	SCOTLAND	ENGLAND	NORTHERN IRELAND
Staffing tools	*Triangulated Method* (mandatory) — calculations are completed by a designated person (e.g., executive director of nursing) in each applicable setting.	CSM (mandatory)	• *NICE* 2014 guidelines • *Safer Nursing Care Tool* (SNCT)	CSM: endorsed in the Six Steps Methodology and encourages the use of evidence-based staffing calculation tools (e.g., SNCT, Birthrate Plus)
Compliance and reporting	• Regulatory body: Healthcare Inspectorate Wales • Health boards/trusts: submit compliance reports to the Welsh government every 3 years; inform patients of the nurse staffing level on applicable wards; and measure impact of nurse staffing levels, including reporting on nurse sensitive indicators (e.g. pressure ulcers, falls, medication errors) • Oversight and Escalation Framework: monitors compliance	• Regulatory bodies: Care Inspectorate, Healthcare Improvement Scotland • Health boards/trusts: report annually to Scottish ministers on how staffing duties were conducted, including self-reporting on staffing and use of the CSM; ministers publish combined reports • Healthcare Improvement Scotland: monitors health boards' compliance; engages with stakeholders to maintain, develop and improve staffing tools	• Regulatory body: Care Quality Commission (CQC) • No formal compliance mechanism; NICE guideline and SNCT are not mandatory	• Regulatory body: Regulation and Quality Improvement Authority (RQIA) • Health and Social Care (HSC) trusts: uphold framework recommendations (35) • Formal compliance mechanisms unclear

THE US

Health system governance model	Highly decentralized, with state-level authority over nurse staffing regulation; federal policy (Title 42 § 482.23 Condition of participation: nursing services) sets broad requirements for hospital participation in Medicare/Medicaid programs and sets out directions for the staffing and delivery of care, requiring hospitals to ensure there are "adequate" numbers of licensed RNs, LVNs and other additional staff to safely provide patient care (39), but a fulsome definition of adequate is not specified. This policy does not specify NPRs.
Safe staffing approach and mechanism	Varies by state, ranging from mandatory NPRs to staffing plans, committees and public reporting States with legislated NPRs: • California: *Assembly Bill (AB) 394* (2004); the only state with comprehensive NPRs across acute care hospitals • Oregon: legislated NPRs through HB 2697, effective 2024-2025 • Arizona, Massachusetts, New York: for specific inpatient units States with mandated nurse staffing plans (no fixed ratios): • Missouri, Nebraska, New Jersey, New Mexico, North Dakota, Pennsylvania, Rhode Island, South Dakota, Utah, West Virginia and Wyoming States with mandated staffing committees: • Colorado, Texas, Connecticut, Nevada, Washington, Minnesota, Illinois and Ohio States with public reporting requirements: • Illinois, New York, New Jersey, Rhode Island and Vermont
Scope	• California: All acute care hospitals; explicit NPRs for specialty units (ICU, emergency department, pediatrics, med-surg) • Oregon: acute care hospitals • Other states: varies, often limited to specific units

In states with mandated nursing staff plans without fixed ratios, applicable health care settings are required to ensure adequate staffing levels, but staffing requirements are not specified. For example, in Missouri, health facilities (including all hospitals) are mandated to ensure "adequate nursing staffing" through development and implementation of a staffing methodology (156). The mandate is broadly defined, requiring "sufficient" numbers of licensed RNs to meet quality standards (156), but does not specify a methodology or detail requirement.

Of the nine states with mandated staffing committees, many require RN representation on the committee in some capacity (e.g., a percentage of members must be RNs); mandating nursing participation facilitates inclusion of RN expertise into the staffing planning process (2,157,158).

Public reporting mandates have been used in nine states as a lever to encourage increases in staffing (2,157).

Finally, several states have legislated NPRs for specific inpatient units. For example, in Arizona, Massachusetts and New York, NPRs in intensive care units are 1:2 (158–160). In Oklahoma and Ohio, mandated NPRs or clinical staff-patient ratios are in place for inpatient psychiatric units. In Oklahoma, NPRs are mandated to be 1:6 during daytime and 1:8 overnight (162). For inpatient psychiatric units classified as specialty acute, additional nurses are required, with ratios of 1:4 during daytime and 1:6 overnight (163). In Ohio, the administrative code directs staffing ratios for psychiatric facilities as direct care staff to patient ratios, not specific to RNs (164).

CALIFORNIA

California is the first state in the US to legislate minimum NPRs comprehensively for general acute care hospitals through the *Assembly Bill (AB) 394* (1999) (2). Following passage of *AB 394*, the California Department of Health Services subsequently held consultative hearings soliciting stakeholder recommendations for mandating mNPRs; in 2002, the final ratios were announced and took effect January 1, 2004 (98). A phased approach was taken to the initial implementation. For example, NPRs legislated for medical-surgical units were initiated with a ratio of 1 RN to 6 patients for 18 months, then tightened to 1 RN to 5 patients thereafter, offering implementers a transition period to hire and train the necessary staff (98,101).

Skill mix specifications stipulate that up to 50% of the staffing number can be met by LVNs (37). Initially, concerns of "diluted" skill mix due to the potential for reduced RN staffing were brought forward by critics. However, post-implementation research found that no reductions in skill mix were observed (98).

The NPRs are specific to specialty or unit type (Table B4). Importantly, the NPRs in California hospitals are to be upheld at all times without variation, across shifts, days of the week and holidays (38).

The NPR legislation has evolved over the two decades since implementation (see Table 1 for an overview summary timeline of California's safe staffing legislation and ongoing developments). Recently, there have been reforms to the existing regulations in California. In October 2025, Senate *Bill 596* was signed, amending the *Health and Safety Code* Section 1280.3 for numerous regulations related to hospital facilities and nurse staffing (165). The amended regulations expand enforcement mechanisms for NPRs, including by increasing the financial penalties for hospitals in violation of staffing requirements and treatment of each day as a new occurrence for non-compliance (165,166).

SB 596 expands mandatory minimum NPRs to acute psychiatric hospitals and related additional staffing requirements on the basis of patient safety promotion (36). These new regulations do not alter or replace the NPRs for hospitals, but expand regulations to other freestanding acute psychiatric hospitals (36). These amendments were adopted initially on an emergency regulations basis, in response to the California Department of Public Health investigations that identified "inconsistent staffing across the state and patient harm" related to the lack of specific minimum NPRs in acute psychiatric hospitals (36). Originally set to take effect in January 2026, this was delayed to June 2026 because facilities warned of significant bed closures due to the need for staff recruitment and training to meet the new NPRs (36,167). Consistent with the pre-existing NPR for psychiatric units within acute general hospitals, the expanded regulations specify minimum NPRs of 1:6 for adult patients, and 1:5 for pediatric patients within acute psychiatric hospitals (36).

Table B4. California NPRs per unit/patient type

Unit/patient type	NPR (RN:patient)
Operating rooms	1:1
Trauma patients in the emergency department	1:2
Critical care areas	1:2
Pediatrics	1:4
Emergency departments (non-trauma patients)	1:4
Other specialty care units	1:4
Medical-surgical units	1:5

Sources: (37,38)

Table B5. Summary timeline of California's safe staffing legislation and amendments

Period	Legislation or agreement and amendments
1999	*Assembly Bill 394*
2004	NPR regulations in effect, phased NPR implementation begins in acute care hospitals
2008	Changes to NPRs in select units to reduce number of patients per nurse
2026	Senate Bill 596 in effect on an emergency basis

Sources: (83,84,168)

OREGON

Through House *Bill 2697 Hospital Staffing Law* passed in 2023, the state of Oregon has legislated minimum NPRs and other nurse staffing requirements (40).The NPRs took effect in June 2024, and the enforcement process by the Oregon Health Authority began in June 2025.

Charge nurses are not exclusively supernumerary to NPRs, as these RN can cover breaks in some units (e.g., with approval of hospital nurse staffing committee in units with 11 or more beds) (40). Psychiatric units are outside the scope of the Oregon legislation regarding NPR and nurse staffing plans currently. Rather, staffing is to be determined by unit staffing committees in these settings (169).

Table B6. Oregon NPR requirements per unit/patient type

Unit/patient type	NPR (RN:patient)
Trauma patients in emergency departments	1:1
Active labour and delivery units	1:1
Operating rooms	1:1
wIntensive care unit	1:2
Not-active labour and delivery patients	1:2
Post-anesthetic care units	1:2
Intermediate care units	1:3
Postpartum couplets	1:4
Medical-surgical	1:5 until July 1, 2026; 1:4 thereafter
Oncology	1:4
Telemetry patients	1:4
Emergency department (overall)*	Maximum average 1:4 over a 12-hour shift

Sources: (40,41)

*The emergency department has separate NPR directions; a single direct care RN may not be assigned more than 5 patients at one time (40); RNs assigned to trauma patients (NPR 1:1) may not be taken into account in determining the average ratio (40).