Staffing Ratios and their Impact on the Health and Safety of Nurses:

A Policy Brief

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This Report was prepared by Linda H Aiken, an independent international expert on the scientific evaluation of the outcomes of hospital nurse staffing policies, in response to questions provided by the Ontario Nurses Association on December 12, 2024. Dr. Aiken is solely responsible for the content of the Report.

Introduction

The top reasons why nurses leave jobs in healthcare are burnout and insufficient nurse staffing (Muir et al., 2024). Research recently documented that 63% of Ontario nurses experienced job-related burnout and 32% experienced clinically significant burnout often associated with mental disorders including depression, anxiety, and PTSD (Stelnicki et al., 2019). Research consistently shows that high patient-to-nurse ratios are significantly related to high nurse burnout, increased job dissatisfaction, and greater intent to leave current job (Shin et al., 2018). Unfavorable hospital nurse staffing is also associated with preventable adverse patient outcomes including higher mortality, complications, failure to rescue, healthcare associated infections, lower patient safety and care quality, and lower patient satisfaction ratings (Li et al., 2024; Lasater et al., 2021). Forty percent of Canadian nurses say they intend to leave their jobs, or the profession, or retire within a year; 70% say nurse staffing adequacy would impact their decision to leave (CFNU, 2024). Only 64% of Ontario's registered nurses are working full time (CIHI, 2024). The World Health Organization (WHO, 2022), in considering high nurse leaving rates, concludes that even high-income countries cannot train their way out of nurse shortages unless hospitals and other employers retain already qualified nurses. Chronic hospital nurse understaffing is a primary root cause of nurse burnout, job dissatisfaction, and failure to retain qualified nurses. The purpose of this research brief is to provide objective evidence about public policies in jurisdictions internationally that aim to improve hospital nurse staffing adequacy with the goal of informing hospital nurse staffing policy discussions in Ontario, Canada.

ONA: Explain the general theory regarding nurse-to-patient ratios, specifically as it relates to the working conditions of nurses, including, their health and safety.

Nurses are the primary surveillance system in hospitals for early detection of complications and the launch of rapid interventions to rescue patients. The nurse surveillance system is compromised by inadequate nurse staffing when nurses are not able to directly observe, assess,

and act upon patients' conditions that can result in life threatening delays and moral distress for nurses. Poor patient outcomes weigh heavily on nurses and are associated with nurse burnout, job dissatisfaction, sleep disturbances, unfavorable physical health, and intent to leave. Moral distress among nurses is a result of preventable poor patient outcomes for reasons beyond nurses' control, such as chronic nurse understaffing, and is experienced as frustration, anger, sadness, helplessness, and suffering which impacts nurses' physical, psychological, and emotional well-being (McAndrew et al., 2018). Nurse burnout is conceptualized as a state of emotional exhaustion occurring because of a prolonged mismatch between nurses' professional care standards and employers' expectations of work including excessive workloads, insufficient nurse control over the resources needed to accomplish their job, and lack of adequate reward and recognition for the job done. It has taken hospital leaders a long time to recognize the connection between adverse nurse outcomes and unfavorable patient outcomes even though there is a large and robust evidence base showing that the adequacy of nurse staffing is a key hospital resource that impacts nurse wellbeing and retention, patient mortality, complications, and satisfaction, and favorable financial metrics driven by nurses such as cost savings produced by shorter lengths of stay and reduced nurse turnover (Lasater et al., 2021; McHugh et al., 2022; Schlak et al., 2021).

Conventional wisdom long presumed that physician care was the primary factor affecting the most important hospital patient outcomes including mortality and complications, and that nursing care was a cost that could be minimized without consequences. Two landmark U.S. studies published in 2002 by different research teams documented in rigorous hospital studies that the very large variations in patient-to-nurse staffing ratios across hospitals were common and contributed to why surgical mortality rates varied so much by hospital (Aiken et al., 2002; Needleman et al., 2002). ***Each one patient added to a nurse's workload was associated with a 7% increased risk of hospital mortality*** (Aiken et al., 2002). This finding has been replicated in research in Canada, Europe, Australia, and South Korea (Aiken et al., 2014; Estabrooks et al., 2005, Tourangeau et al., 2006; Cho et al., 2014). Important in this research was the development of a new patient outcomes measure-- Failure to Rescue. Nurses pointed out that most patients that died from surgery, died on hospital postoperative care units where most of the direct care professionals were nurses rather than in the operating rooms. Researchers documented that variation in patient-to-nurse staffing ratios was one of the most important factors in hospitals' failure to rescue surgical patients that experienced a complication. This finding is consistent with the theory that one of the most important roles of professional nurses is surveillance and early intervention when necessary to save patients' lives. Another line of research related to nurses' lifesaving roles and the importance of nurse staffing adequacy is in patients who require a "Code Blue" or resuscitation in the hospital (Brooks Carthon et al., 2020; McHugh et al., 2016). The single most important modifiable factor in successful resuscitations in the hospital was found to be patient-to-nurse ratios; the fewer patients each nurse was responsible for, the more likely patients were to survive an in-hospital resuscitation and the better the neurological status of those patients alive at hospital discharge. The fewer patients each nurse had, the better the early warning surveillance system and the faster lifesaving resuscitation could be initiated. Over time,

research has confirmed the importance of patient-to-nurse ratios to a great array of patient outcomes including outcomes that can impact hospital financial health including length of hospital stay and hospital readmissions within 30 days of hospital discharge.

The theory of how patient-to-nurse ratios affect nurse wellbeing is that ***when nurses have safe and manageable workloads, they experience less stress, burnout, and job dissatisfaction leading to improved mental health and emotional wellbeing, higher job satisfaction, better work-life balance, and greater nurse retention in clinical care settings***. Yes, the practice of nursing involves inherent stressors including caring for patients who are at risk for death, are experiencing pain, suffering, and anxiety, and whose loved ones are often anxious and demanding. Yet, considerable research shows that it is not the inherent stressors of caring for sick people that create job-related stress and burnout for nurses; it is high workloads, low staffing levels, low control over their workloads, and preventable adverse patient outcomes that result in nurse "moral distress" (Dall'Ora, Ball, Griffiths, 2020). For example, contrary to popular beliefs, hospital critical care nurses do not score highest on nurse burnout as might be expected by how desperately ill or injured their patients may be because ICU nurses have fewer patients assigned to them and because the work environments in critical care tend to be better because of well-functioning interprofessional teams. A systematic review of published research between 2000-2016 found across multiple studies that higher patient-to-nurse ratios are consistently and significantly associated with higher nurse burnout, increase in job dissatisfaction, and higher intent to leave (Shin, Park, Bae, 2018) and nurse safety (Lasater et al., 2025).

Nurses, in addition to serving as the surveillance system for patient safety, ***constitute the management and coordination structure at the patient interface that integrates the multiple services provided by many different personnel into a holistic program of care***. Nurses have been described as the glue that holds the care system together. Of all the health care providers in hospitals, it is nurses who are held responsible for and hold themselves accountable for making sure that each patient receives the services they require. One-third of hospital nurses report spending significant time on non-nursing tasks because of hospital level operational failures such as missing or broken equipment, missing or incorrect meals, missing or delayed lab reports, missing medications, and nurse shortages (Riman et al., 2023). Research shows that insufficient nurse staffing not only impacts nurse wellbeing but also affects the burnout and job dissatisfaction of hospital physicians as nurses are often their implementation arm (Aiken et al., 2023). Insufficient nurse staffing, because of nurses' impact on overall organization of care, contributes to inefficiencies, delays in care, and frustration of providers, patients, and visitors, that sometimes result in harsh and hurtful verbal abuse directed at nurses and occasionally physical abuse. A solution to verbal and physical abuse of nurses is to prevent chaotic care environments by providing adequate nurse staffing.

No safe substitute has yet been identified for professional nurses in the acute hospital context. Technology is nurse intensive and has largely expanded nurses' scope of work and responsibilities rather than substituting for them. There is a large international evidence base

showing that attempts to substitute less qualified personnel like licensed vocational nurses and nursing assistants for professional nurses increases adverse patient outcomes, is associated with greater nurse burnout, dissatisfaction, and turnover, and does not save money (Laster et al., 2024; Aiken et al., 2016).

ONA: Identify jurisdictions where nurse-to-patient ratios have been established, including their years of implementation, and what ratios were adopted.

ONA: Where implemented, describe the impact of nurse-to-patient ratios on the working conditions of nurses, including health and safety.

These two questions are answered together by country/jurisdiction listed in order of countries with the most examples of nurse staffing legislation and policy evaluations).

United States

Legislative activity to regulate nurse staffing in U.S. hospitals has been increasing (Krishnamurthy et al., 2024). Two states, California and Oregon, have passed legislation mandating comprehensive hospital minimum nurse-to-patient ratios and two states, Massachusetts and New York, have passed hospital mandated nurse staffing for critical care only. Eight states have adopted mandated hospital nurse staffing committees, and eleven states require hospital staffing plans. Five states have mandated public reporting of hospital nurse staffing. Multiple states have pending nurse-to-patient ratio legislation including Pennsylvania, Georgia, Maine, Illinois, New Jersey. While the U.S. has a national RN and LNP licensure exam, licensure is at the state level. In 2000 the Nurse Licensure Compact (NLC) was developed to allow nurses licensed in any Compact state to practice in any other Compact state. To date, 43 of 50 U.S. states have implemented the Nurse Licensure Compact which is a factor facilitating the implementation of state nurse staffing policies as nurses can move more freely from state to state.

The state of **California** passed a comprehensive safe staffing law (A.B.394) in 1999 that has multiple provisions designed to remedy unsafe staffing in acute-care hospitals. The law is what is known as an “unfunded” mandate in the sense that the state government did not provide additional financial resources to hospitals that needed to increase employment of nurses to be in compliance with the law. The stated intent of the law was to improve patient outcomes and patient safety. California’s safe staffing standards are based on individual patient acuity, of which the nurse ratios is the minimum. Additional nurses must be added to the minimum ratios based upon a documented patient classification system that measures patient needs and nursing care, including severity of illness, complexity of clinical judgment, and the need for specialized technology. Hospitals can use up to 50% licensed vocational nurses (LVNs) to meet the ratios in addition to registered nurses (RNs). Hospitals may not assign unlicensed assistive personnel to

perform nursing functions or perform RN functions under the supervision of an RN. There can be no averaging of the number of patients and the total number of RNs. The floating of nursing staff between units requires orientation and validated current competence. The legislation did not include specific ratios but directed the California Department of Health Services to establish minimum, specific, and numerical licensed nurse-to-patient ratios by hospital unit type for acute-care, acute-psychiatric, and specialty hospitals (Coffman, Seago, Spetz, 2002).

California's Department of Health Services spent 3 years gathering evidence and holding hearings before establishing the numeric minimum ratios implemented in January 2004. The ratios apply at all times (day, night, weekends, holidays), including during nurse meals and breaks, excused absences.

California Patient-to-Nurse Ratios

Unit Type	Nurse: Patient
Adult medical and postoperative surgical	1:5
Pediatric	1:4
Intensive care units	1:2
Telemetry	1:5
Oncology	1:5
Psychiatric	1:6
Labor/Delivery	1:3

Some rural hospitals were eligible for delayed implementation. The ratios are a floor not a ceiling. Initially, no nurse could care for more than 6 adult medical or surgical patients at one time. Then after a year, those ratios were reduced permanently to 5 patients per nurse. These ratios remain in effect.

Impact of California staffing legislation:

- Nurse staffing improved significantly in California hospitals after the legislation's implementation in 2004, and as a result nurse job satisfaction improved and nurse burnout was reduced (Aiken et al., 2010).
- The legislation implemented in 2004 has had a sustained positive impact on nurse staffing, nurse wellbeing and patient outcomes for 20 years:
    - Nurses in California in 2016 had better nurse staffing, and lower burnout, job dissatisfaction and intentions to leave their employer, as compared to nurses in other states. These improved outcomes can be directly attributed to California's minimum nurse-to-patient ratio law adopted in 2024 (Muir et al., 2025).
    - On average, patients in California hospitals presently receive 2-3 hours a day more RN care than patients in hospitals in other states (Dierkes et al, 2022).
- Nurse staffing improved rapidly and significantly in safety net hospitals that were among the poorest staffed hospitals with the implication that mandated nurse staffing ratios can improve health equity for underserved populations (McHugh et al., 2012).

- This was an "unfunded" mandate and there is no evidence that hospitals closed or reduced services because of the staffing policy.
- There was no erosion of nursing skill mix with hospitals replacing RNs with LVNs even though up to 50% of the ratio by law could be met with LVNs (McHugh et al., 2011).
- There was a decline in the use of assistive personnel but no evidence of dissatisfaction among RNs (McHugh et al., 2011).
- Half of California hospitals met the mandated ratios before the legislation was implemented; these hospitals did not reduce their staffing to the minimum required and many improved their staffing further.
- Compliance has been excellent. Hospitals that repeatedly violate the staffing mandate may be fined. Additionally, nurse unions have implemented various strategies to motivate compliance including formal nurse reporting of each understaffed shift with a signed statement transferring liability for patient safety to the manager which reportedly results in rapid staffing improvements.
- Evidence of a positive impact of the California nurse staffing legislation on nurses' wellbeing is strong. The impact of the legislation on patient outcomes is sometimes said to be "mixed". Large scale studies with sufficient statistical power to find associations between the legislation and patient outcomes, provide evidence that mortality and failure to rescue decreased in California following staffing improvements (Aiken et al., 2010; Mark et al. 2013). Some studies of so called "nurse sensitive indicators" at the unit level such as pressure ulcers and falls had null findings that could well be due to outcome measurement error and faulty research design.

There were no provisions or funding for an independent prospective evaluation of California's nurse staffing policy. Thus, baseline data were never collected that would have enabled the most rigorous scientific design of the evaluation of the legislation's impact. The absence of baseline measures of staffing levels and nurse and patient outcomes in all California hospitals prior to implementation resulted in limitations in the design of outcomes research on the impact of the ratio policy, particularly on patient outcomes, creating an opening for opponents of ratio policies to raise doubts about the legislation's impact. For purposes of this review, there is little disagreement that 1) the California legislation improved nurse staffing, and 2) nurse outcomes improved as a result of the legislation. There is more disagreement on whether improvements in patient outcomes took place and if so, whether they can be attributed to the legislation.

A lesson from California for other jurisdictions considering mandating hospital minimum nurse staffing ratios is the importance of funding and implementing an independent prospective scientific evaluation of the policy's impact including the collection of primary baseline data about staffing in affected hospitals and nurse and patient outcomes at baseline before policy implementation for comparisons with data after implementation.

Oregon became the second U.S. state to pass comprehensive nurse staffing legislation (HB2697) in 2023 with nurse ratios implemented on June 1, 2024. The initial medical surgical ratio was no more than 5 adult patients on adult medical and surgical units per nurse which tightens to 1:4 on June 1, 2026. This law is a floor not a ceiling. Hospital staffing committees may create staffing plans with higher standards. Current facility staffing plans that satisfy the minimum of the new statute will remain in place. The only time facilities can deviate from the legal ratios is when nurse staffing committees pursue an innovative care model by including other clinical staff and then the model must be re-approved by the staffing committee every two years. Statutory ratios are enforced at all times. Hospitals must pay nurses $200 for each missed break or meal when the nurse files a valid complaint within 60 days. Additionally, financial penalties may be levied on hospitals that fail to adhere to the statutory ratios. Two new staffing committees, in addition to the already existing nurse staffing committees, were established by the new law: one for service workers (like environmental and food services) and the other for non-nurse professional providers (like physical therapists). Rural hospitals receive a two-year variance from the law's requirements but only if the nurse staffing committee approves. There is a prospective evaluation of the law ongoing by Penn Nursing's Center for Health Outcomes and Policy Research including before and after measures of nurse staffing and nurse outcomes, as well as patient outcomes; no results are available at the time of this writing.

Oregon Statutory Minimum Nurse-to-Patient Staffing Ratios	
Emergency Department (Trauma)/ Active Labor & Delivery/ Operating Room	1:1
Intensive Care Unit/ Not Active Labor & Delivery/ Post-Anesthesia Care Unit	1:2
Intermediate Care Unit	1:3
Emergency Department (Non-trauma)/ Postpartum Couplets/ Medical Surgical/ Oncology/ Telemetry	1:4

Notes: Medical surgical ratio began at 1:5 in June 2024 and drops to 1:4 in June 2026.

The emergency department ratio is an average for each shift and excludes trauma patients; 1:5 is the maximum at any time but for every amount of time the ratio exceeds 1:4, and a nurse cares for 5 patients at once, this must be offset during that same shift by a nurse caring for only 3 or fewer patients during at least that same amount of time. CNA ratios: 1:7 (Days), 1:11 (nights). (Source: Oregon Nurses Association. https://www.oregonrn.org/SafeStaffing-AmendedBill)

Massachusetts in 2014 (implemented in 2017) and **New York** in 2023 passed legislation setting minimum nurse staffing requirements in intensive care units after comprehensive minimum nurse staffing ratio bills failed to pass into law. Massachusetts law established that in intensive care

units the patient assignment for RNs shall be 1:1 or 1:2 with this determination based on the stability of the patient as assessed by an acuity tool led by staff nurses in the unit.

In Massachusetts, an outcomes evaluation was undertaken comparing ICUs in 6 academic medical centers in Massachusetts impacted by the law over time with 114 academic medical centers outside of Massachusetts (Law et al., 2018). The researchers found no differences in Massachusetts hospitals in ICU staffing over time compared to ICUs in other states, and no changes in patient outcomes associated with the legislation. Nurses' wellbeing was not reported. The null findings were to be expected because in the U.S. there is not as much variation in ICU nurse staffing as in other types of units like medical and surgical, especially in academic medical centers, the hospitals studied. If the legislation had a significant effect on nurse staffing in ICUs, it would have been more likely in ICUs in community hospitals that were not studied.

A lesson from the **Massachusetts** nurse staffing legislation attempt, is the value of a baseline study done in time to inform the public and their elected officials with real time local data as to whether there is a justification for such a policy. Massachusetts is different from other jurisdictions that have adopted nurse staffing legislation in that the policy decision was made by a public ballot issue rather than by the state legislature. The only report provided was a limited review of research and opinions on the effectiveness of the mandated minimum nurse staffing ratios policy in California implemented almost 20 years previously in a different state. In the absence of real time data on Massachusetts hospitals, voters were swayed by hypothetical negative scenarios, such as hospital ratios would create a dangerous shortage of nurses in nursing homes, would result in emergency departments and possibly local hospital closures, and would result in very high additional costs of care implying that patients would pay more for their care. The measure failed to pass. Even in the more restrictive policy involving ICUs only, no primary data were reported on ICU staffing and related outcomes in Massachusetts hospitals prior to the legislation so it is unknown whether there was a problem to solve, particularly in academic medical centers that were the focus of the policy evaluation.

The **New York** ICU staffing ratio law, passed in 2023 by the state's legislature, requires, at all times, a minimum of 1 RN for every two ICU and critical care patients, increased as appropriate for the acuity level of the patient. Unlike in Massachusetts, there were baseline data collected on New York hospitals documenting (Lasater et al., 2021a) that ICU staffing ranged across all NY hospitals (not just academic medical centers) from 1.8 to 4.3 patients per nurse with an average of 2.5 patients per nurse. Thus, implementing the 2023 required minimum staffing of 1 RN for every 2 ICU patients could potentially improve ICU staffing in some New York hospitals. The bill that failed to pass, the NY Safe Staffing for Quality Care Act (S.1032/ A.2954), called for nurses to care for no more than 4 patients each on adult medical and surgical units. Published research (Lasater et al., 2021a) showed nurse staffing varied across adult medical and surgical units in NY hospitals from 4.3 to 10.5 patients per nurse, with an average of 6.3 patients each. Half of nurses in NY hospitals suffered from high job-related burnout; close to 30% were dissatisfied with their jobs, and over 1 in 5 nurses said they intended to leave their jobs within

the year. Researchers based upon observed differences in hospital outcomes at all nurse staffing levels predicted that passage of the NY Safe Staffing for Quality Care Act would have:

- Significantly **improved nurse's wellbeing and intention to stay** in their jobs.
- More than **4,370 deaths would have been avoided** just among elderly Medicare patients admitted to hospitals for common surgical and medical reasons during the 2 years of the study, and many more deaths would have been avoided if all patients who benefit from improved nurse staffing were counted.
- More **deaths from sepsis** would be avoided by adopting New York's comprehensive nurse ratio policy than the NY legislation already passed mandating that all hospitals implement a sepsis care bundle to prevent sepsis deaths (Lasater et al., 2021c).
- **Savings of a minimum of $720 million** would have been achieved over two years because of avoided days of hospital care from shorter lengths of stay and fewer readmissions that could have been reinvested in hiring the additional nurses needed to meet the proposed ratios.
- Despite these promising projected outcomes, the NY legislature has failed so far to pass comprehensive nurse to patient ratios, and passed only minimum nurse-to-patient staffing ratios for ICUs. Nurses in New York state are still depending upon individual hospital-based nurse staffing committees and hospital-specific labor union negotiations to deliver safe nurse staffing conditions which are unlikely to eliminate large differences in nurse staffing across hospitals in the state.

Illinois, Pennsylvania, and New Jersey have pending legislation

- The **Illinois** Safe Staffing Limits Act calls for hospital nurses outside of ICUs to care for no more than 4 patients each. Researchers (Lasater, 2021b) documented large variation in nurse staffing in Illinois hospitals from 5.4 patients on adult medical and surgical units for each nurse in some hospitals to as many as 7.6 patients per nurse in others. Using these staffing data by hospital linked with objective patient outcomes data for the same hospitals, researchers estimated that if all Illinois hospitals staffed at levels mandated in pending state legislation of not more than 4 patients per nurse on medical and surgical units, **more than 1,595 deaths could have been avoided and over $117 million saved *per year***, just among elderly Medicare patients and likely considerably more across all hospitalized patients. The Illinois bill has not passed as of early 2025.
- **Pennsylvania** has the Patient Safety Act pending that restricts hospital nurses on adult medical and surgical units to caring for no more than 4 patients at a time. Researchers (Aiken, 2023) documented that the average medical-surgical hospital nurse in PA provides care to 5.6 patients, and nurses' workloads range across hospitals from 3.3 patients per nurse to as many as 11 patients per nurse. If all Pennsylvania hospitals were staffed in medical and surgical units at the proposed rate of 4:1 in pending legislation, an

estimated **1,162 deaths annually could be avoided**. Moreover, patient length of stay could be reduced by approximately 39,969 days resulting in **cost savings of over $93 million per year.** A previous study showed that if Pennsylvania hospitals staffed at levels mandated in California (5 patients per nurse) surgical mortality rates in Pennsylvania hospitals could be reduced by 11 percent (Aiken et al., 2010). The Pennsylvania legislation passed the PA General Assembly but has not been approved by the Senate which is required for passage.

- **New Jersey** has the Patient Protection and Safe Staffing Act (S2700) pending that restricts hospital nurses to care for no more than 4 patients at a time on adult medical and surgical units. A study of nurse staffing in New Jersey in 2005-6 (Aiken et al., 2010) estimated that if New Jersey staffed at California nurse ratios of no more than 5 medical and surgical patients per nurse at any time that nurse burnout, job dissatisfaction, and verbal abuse of nurses would be substantially decreased, and surgical mortality could be reduced by 14 percent.

In the U.S. there are two other types of legislated nurse staffing policies besides ratios that aim to improve nurse staffing adequacy in hospitals. One is **mandated hospital nurse staffing committees,** usually required to be comprised of at least 50% direct care nurses, to decide upon nurse staffing levels and skill mix. This is the most common form of hospital nurse staffing legislation in the U.S. currently implemented in 8 states (Connecticut, Illinois, Nevada, New York, Ohio, Oregon, Texas, Washington). Mandated hospital nurse staffing committee legislation is often considered a compromise in highly contentious debates between hospital stakeholders over mandated minimum nurse staffing ratios. Research suggests that nurse staffing committees, at least in the U.S. context, are not associated with improved nurse staffing or reductions in large staffing variation across hospitals in the same jurisdiction—a major goal of mandated minimum nurse staffing ratios. Moreover, there is no evidence that nurse staffing committees significantly improve nurse wellbeing and retention or patient outcomes. The lack of impact of mandated staffing committees in the U.S. on nurse wellbeing and nurse staffing adequacy is likely associated with the country's largely private hospital system where hospital boards of trustees have fiduciary responsibility for deciding upon hospital expenditures rather than any branch of government or hospital committee mandated by government.

Another policy option employed in the U.S. as an alternative to mandated nurse staffing ratios is mandated **publicly reported nurse staffing by hospitals**. Five states have mandated public reporting, and another three states have voluntary public reporting. There is little public transparency in hospital nurse staffing in any jurisdiction. In theory, mandating public reporting of hospital nurse staffing provides comparative information to consumers (and the media) that would allow them to make informed decisions about their choice of a hospital and could motivate hospital administrators sensitive to competitive forces to invest more in nurse staffing. Research suggests that mandatory reporting by hospitals of nurse staffing is, by itself, not an effective policy to significantly improve nurse staffing or nurse wellbeing and patient outcomes

(de Cordova et al., 2019). The implementation of current policies is hampered by lack of standardized definitions of nurse staffing that enable comparisons across hospitals and the absence of consumer friendly and publicly accessible methods for communicating nurse staffing information. There is little evidence that consumers in states with mandatory public reporting of hospital nurse staffing are accessing or acting upon the information. The New York legislation, for example, requires consumers to submit a written request to a specific hospital for nurse staffing information for which the hospital must respond within 30 days—a scenario not likely to be useful in impacting actual hospital nurse staffing adequacy. The most consumer friendly healthcare website in the U.S. with information that enables consumers to compare quality outcomes across hospitals, the CMS website, hospitalcompare.gov, managed by the federal government, includes no information on hospital nurse staffing. The weight of the evidence of what kind of nurse staffing policies have the most impact on nurse wellbeing and retention and patient safety point to mandated minimum registered nurse-to-patient ratios over the alternatives of mandated nurse staffing committees, staffing frameworks or principles, or mandated public reporting of hospital nurse staffing (Aiken et al., 2022).

Australia

The state of **Victoria** (VIC) in Australia was the first jurisdiction in the world to enact hospital minimum safe nurse-to-patient ratios in 2000 in public hospitals. Victoria's ratios were first introduced under labor negotiations with the Victoria government and in 2015 were enshrined in legislation. Over time, the legislation has been amended to update ratios in certain specialties. There has not been much published research on the outcomes of Victoria staffing legislation, but a consensus is that the policy was instrumental in attracting more nurses to the public hospital sector (Gerdtz and Nelson, 2007). The state of **Queensland** (QLD) passed legislation and implemented minimum safe nurse staffing ratios in 27 public hospitals beginning July 1, 2016. Queensland is unique among jurisdictions implementing nurse ratio legislation in funding an independent, prospective evaluation of the impact of its policy (McHugh et al., 2020). Documentation of the success of the Queensland legislation in improving nurse wellbeing and patient outcomes (McHugh et al., 2021) was a catalyst for uptake of ratio legislation in other states and jurisdictions in Australia. **South Australia** legislated nurse-to-patient ratios that are expected to be state-wide by March 2026. **New South Wales** in February 2024 agreed to the first phase of nurse ratios rollout. The **Australia Capital Territory** (ACT) in February 2022 launched the first phase of nurse ratios in general medical surgical wards, acute aged care, and mental health. **Western Australia** does not yet have nurse ratios but in December 2022 committed to phase in minimum mandated nurse-to-patient ratios in public hospitals. Presently, most of Australia has agreed to and is in the process of implementing a policy of minimum mandated nurse-to-patient ratios in public hospitals.

Australia ratios across jurisdictions follow a generally similar pattern:

- Acute medical and surgical wards: a maximum of 4 patients per nurse (1:4) plus charge nurse on days; 1:4 plus charge nurse on afternoons; nights there is variation by jurisdiction from 1:6 in ACT, 1:7 in QLD, 1:8 in VIC.
- Only nurses with direct patient assignments can be counted in the ratios.
- Ratios can be met with RNs and enrolled nurses. Victoria limits enrolled nurses to 20%; other jurisdictions do not have limits on enrolled nurses but have general policies on nursing skill mix.
- Ratios apply only to public hospitals, which is most hospitals.
- There is no intent to prevent nurse-staffing better than the minimum.
- Flexible implementation of ratios allows averaging across nurses on a ward so that individual nurses may have over the 1:4 ratio as long as other nurses are under the ratio depending upon patient acuity. This is sometimes described as the "5-20 model" of 5 nurses caring for 20 patients. This is different from the ratio model implemented "at all times" for each nurse that is characteristic of U.S nurse ratio policies.
- Some states have adopted specific ratios for specialty units such as in Victoria with acute stroke unit at 1:3 plus charge nurse, hematology 1:3 plus charge nurse day and afternoon and 1:5 at night. Jurisdictions vary in whether there are specific ratios for ICU, emergency department, and mental health wards at this time.
- Some states have a staffing framework, such as the Business Planning Framework (BPF) in Queensland, that determines nursing and midwifery staffing and skill mix. Ratios legislation does not change the role of the staffing framework but sets a minimum legislated staffing level of RNs and enrolled nurses on prescribed units.

Impact of Queensland mandated minimum nurse-to-patient staffing ratio policy

The independent prospective outcomes evaluation of the Queensland nurse staffing policy is the gold standard for other jurisdictions. The Queensland policy evaluation is a quasi-experimental intervention study. Nurse outcomes, patient outcomes, patient safety, and cost savings were measured among 27 public hospitals subject to a minimum nurse staffing policy (i.e. intervention hospitals) and 41 hospitals not subject to the policy (i.e. comparison hospitals) at two points in time: prior to implementation of the policy (i.e. baseline) and two years after implementation (i.e. post-implementation) (McHugh et.al, 2020; McHugh et al., 2021). Evidence of the scientific and policy importance of the evaluation results is their publication in the highest impact scientific publication in healthcare, *The Lance*t (McHugh et al., 2021). The following is a summary of evidence that the Queensland ratio policy improved nurse and patient outcomes and resulted in cost savings:

- **There was a clear need for a safe hospital nurse staffing standard**. Before the policy was in place, nurse staffing levels varied significantly across Queensland hospitals. In some facilities, nurses cared for as few as three patients on adult medical and surgical wards, while nurses at other facilities were responsible for as many as 10 patients each.
- **The policy led to better nurse staffing in the intervention hospitals.** While staffing levels remained the same before and after the policy in comparison hospitals, the medical-surgical nurses at the intervention hospitals saw average reductions in their workload of nearly one patient per nurse, with some having three fewer assigned patients after policy implementation (McHugh et al., 2021).
- The staffing policy intervention was associated with **24% lower odds of nurses experiencing high burnout** and **27% lower odds of job dissatisfaction** among nurses in the intervention hospitals. No statistically significant differences in these outcomes were found among comparison hospitals. (Lasater et al., 2025)
- Intervention hospitals experienced a **42% reduction in the odds of nurses reporting poor/fair quality of care,** while comparison hospitals experienced a 36% increase in the odds of nurses reporting poor/fair quality of care during the same time.
- Intervention hospitals had **145 fewer deaths, 255 fewer readmissions, and 29,222 fewer hospital days** within two years than if they had not implemented the policy.
- **The policy yielded a good return on investment for the public.** In addition to better quality of care and patient outcomes, the savings due to fewer readmissions and shorter lengths of stay in hospitals was about $70 million (AUD), more than twice the cost of the additional nurse staffing (McHugh et al., 2021).

Canada

Background: Three provinces in Canada (Ontario, Alberta, and British Columbia) participated in the International Hospital Outcomes Study more than 20 years ago along with the U.S., England, Scotland, Germany, and New Zealand (Aiken et al., 2001). Those findings set the stage for ongoing discussions in these countries and others about the need for policies establishing safe nurse staffing standards in hospitals. The results in 2000 from hospital nurses across all 3 Canadian provinces showed:

- 33% of hospital nurses were dissatisfied with their jobs
- 36% experienced high burnout
- 17% intended to leave their hospital jobs within a year, and 29% of nurses under 30
- 65% of nurses reported there were not enough nurses to provide quality care
- 70% of nurses were not confident that patients could care for themselves after discharge

- 61% of nurses had experienced verbal abuse.

The context at the time was toward reengineering hospital nursing following industrial models of productivity rather than addressing nurses' concerns. Further research in Ontario showed significant variation in nurse-to-patient ratios across hospitals in the province and replicated findings from the U.S. and England showing that patients admitted for general medical and surgical problems had a significantly higher risk of death in hospitals in which nurses were assigned more patients each (Torangeau, 2006). Thus, research provides evidence that hospital nurse understaffing in Canadian hospitals is not new but policies to address nurse understaffing have slow in emerging.

British Columbia is the first Canadian province to follow the lead of other jurisdictions globally in introducing nurse-to-patient mandated minimum hospital nurse staffing. In 2023, British Columbia introduced a policy initiative targeting the retention, re-engagement, and recruitment of nurses including the establishment of minimum nurse-to-patient ratios (mNPRs) (B.C. Ministry of Health, 2024). Staffing ratios in the hospital setting are unit-level rather than on a per nurse basis. Registered nurses (RNs), registered psychiatric nurses (RPNs), and licensed practical nurses (LPNs) are included in the ratio. The hospital-based mNPRs went effect in the Fall of 2024. BCNU has commissioned an independent scientific evaluation of the impact of the B.C. nurse staffing policy in 58 BC hospitals by the University of Pennsylvania following the design of Penn's successful evaluation of nurse-to-patient ratio policy in Queensland AU. Surveys of nurses will be collected at two points in time before the policy takes effect and two years later; patient outcomes data from CIHI for the same hospitals will be linked to nurse staffing and nurse outcomes (Lasater et al., 2025).

British Columbia required ratios adopted in 2024:

- Emergency department: 1:3 for general emergency, 1:4 for short-stay observation and medical/surgical short stay, and 1:1 for trauma and critical care
- NICU: 1:3 for Tier 3 sites, 1:2 for Tier 2 sites, and historical average patient levels of care for Tiers 5 and 6 sites
- PACU: 2:1 or 1:2, following the National Association of Peri- Anesthesia Nurses of Canada (NAPAN) standards
- Maternity: 1:3 for antepartum, 1:1 active and 2:1 birth for labor and delivery, and 1:3 for postpartum
- Operating Room (OR): 2.5:1
- Alternative Level of Care: 1:7
- General medical/surgical inpatient: 1:4
- Rehabilitation: 1:5 during the day and evening, and 1:7 at night
- Palliative: 1:3

- Focused (Special) Care: 1:3
- High acuity/step down: 1:2

Results of 2024 B.C. baseline study

B.C. hospital nurse staffing before policy implementation (2024)

- There is considerable variation in actual staffing across B.C. hospitals.
- The average medical-surgical nurse cares for 5 patients at a time (range: 1.8-7.1).
- Night shift nurses care for one additional patient at a time, on average.
- 68.3% of nurses reported there were not enough staff.
- 77.3% of nurses reported their workloads were unsafe for patients.
- 63.6% of nurses reported that their work was frequently interrupted or delayed because of insufficient staff.
- 47.4% of nurses said they did not receive all their entitled breaks during their last shift; 68.4% increased their patient assignment so another nurse could get their break, and 41.7% of nurses missed their break because there was not adequate staffing to cover their patient assignment.

Nurse outcomes at baseline by hospital

- There were significant differences in nurse wellbeing across B.C. hospitals.
- 59.4% of nurses experienced high burnout (range: 14.3%-90% by hospital).
- 12.3% of nurses reported severe moral distress.
- 31% of nurses would not recommend their hospital as a good place to work.
- 36% of nurses were dissatisfied with their job.
- 19.3% of nurses intended to leave their hospital within a year; the most cited reasons for planning to leave were inadequate nurse staffing (66.6%), burnout (61.9%), and dissatisfaction with management/administration (50.2%).
- More than half of nurses reported experiencing emotional abuse, 44% experienced physician violence, and 46% experienced a work-related physical injury.

Patient outcomes, quality, and safety at baseline by hospital

- The mean inpatient mortality rate (HSMR) among the 58 study hospitals was 95.4 but ranged substantially across hospitals in the province (range 26-180).
- Nearly 10% of patients in the average hospital were readmitted within 30 days of discharge (range: 7.9%-13.8%).
- 36.8% of nurses rated the quality of nursing care as fair to poor.
- 32.0% would not recommend where they work to family or friends needing care.
- Most nurses (70.6%) gave their hospital an unfavorable grade on patient safety (range by hospital: 14.3%-88.9%).

Association between actual staffing and nurse and patient outcomes at baseline

- One additional patient per nurse is statistically significantly associated with poorer job outcomes for nurses, poorer patient outcomes, less favorable ratings of quality of care and patient safety.
- One additional patient per nurse in the average nurse's workload is associated with a nearly 5 percentage-point increase in percent of nurses with high burnout, a 4 percentage-point increase nurses who would not recommend their hospital as a good place to work, and a 2 percentage-point increase in nurses intending to leave their hospital.
- Regarding **nurse safety**, one additional patient per nurse was associated with a 3 percentage-point increase in emotional abuse of nurses, a 4 percentage-point increase in physical violence directed at nurses, and a 4 percentage-point increase in work-related physical injuries to nurses.
- Each additional patient per nurse is associated with a 7 percentage-point increase in the Hospital Standardized Mortality Ratio.

Conclusions of B.C. nurse staffing independent evaluation baseline findings (Lasater et. al, 2025):

- There is adequate evidence from real time primary data collection from B.C. hospital nurses and data on outcomes for their patients from CIHI that the new hospital nurse staffing policy is justified by the large variation across hospitals in nurse staffing and related negative consequences for nurse well-being and patient outcomes.
- Statistical models suggest if hospitals across British Columbia can successfully adhere to the mandated minimum nurse-to-patient ratios, they are likely to see improvements in outcomes for nurses and patients.

Other jurisdictions that have passed nurse staffing policies over the past decade:

Ireland, Wales, and most recently **Scotland** have implemented safe nurse staffing policies over the last decade. None of these policies stipulate minimum nurse-to-patient ratios. A brief description is provided below:

Ireland has no fixed staffing ratios but a framework guiding staffing decisions that links staffing decisions to patient acuity and quality metrics. Ireland's nurse staffing policy passed in 2018 is guided by a "Framework for Safe Nurse Staffing and Skill Mix" that determines appropriate staffing levels based on individual needs utilizing a validated acuity tool to calculate required nursing hours per day. Clinical nurse managers do not take a direct patient assignment. Based on a review of evidence, skill mix was set at 80% registered nurses and 20% nursing assistants. Quality metrics are monitored to evaluate staffing adequacy. The framework was piloted on a limited number of units initially and has now been rolled out to more hospitals. Peer reviewed research publications on the policy could not be identified (Drennan et al., 2018).

Wales passed the Nurse Staffing Levels (Wales) Act 2016 with no fixed nurse staffing ratios. The Act ensures that "nurse staffing levels within the Welsh NHS are sufficient to provide safe, effective and quality nursing care to patients at all times". The Act places "an overarching duty on all NHS health service bodies in Wales (Local Health Boards and NHS Trusts) to prioritize having enough nurses. NHS health services bodies in Wales must designate persons to calculate safe, locally appropriate nurse staffing levels. The Act gives nurses' professional judgement a formal role in calculating how many nurses and health care support workers are needed on certain wards. The requirement for safe nurse staffing began with adult inpatient wards in acute hospitals and was extended to other settings. NHS health services bodies must report to the Welsh government on their compliance with the nurse staffing requirements and any actions taken in response to failings. A November 2023 report by the Royal College of Nursing Wales using 2018 data says the number of nurses on wards increased. My interpretation of the value of the Act, besides potentially improving acute hospital nurse staffing in the short term includes: direction from the Welsh government to service providers that nurse staffing adequacy was a priority; that nurses should be involved in deciding upon adequate nurse staffing levels; that NHS providers would be responsible for reporting on nurse staffing adequacy to the Government; and it put a spotlight on the need for the NHS to improve nurse recruitment and retention. No peer reviewed scientific evaluations were located.

Scotland in 2019 legislated the Health and Care Staffing Scotland Act. The Act does not require minimum nurse-to-patient ratios. The Act places a legal duty on NHS providers to make sure there are always qualified staff in the right numbers for safe and effective care. The Act requires staffing decisions based upon guiding principles, duties, and a common staffing method. The Scottish government is responsible for ensuring enough registered nurses and other health professionals to meet needs of hospitals. An independent evaluation was undertaken in 2024 (Lake et al., 2025) as the policy implementation began. Results were as follows:

- Less than 9% of Scottish nurses reported that nurse staffing was appropriate to provide safe, high-quality care on every shift.
- Only 17% of nurses reported the quality of care on their unit was excellent.
- Only 10% of nurses gave their hospital an excellent grade on patient safety.
- Most nurses disagreed that current staffing levels met the eight guiding principles.
- Most nurses reported the common staffing method and duties were followed only occasionally.
- Only 20% of nurses planned to stay in the same nursing job.
- 68% of nurses intended to leave nursing over the next year.
- Conclusions (Lake et al., 2025):
    - The law's provisions are complex to implement.
    - Few nurses report that the law's overarching goal is being met at the point of implementation;
    - Few hospital nurses in Scotland see nursing as a long-term career;

- The law may not be able to reverse the trend of exiting nurses.
- A follow-up study by the Lake et al. team is planned after further implementation.

The policies of Ireland, Wales, and Scotland are a small step forward in governments formally recognizing the importance of hospital nurse staffing adequacy but are unlikely to be enough to leverage significant improvements in nurse retention and wellbeing and patient safety. In my opinion, these policies resemble mandated nurse staffing committees in the U.S. that have not been shown to be effective in improving overall levels of nurse staffing, reducing nurse staffing variations across hospitals in the same jurisdictions, or improving nurse wellbeing and retention or patient outcomes. Queensland, AU had an existing staffing framework in place, the Business Planning Framework (BPF), before legislating mandated minimum hospital nurse staffing ratios. Queensland retained the BPF but still incorporated mandated minimum nurse-to-patient ratios, thus achieving significant improvements in nurse staffing, nurse wellbeing, and improved patient outcomes by legislating mandated minimum nurse-to-patient staffing to enhance the effectiveness of the BPF (McHugh et al., 2021).

ONA: Describe the factors that influence the variability of hospital nurse staffing needs, including the setting, and whether these vary by jurisdiction.

Patient "acuity" together with nurse workload factors affect the number of nursing care hours per patient day required and the skill levels and qualifications of the provider needed for each patient. Acuity encompasses instability in the patient's condition, the sheer amount and complexity of required nursing interventions, the level of dependency of the patient, and risk factors for poor outcomes. Nurse workload factors are relevant as well. These include admissions/discharges/transfers happening on a nurse's shift; patient/family education; mentoring nursing students/new to practice nurses; patient psychosocial needs; time consuming nursing interventions such as wound and ostomy care and patient incontinence; patient safety concerns including fall risk, sensory and communication deficits (vision, hearing, non-English speaking); highly agitated or confused patients or restraint use.

There are many different acuity tools available to quantify the above factors resulting in an overall score for each inpatient for each shift. Research shows that acuity tools are useful in equitably distributing the workload across the number of available nurses. Acuity tools are useful in matching specific patients to specific nurses, for example considering whether the nurse is experienced or new to practice and the complexity of the patient's needs. The use of acuity tools has been shown to increase nurse job satisfaction (Ingram & Powell, 2018). However, acuity tools have not been effectively used alone in solving chronic nurse understaffing which is most often due to insufficient budgeted positions or vacant positions.

One of the frequent criticisms of mandated minimum hospital nurse staffing policies is "one size doesn't fit all". However, as evident from this review, mandated safe nurse staffing policies do not mandate one staffing ratio for all patients. A guiding principle for nurse staffing policies is

that they set a safe staffing floor to eliminate unsafe low nurse staffing levels, but they do not restrict staffing better than the minimum. Indeed, most jurisdictions with minimum safe nurse staffing policies require the use of acuity tools to ensure that individual patients receive the level of nursing care they need. Moreover, it is common for minimum nurse staffing standards to differ by type of unit recognizing that specialty units represent a form of aggregating inpatients by their level of nursing acuity. Thus, the minimum safe nurse staffing standard is different for ICUs than for general medical and surgical units in all mandated safe nurse staffing policies.

Another criticism of mandated minimum hospital nurse staffing policies is that professional nurses are the most qualified to determine the level of nurse staffing each patient needs, not the government. In theory, most would not dispute that principle. However, a great deal of research in multiple countries shows that nurses in most hospitals do not have the authority to decide upon staffing levels for their patients. If they did, we would not observe the high variation in nurse staffing ratios for similar patients from hospital to hospital within the same jurisdictions. As noted above, in New York State some hospitals have an average nurse assignment of fewer than 4 adult medical-surgical patients per nurse while other similar hospitals assign an average of over 8 adult medical-surgical patients to each nurse. Nurse staffing variation is common in all jurisdictions from centrally managed health systems like England to highly decentralized health systems like the U.S. And that significant variation in nurse-to-patient staffing ratios explains why outcomes such as patient mortality, healthcare associated infections, readmissions, length of stay, and patient satisfaction and outcomes such as nurse burnout and intent to leave vary so much between hospitals in the same jurisdictions.

The similarity in legislated and proposed hospital mandated nurse staffing levels across jurisdictions in countries with differently organized and financed health care systems is notable. Most jurisdictions, except California whose ratio policy is 20 years old, have set nurse-to-patient ratios on adult medical and surgical units at 1:4 and ICUs at not greater than 1:2. Countries differ in whether they allow nurses to accept higher patient assignments on the night shift as compared to day and evening shifts. Australia includes jurisdictions that allow nurses to care for more patients at night. Policies in the U.S. do not recognize time of day difference in nurse-to-patient staffing requirements and require the ratios to be in effect at all times. British Columbia ratios are applicable 24 hours a day, except for rehabilitation units where minimum staffing requirements are less on evening and night shifts than during the day.

Relevance in Ontario of experience and research on nurse-to-patient ratios in other jurisdications

Ontario is considering the adoption of a nurse-to-patient staffing policy similar to the mandated nurse-to-patient ratio requirements for hospitals in British Columbia. Relevant background:

- Across Canada, 4 in 10 nurses intend to leave the profession, leave their job, or retire within the next year.

- 7 in 10 nurses report staffing and workload as extremely important to them in considering leaving (CFNU, 2024).
- Thus, addressing nurse understaffing in Ontario hospitals by establishing safe minimum nurse staffing requirements could potentially reduce expensive nurse turnover and avoid loss of existing hospital nurses.
- Only 64% of RNs in Ontario work full time; 18% work part time; 18% are not employed in nursing in Ontario (CIHI, 2023).
- Thus, Ontario appears to have a reservoir of nurses who might be attracted back to hospital clinical practice and/or motivated to work more hours if part time, if patient workloads were more manageable.

Issues for consideration:

- Ontario has low nurse-to-population ratio, or supply of nurses, compared to other Canadian provinces.
- Ontario has 661 nurses per 100,000 residents compared to the Canadian national average of 814/100,000.
- Would the pending policy to require hospitals in Ontario to staff at a higher level given the relatively low supply of nurses in Ontario (nurses per 100,000 people) possibly result in some hospitals or other healthcare settings reducing services thus adversely influencing the public's access to care? The experience of the U.S. state of California is relevant. California had and still has one of the lower nurse-to-population ratios among U.S. states. California passed legislation like that being considered in Ontario over 20 years ago. Considerable evidence shows the mandated patient-to nurse staffing legislation was effective in attracting inactive nurses within California back into hospital practice and for part time nurses to work more hours. So, there is precedent for a jurisdiction with similar nurse workforce conditions to Ontario to successfully implement and sustain over time a policy requiring safe nurse staffing without having unintended adverse consequences for closure of services that would affect access to care.
- I have not been able to locate estimates of how many Ontario hospitals would have to employ additional nurses to meet the staffing requirements being proposed, and in total how many additional nurses would be required. That information could be obtained from a baseline survey of hospital nurses in Ontario before implementation of ratios similar to the study reported previously in British Columbia. Such a baseline could also provide a benchmark against which to measure improvements in staffing resulting from the legislation and the impact of those improvements on nurse wellbeing and patient outcomes.

Ontario Proposed Minimum Registered Nurse to Patient ratios (RNPR), 24 hours per day, 365 days of the year, for each setting/unit in the hospital:

Unit Type	Ratio
Adult Medical Surgical	1:4
Rehabilitation	1:5
Palliative Care	1:3
Step Down	1:2
Telemetry	1:4
Critical Care/Intensive Care	1:1
Pediatric Medical/Surgical	1:3
Pediatric Step Down	1:1
Maternity/Antepartum & Post Partum	1:3 (3 dyads)
Labor & Delivery/Intrapartum	1:1
Mental Health	1:4
Mental Health Intensive Care/Intensive Observation Areas	1:2
Post Anesthetic Care Unit	1:2
Operating Room (including procedures)	1:1
Outpatient Dialysis	1:3
Emergency Departments	
Triage	2 RNs at all times.
Trauma/Resuscitation	1:1
Visits	1:3

Notes: The ratios are minimum, meaning units may be upstaffed if appropriate. Every unit shall have a charge RN and they will not have a patient assignment.

Conclusions

Numerous jurisdictions around the world have successfully adopted public policies to improve hospital nurse staffing. There is a substantial body of evidence globally and in Canada that improving hospital nurse staffing is associated with lower nurse burnout, job dissatisfaction, intent to leave current job, and greater nurse safety in terms of fewer reports of emotional and physical abuse. Policies with the greatest evidence of impact on improving nurse wellbeing and retention have been those that establish minimum safe nurse-to-patient ratios. Across jurisdictions, there is little published evidence of adverse unintended consequences associated

with implementation of minimum nurse to patient ratios. Depending upon health system organization and financing in different jurisdictions, there is evidence that improving hospital nurse staffing results in cost savings through reducing expensive nurse turnover, avoiding expensive adverse patient outcomes, avoiding hospital readmissions within 30 days of discharge, and reducing hospital length of stay; these savings offset the cost of employing additional nurses.

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(Note: There are literally hundreds of published research papers documenting the association of hospital nurse staffing and nurse wellbeing and patient outcomes. The references here represent selected, representative published evidence. Access to full research papers and reports cited is provided by clicking on the highlighted link.)

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