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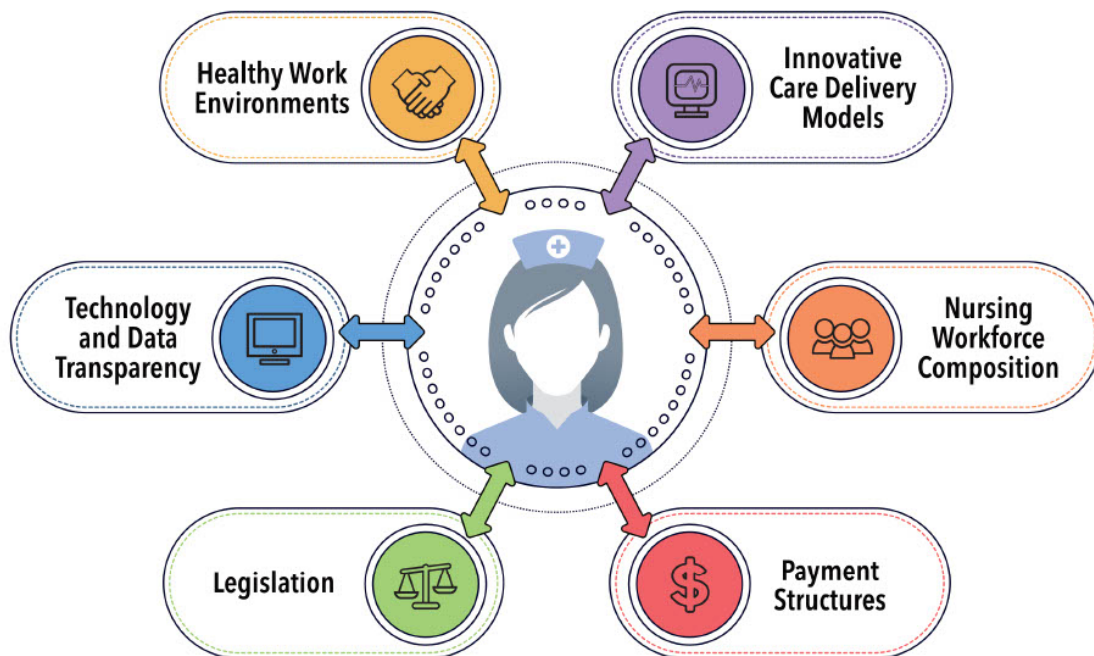

Summary

There are many ways to increase nurse retention, increase staff and patient satisfaction, increase clinical quality, and improve the delivery of healthcare services. There is no one-size-fits-all solution, but there are many innovative solutions that states, and healthcare organizations can consider. These solutions include a focus on healthy work environments and innovative care delivery models, nursing workforce composition changes and payment structures, increased use of technology, data transparency, and mandated nurse staffing legislation. We need nurses at the forefront implementing multidisciplinary approaches with all stakeholders in the health ecosystem working together to advance patient safety and improve patient outcomes.

Exploring the Complexity of Staffing Ratios to Meet Patient Needs

State nursing organizations, legislators, and patient safety experts have been advocating for safe staffing requirements for several years. They understand the positive outcomes that result from matching the right nursing 'dose' to meet specific patient needs. In many parts of the country though, staffing is suboptimal, and these conditions drive nurses away from working at the bedside. In a 2022 survey of 2800 nurses, 56.8% report staffing has been getting worse recently[i]. Nursing staffing impacts hospital finances, staff and patient satisfaction, and clinical quality. However, the country is divided on how to handle this issue. Although some states use legislation to set staffing standards, safe staffing is dynamic and prioritizes meeting patient needs. The goal of finding safe staffing solutions is to increase patient safety and clinical quality, increase nurse retention and staff satisfaction, and improve the delivery of healthcare services with increased patient satisfaction. There is a toolbox of solutions available to accomplish these goals that include nurse to patient ratios, healthy work environments and innovative care delivery models, nursing workforce composition changes and payment structures, increased use of technology, data transparency, and mandated nurse staffing legislation.

Mandated Ratios

Many inpatient hospitals across the United States strive to follow specific nurse-to-patient ratios considered safe for patients. Staffing ratios have developed over time using productivity databases, nursing hours per day requirements, patient acuity tools, regulated standards for clinical skill mix, traditional benchmarks through productivity databases, and the National Database of Nursing Quality Indicators (NDNQI) benchmarking database, to name a few. Currently, there is not a national requirement for mandated nursing ratios, but four states utilize mandated nurse-to-patient ratios embedded in written legislation. However, in 2023 Ohio Senator, Sharrod Brown, introduced a federal bill that if passed would amend the Public Health Service Act to have direct care registered nurse-to-patient staffing requirements. The Public Health Service Act (PHSA) requires the Department of Health and Human Services (HHS) to develop a National Health Security Strategy that considers the public health and medical needs of at-risk individuals. The act defines "at-risk individuals" as children, pregnant women, older adults, individuals with disabilities, and those that would have functional needs in the event of a public health emergency[ii]. In the Nurse Staffing Standards for Hospital Patient Safety and Quality Act of 2023, the Senate Health, Education, Labor, and Pensions subcommittee suggested nurse-to-patient ratios of:

- 1:2 in an intensive care unit (ICU)
- 1:3 in a step-down telemetry unit where patients are not stable enough to be on an acute care floor, but not in a critical enough condition to be in the intensive care unit
- 1:3 in an emergency department
- 1:5 in a medical-surgical unit[iii]

A similar bill from 2021, the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act, proposed goals to promote quality care, increase quality measures to protect

patient care, reduce length of stay, address the registered nursing shortage, establish minimum direct care ratios that take patient acuity into account, and establish safe staffing standards[iv]. Neither the 2023 nor the 2021 bills ever became laws, highlighting the mixed support for legislation. The four states with written legislation in place mandating ratios to be followed along with penalties for not upholding the requirements are California, Massachusetts, New York, and Oregon. Other states, such as Illinois, New Jersey, Rhode Island, and Vermont require public reporting of ratios, but do not mandate a specific ratio in each unit[v]. Additionally, states such as Washington, Connecticut, Colorado, Illinois, Nevada, Ohio, and Texas require hospitals to have an accountable nurse-driven staffing committee. Many states are introducing legislation around these different types of laws or mandatory specific minimum ratios. Hawaii is one of these states. In Hawaii's HB 1244, the legislature proposes to have a nursing ratio mandate that requires hospitals to follow mandatory specific minimum ratios[vi]. Therefore, many states take different approaches to using legislation to set staffing standards.

Nurse-to-Patient Ratios

It is undeniable that nurse-to-patient ratio mandates affect stakeholders across the healthcare continuum: patients, nurses, physicians, hospitals, health systems, and payors. Patient outcomes can be affected by the number of patients a nurse is assigned. Having too many patients per nurse could result in worse patient outcomes. Considering sepsis patients, each additional patient per nurse was associated with 9% increased odds of 30-day mortality, 10% increased odds of 60-day mortality, 8% increase in 7-day readmissions, and a 10% increased risk of a longer length of stay[vii]. Similarly, staff at an organization may lose their job or have burnout due to having too many patients. About 61% of nurse respondents of a study reported leaving or considering leaving their job due to burnout attributed to inadequate staffing[viii].

Clinicians can take better care of their patients and spend more quality time with them when patient acuity and the number of assigned patients is taken into consideration. Higher clinical quality helps hospitals and health systems by having less costs for reimbursement and healthcare-associated conditions. Healthcare organizations have better leverage with payors if they have higher clinical quality and less reimbursement costs. Additionally, patient ratios affect everyone who has had an inpatient stay and receive their routine care with primary care physicians. Maintaining consistent safe patient ratios across the system makes primary care more effective if healthcare staff can spend more time educating patients during their inpatient stay and before they are discharged.

Having fewer patients per nurse increases patient satisfaction as well. In one study in England, 66,000 patient responses found 14% of patients rated their care as excellent when there were not enough nurses whereas 57% found their care to be excellent when they reported there were usually enough nurses[ix]. A study by Linda Aiken from 2011 surveyed nursing care across the United States in various types of work environments. The data analyzed in the study was collected from 2005 to 2007. When analyzing patient deaths, the study showed how decreasing workloads by one patient-to-nurse does not provide much support in poor work environments[x]. However, in 'average' environments decreasing workloads decreases the odds on both deaths and failures in hospitals by 4%. In hospitals with the 'best' environments, adjusting ratios decreased

deaths by 9%. The study calculated work environments and created categories of best environment, average environment, and poor environment using the Practice Environment Scale of the Nursing Work Index-Revised (PES-NWI). This is a 31 item Likert-type scale survey that is extensively validated. In this study, four of five subscales created by the survey were averaged. Poor work environments had an average value of less than 2.95. Average work environments had an average value between 2.65 and 2.95 and best work environments had an average value that was greater than 2.95. Nurses having a reduced workload showed a 13% decrease in patient deaths for elderly patients hospitalized with common surgical and medical conditions. There was also a 5% decrease in the hospital length of stay for surgical patients and a 9% decrease for medical patients. Each patient reduction per nurse was associated with a 6-8% decline in readmissions within 30 days of discharge. Standardized nurse to patient ratios is one possible solution for healthcare organizations to create better patient outcomes and retain healthcare staff, however this can be complicated by the ongoing nursing shortage.

The Nursing Shortage

One big factor that continues to pose a challenge for hospitals to meet mandated ratios is the ongoing nursing shortage. According to a study conducted by the Health Resources and Services Administration (HRSA) in November 2022, federal authorities project a shortage of 63,720 full-time Registered Nurses in 2030[xi].

Nursing shortages date back to the mid-1930s when there was a higher demand for nurses due to increased hospital use and patients requiring more technological treatments[xii]. Part of this shortage was also because 25% of the nurses in the workforce joined the army. At that time, healthcare administrators identified the education model they were using as not attractive to young people because many of the potential nursing students wanted to help with the war. However, the education model required the students to be in school for three years before they could be a nurse. Additionally, nurses' salaries were low, the job required long hours, and many hospitals had requirements that nurses had to live on the hospital grounds. In response to the nursing shortage at the time, the government enacted the 1943 Bolton Act to provide $160 million for nursing education and create the Cadet Nurse Corps. This was considered a success. 160,000 students joined the Nurse Cadet Program. This act helped to decrease the length of the educational period, eliminate the requirement to serve in the military, and it provided free education along with uniforms and a monthly stipend to nursing students. Additionally, 80% of these students were able to provide patient care in hospitals during the early war years.

The next big nursing shortage was during World War II and beyond into the 1960s. In 1964, the government passed the Nurse Training Act to increase the supply of nurses. After Medicare and Medicaid were created as part of the Social Security Amendments of 1965, hospitals began offering nurses better salaries and encouraging more nurses to join the workforce. In 1985, the Communication Workers of America (CWA) negotiated their first staffing committee language in a contract. The CWA is a labor union that started advocating for workers in the communications industry but expanded to represent United States and Canada workers in news media, the airline industry, broadcast and cable television, higher education, public service, manufacturing, and health care[xiii]. In 1999, after a nearly decade-long battle, the

California Nurses Association successfully lobbied their state legislature and won A.B. 394, which mandated minimum staffing ratios in California's healthcare facilities. This law took effect in 2004. On May 4, 2021, New York Legislature passed a package of bills for safe staffing[xiv]. Even with the progress that has been made in addressing challenges to allow for enough nurses for patient safety and staff satisfaction, our country still faces similar challenges today as it did in the past. Now more than ever, it is important that the issue of safe staffing is examined from multiple angles, so that effective solutions can be implemented - especially considering the increasing demand from a large aging population.

California, Massachusetts, New York, and Oregon

There have been both successes and challenges to the mandates in these four states. California enacted their legislation in 2004. Title 22 of the California Code of Regulations, Section 70217(a) required hospitals to maintain ratios of 1:4 or fewer in cardiac telemetry units, 1:4 in specialty care units, 1:5 in medical/surgical units, 1:2 in critical care units, 1:4 for pediatric services, and 1:2 for mothers who are in active labor, to name a few of the requirements[xv]. Shortly after these ratios went into effect, a study conducted by the California Health Care Foundation, an independent nonprofit[xvi], showed that there was no significant change in patient length of stay or adverse patient safety events. However, there was an increase in nursing skill mix[xvii]. The number of hours worked per patient by registered nurse also increased. The report highlighted how California hospitals at the time had difficulty with the compliance of the ratios and giving meal breaks. Some nurses were concerned with the break in continuity of care to fulfill the requirements of the legislation.

Many healthcare leaders expect that mandated ratios encourage hospitals to increase nurse staffing, which is true in some cases. One study found California has increased RN hours per patient day and increased the number of nurse assistive personnel (NAP) hours compared to states that just have a legislated staffing committee requirement or public reporting requirement[xviii]. A recent longitudinal analysis that compared hospital nursing staff in California to other states before and after the Great Recession found higher staff ratios may help protect hospitals in times of recession[xix]. However, the California Healthcare Association claims that 85% of the state's hospitals are unable to comply with the new ratios. The State Department of Health Services responsible for enforcing the law found 18 staffing deficiencies at hospitals since the law went into effect[xx]. In 2019, California had to begin imposing penalties of $15,000 for the first violation and $30,000 for each subsequent violation of nurse staffing ratios. Hospitals are not subject to penalties if they can demonstrate the fluctuation in required staffing levels was uncontrollable and unpredictable and prompt efforts were made to maintain the required staffing requirements. The hospital also had to prove they immediately used and exhausted the hospital's on-call list of nurses and the charge[xxi].

Massachusetts legislation only includes a mandate for the intensive care unit (ICU), and it requires the use of an acuity tool[xxii]. One study of the Massachusetts General Law c. 111, § 231, which regulates the staffing assignments of nurses to patients in the ICU based upon patient acuity tools, failed to demonstrate improvements in patient mortality or complication rates

among critically ill patients, potentially due to small effects on nurse staffing. In line with prior studies outside of the ICU, the study of ICU nurse staffing suggests state-wide legislation strategies may not effectively improve patient outcomes[xxiii]. According to the Massachusetts Nurses Association, a 2023 study found a significant rise in the number of nurses who viewed understaffing as the greatest barrier to providing care, despite nurse-to-patient ratio mandates. In 2015, 16% of nurses held this view; by 2023, that number had climbed to 56%[xxiv].

The New York Staffing Law codifies mandatory staffing requirements at all hospitals throughout the state. It requires hospitals to create committees made up of nurses and frontline staff who meet with management to create staffing plans enforceable by the New York Department of Health with penalties[xxv]. The law also makes staffing data at every hospital public. This data, in their submitted forms, is posted on the New York Department of Health website[xxvi]. Research conducted by Linda Aiken in January and February of 2020 suggested standardizing nurse-to-patient ratios to the recommended 1:4 ratios in medical-surgical units could prevent 4,370 deaths of elderly New York Medicare patients, resulting in over $720 million saved for hospitals over the span of two years due to shorter lengths of stay and fewer readmissions[xxvii]. This study was specific to New York, therefore demonstrating that New York has had some success in increasing their clinical quality with their legislation. However, The New York State Nurses Association report has found widespread understaffing and lack of compliance with following the laws as intended[xxviii]. Only 33% of hospitals have been posting their staffing plans and in 2024 ICU units were only able to staff according to the mandates 50% of the time.

Oregon has been one of the newer states to enact a nurse-to-patient mandate law. In Oregon, some of the ratios outlined in the new law are similar to California. In the ICU, direct care registered nurses are assigned no more than two patients. In medical-surgical units, direct care registered nurses are assigned to no more than five patients. In cardiac telemetry units, nurses are assigned to no more than four patients to name a few[xxix]. House Bill 2697, the Hospital Staffing Law for Registered Nurses and Certified Nursing Assistants, passed in 2023 and went into effect September 2023. This new law requires Professional and Service Staffing Committees to be established with staffing plans created by December 31st of that same year. By June 1, 2025, hospitals will receive penalties for violations of the law[xxx]. Interestingly, the Oregon Association of Hospitals and Health Systems supported this legislation[xxxi].

Limitations of Mandated Nurse-To-Patient Ratios

In contrast to the Oregon Association of Hospitals and Health Systems, some other state hospital associations are against mandated nurse-to-patient ratio legislation. The Minnesota Hospital Association and the American Hospital Association both urge policymakers to think carefully before passing these mandates. The Minnesota Hospital Association states nurse-to-patient mandates may force hospitals to scale back capacity[xxxii]. The American Organization for Nursing Leadership (AONL) also warn policymakers how mandated staffing standards takes away from the flexibility and real-time clinical judgment needed for nurses[xxxiii]. Nurse to patient ratio mandates can affect patients' access to care and staff jobs if healthcare organizations are forced to close due to adopting legislation and being unable to supplement their workforce. For

example, Rochester Regional Health in Rochester, NY, had to temporarily close beds to find a solution to the nursing shortage due to the New York mandated ratios. To be compliant with the mandated ratios in New York, the hospital had to supplement 40% of their nursing staff with travel nurses, resulting in the hospital spending over $75 million on staffing in 2024[xxxiv].

The American Hospital Association (AHA) also believes proposed staffing mandates will make workforce shortages worse and limit access to care. The AHA does not consider numerical staffing thresholds to be consistent with modern clinical practice[xxxv]. Other than capacity constraints, some experts believe there are other unintended consequences of mandated nursing ratios. For example, increasing nurse staffing for legislation may pressure hospitals to hire temporary agency nurses. The average weekly cost of a temporary nurse to staff a hospital soared from $1,896 in January 2020 to $3,782 in December 2021, almost double[xxxvi]. The 2022 AHA Cost of Caring report details the impact of hiring travel nurses. In 2022, travel nurses accounted for 40% of the labor expenses for nurses, which grew from pre-pandemic levels in 2019, suggesting the prices charged by staffing companies were a primary driver of higher labor expenses for hospitals[xxxvii]. There was a 213% increase in hourly rates of travel nurses compared to 2019. The 2019 average "margin" retained by staffing agencies for travel nurses was 15% and it increased to 62% in January 2022. High reliance on travel nurses makes it difficult for healthcare organizations to invest those resources in existing employees which can lead to low morale and high turnover.

Alternate Solutions to Consider

Nurse-to-patient ratio mandate legislation is just one of the solutions that may work for healthcare organizations. We need to continue to identify innovative ways to advance clinical quality, allow nurses to work at the top of their license, and help with the staffing shortages. In response to this need, the American Nurses Association (ANA) and other leading nursing advocacy organizations created the Nurse Thinktank Solution Toolkit that details innovative recommendations to address current challenges[xxxviii]. These recommendations focus on rethinking delivery models, examining nursing productivity frameworks, using technology and hospital-at-home programs, encouraging states to join the compact licensure and to seek Magnet® status, and inspiring nurses to take ownership of the future of nursing.

Healthy Work Environments and Innovative Care Delivery Models

Healthy work environments and innovative care delivery models are two of the priority topics outlined in the Thinktank Solution Toolkit[xxxix]. It is important to address physical safety and ensure psychological safety by advocating policymakers to codify workplace violence tracking and prevention. Federal regulation will show hospital administrators and clinicians that clinician safety is just as important as patient safety. Healthy work environments also involve investigating minimum safe staffing requirements for specific patient populations and developing staffing standards to address the needs of patients. For the American Association of Critical Care Nurses (AACN), healthy work environments allow nurses to provide the best standards of care[xl]. They define healthy work environments as integrating six standards to help produce sustainable

outcomes. These standards include skilled communication, true collaboration, effective decision making, appropriate staffing, meaningful recognition, and authentic leadership. The AACN does not define an exact ratio for patient safety, but they have outlined seven standards for organizations to incorporate into their staffing plan[xli]. The standards include:

1) Direct care nurses must participate in all aspects of staffing including planning, implementation, and evaluation.
2) Hospital patient care areas establish, evaluate, and refine unit-specific guidelines based on how they impact patient and nurse outcomes.
3) All shift patient assignments are based on the accurate assessment of the current nursing workload generated by each patient's needs and align nurse competency with those characteristics.
4) Clinical leaders, such as charge nurses and nurse managers, are not included in staffing unless there is a crisis.
5) The staffing plans support the unique needs of nurses new to the unit.
6) Organizational staffing plans prioritize healthy work environments that drive nurse retention
7) Optimal patient outcomes and organizational staffing plans anticipate that critically ill or injured patients generally require a ratio of one to two patients.

The AACN Nurses in healthy work environments report less moral distress and greater psychological safety, less missed care associated with fewer hospital-acquired conditions and medical errors, and less burnout or job dissatisfaction[xlii]. Additionally, patients report greater satisfaction with the care received. Therefore, healthy work environments help advance clinical quality and patient safety and increase nurse retention and staff satisfaction.

The Thinktank Solutions Toolkit also recommends a tribrid care delivery model that includes onsite care delivery, IT integration of patient monitoring equipment, and ambulatory access to virtual/remote care delivery. This approach is expected to improve access, staff satisfaction and patient experience, resource management, and allow for the ability to have continuous measurements for improvement and sustainability. There are studies that support these solutions. For example, focusing on pathway programs that bring people in to support nurses such as LPNs cut the length of stay by 59%, therefore improving patient outcomes[xliii]. In this study, Dr. Nicholas Potnis, DNP, RN, implemented the team nursing model in an observation or clinical decision unit in Western Florida during the COVID-19 pandemic for 21 months. He looked at the average length of stay before and after using the team nursing model and how the geometric mean of the length of stay was different. The study attributed the lower average length of stay to the increased focus of care coordination by the RNs allowing the RNs to implement early interventions to improve the patient flow for testing and procedures. LPNs were able to administer medications and provide direct patient care needs.

Hospital at home programs can help lower morbidity for patients and thereby allow for less patients that must come through the hospital. Johns Hopkins created a hospital-at-home program with savings of 19%-30% when compared with in-hospital care. Atrium Health, which plans to treat 100 patients at home daily by year-end, projects the program will free up 10% of its

inpatient hospital beds by 2025[xliv]. Hospital-at-home programs will increase nurse retention and patient satisfaction by allowing nurses the flexibility of working remotely or in different environments and allowing patients to be treated at home.

Nursing Workforce Composition and Payment Structures

Encouraging hospitals to hire more bachelor-prepared nurses and seek Magnet® status through the American Nurses Credentialing Center (ANCC) Magnet® Program can also advance clinical quality and patient safety in healthcare organizations. Magnet® status encourages hospitals to increase their clinical quality standards and is widely recognized across the United States. The effect of having 10% more Bachelor of Science in Nursing (BSN) Degree nurses decreases the odds of patient deaths and failure-to-rescue in all hospitals, regardless of their work environment, by roughly 4%[xlv]. From 2008 to 2015, the average registered nurse staffing slightly increased, with a greater percentage increase in Magnet® hospitals (6.9%) than non-Magnet® hospitals (4.7%)[xlvi]. This demonstrates nurses are attracted to workplaces that uphold the highest clinical quality standards. Additionally, healthcare organizations that have Magnet® status are more likely to hire more nurses to uphold safe staffing standards. The Joint Commission, the nation's oldest and largest standards-setting and accrediting body in healthcare, currently does not have staffing requirements for accreditation, but some nurses advocate for the Center for Medicaid & Medicare Services (CMS) and The Joint Commission to adopt requirements[xlvii]. Currently, CMS has minimum staffing requirements for RNs at nursing homes, but not in inpatient facilities[xlviii]. Although research has shown Bachelor-prepared nurses have been correlated with a reduction in deaths, there is currently a shortage of BSN nurses.

Many organizations do not account for intensity of care and solely include acuity of care in their payment models and nursing productivity. The rethinking nursing productivity study illustrates the challenges of monitoring productivity and how most healthcare organizations use data to do so[xlix]. EHRs capture information related to the patient's condition, but sometimes staffing changes take place manually. Few organizations can look at real time data regarding clinical quality and staffing. Payment models will need to be examined to successfully allow nursing to play an integral role in clinical quality. The current payment models do not take nursing-specific actions into account.

The American Nurses Foundation Reimagining Nursing (RN) initiative is looking at ways nurses can be better compensated for their expertise and the care they provide. This initiative is also investigating how CMS can reimburse hospitals for nursing services[l]. Their overall goal is to create recommendations for legislative changes. This project, working with the Commission for Nursing Reimbursement, has received a $14 million grant showing how significant the results will be for helping with nursing retention and quality care of patients. Restructuring payment models is expected to increase nurse retention and clinical quality because it will create an emphasis on the value of nursing care and its impact on clinical quality. It would reward physicians and payors for better clinical quality outcomes for patients.

Diversity, Equity, and Inclusion (DEI), Work Schedule Flexibility, and addressing the stress injury continuum are additional priority recommendations to improve nurse satisfaction and retention[li]. Increasing diversity in nursing leadership and the nursing workforce is critical to addressing social determinants of health and health equity, which ultimately can improve patient

outcomes. Building flexible work schedules with staff that are cross-trained supports staff well-being and incorporates time for professional development and leadership engagement. Addressing burnout, moral distress, and compassion fatigue can help overcome barriers of nurse retention.

Peter Beurhaus, PhD, RN, advocates for nurses to take more leadership roles with his research for the future of nursing. Dr. Beurhaus is a Professor of Nursing and the Director of the Center for Interdisciplinary Health Workforce Studies at the College of Nursing, Montana State University[lii]. He also serves as a member of the National Academy of Sciences National Academy of Medicine Committee on the Future of Nursing for 2020-2030. He states, "Nurses have to take ownership on this, our leadership has to, professional associations, educators, certainly the media, social media, and unions. We need to grow the workforce, so we've got to rebalance current messages"[liii]. Beurhaus said hospitals and nurses should reset their economic relationship by having nurses embrace hospitals' transition to value-based payment. Hospitals should similarly recognize that the economic interests of healthcare organizations are increasingly tied to a well-prepared and value-informed nursing workforce.

Technology

It is becoming clear technology will need to be a solution; however, technology cannot add to the nurses' workloads and technology cannot replace nurses either. One study showed nurses require and have both soft skills and hard skills[liv]. Soft skills are defined as abilities not acquired through formal education and are difficult to quantify or measure. They are needed for person-oriented work tasks. Hard skills, on the other hand, are technical, concrete, and measurable abilities. Due to the soft skills, artificial intelligence (AI) cannot take the place of nurses. There are many challenges and solutions to using technology. The National Nurses United Union is against technology because of fears and misunderstandings. They claim AI technology degrades and undermines patient safety. 69% of nurses in a study said their assessments do not match a computer-generated acuity measurement tool, because it does not account for the emotional, psycho-social, and educational needs of the patient and their families[lv]. Other challenges include biases in data sets, techniques that reduce nursing involvement in the development of technological systems, nurses lacking technical skills, negative attitudes towards telemedicine, weakness in documentation quality for EHRs, over alerting clinicians for clinical decision support systems, and ethics and lack of accountability for decision systems using AI or Big Data[lvi].

However, there are also identified benefits of improving technology to help alleviate nurses' workload. These include the use of technology for decision support, the use of robots to support caregivers, and clinical decision support systems to detect information and trigger appropriate actions. EHRs are superior to paper-based records and precision healthcare shapes treatments to enable nurses to deliver personalized care. McKinsey estimates technology can free up nurse time through care-model changes and innovation[lvii]. In a typical shift, 20% of net time reduction can be achieved through tech enablement.

Freeing up time for nurses can allow them to be involved in professional growth and training other nurses and peers[lviii], also allowing them to have more time with their patients. With

more time, nurses can participate in shared governance committees that are designed to allow nurses to be at the forefront of policy change decisions. Some of the projects spearheaded by various shared governance committees at hospitals and healthcare systems include creating better workflows and increasing clinical quality and patient satisfaction. Hospitals with greater engagement of shared governance were significantly less likely to report unfavorable job outcomes and high levels of engagement in shared governance were associated with higher Hospital Consumer Assessment of Healthcare Providers (HCAPHS) scores[lix]. HCAPHS scores provide feedback from patients about the healthcare they received while being treated as a patient at the hospital. One great example of healthcare organizations utilizing nurses in their major decisions and strategy involves MD Anderson, a Houston-based healthcare organization. MD Anderson brought 10 nurses to the Health Information and Management System Society (HIMSS) annual conference to understand different technological tools and see if any of them can be implemented[lx]. MD Anderson's nursing informatics officer Lavonia Thomas describes the importance of getting feedback from nurses and how it helps nurses to feel more engaged[lxi]. The organization has a robust informatics program supported by nurses along with at least two nurses in each unit that serve as subject matter experts (SME). These SMEs attend monthly meetings to give their feedback about the proposed technology changes and provide elbow-to-elbow support during implementation. A greater emphasis on technology with nurses leading the change would increase patient safety and clinical quality, increase nurse retention and patient satisfaction, and improve healthcare delivery.

Data Transparency to Improve Patient Outcomes and Clinical Quality

With technology, the use of data and data transparency to improve patient outcomes and clinical quality is critical. Leapfrog is a nonprofit organization that seeks to create positive change in hospitals by advocating for transparency of data. They collect, analyze, and disseminate data to inform value-based purchasing and improve decision making. The Leapfrog survey includes a section about "Preventing and Responding to Patient Harm". This section asks hospitals to provide information on four nursing workforce measures endorsed by the National Quality Forum:

1) Total nursing care hours per patient day
2) RN hours per patient day
3) Nursing skill mix
4) Percentage of BSN prepared nurses

Leapfrog scores and reports hospital performance. In 2024, 3,000 hospitals participated in the Leapfrog Group Hospital Safety Grade report[lxii]. If a hospital achieves the nursing workforce standard, they have total nursing care hours per patient day at the 50th percentile, have RN hours per patient day at the national 50th percentile, have a nursing skill mix at the 50th percentile, and have at least 80% of their RNs with a BSN or higher[lxiii]. In Spring 2022, 22 hospitals achieved consecutive 'A's in every cycle since 2012[lxiv]. In Spring 2024, Utah was the highest rank state with 57.7% of hospitals with an 'A'[lxv]. California ranked number 6. Many organizations strive to

achieve an "A" on the Leapfrog system. Leapfrog reports may motivate healthcare organizations to focus on patient outcomes which will help increase patient safety and clinical quality.

Next Steps for Healthcare Organizations

Considering the vast array of innovative solutions to address nursing ratios, healthcare organizations should examine their current care delivery models, technology use, and work environments to decide which tools will work best for them. If a healthcare organization feels that mandated ratios through legislation would be best and they are not in a state that currently has mandates, they will need to work with legislators to lobby to create these bills and get them passed through the state government. If they are considering an alternative solution, they will need to assess the current state of their organization, the future state, and how to bridge that gap. Every organization has different needs, and therefore healthcare organizations need to identify their own personalized solutions to advance patient safety.

The Need for a Multidisciplinary Approach

To effectively address the critical challenge of nurse staffing shortages, every healthcare organization must prioritize approaches that place nurses at the center of decision-making. Senior nursing leaders, clinicians, and healthcare administrators must collaborate with legislators, payers, and technology companies to design and implement innovative solutions. While legislation can help, a broader set of strategies is needed to enhance clinical quality.

Healthcare systems must explore new care delivery models that allow nurses to work to the full extent of their licensure, embrace technology, rethink payment models, and identify quality improvement initiatives that do not add to financial strain. By empowering nurses to work with executive teams on implementing creative solutions, we can build a healthcare system that improves clinical outcomes, reduces healthcare costs, and fosters teamwork from all stakeholders in the health ecosystem focused on creating healthy work environments.

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