# Evidence-based safe nurse staffing

Nursing is a core service in all healthcare. Safe nurse staffing means that an appropriate number of nurses is available at all times across the continuum of care, with a suitable mix of education, skills and experience to ensure that patient care needs are met and that the working environment and conditions support staff to deliver quality care. Safe nurse staffing is a critical issue for patient safety and the quality of care in hospitals, community and all settings in which care is provided. Inadequate or insufficient nurse staffing levels increase the risk of care being compromised, adverse events for patients, inferior clinical outcomes, in-patient death in hospitals and poorer patient experience of care.[1-7] Having insufficient or inappropriate nursing staff to meet patient needs also results in unsustainable workloads and has a negative impact on the health and wellbeing of staff.[4,5,8] Research suggests that investing in safe, effective and needs-based nurse staffing levels can be cost effective, promoting improvement of and preventing deterioration in patients' health thereby reducing the duration and intensity of healthcare interventions.[9,10] Ongoing evidence continues to highlight the importance of safe nurse staffing in relation to patient safety in all healthcare sectors.

There are a number of elements to achieving evidence based safe nurse staffing:

- real-time patient needs assessment
- local assessment of nurse staffing requirements to provide a service
- nursing and interdisciplinary care delivery models that enable nurses to work to their optimal scope of practice
- good human resource practices to recruit and retain nurses
- healthy work environments and occupational health and safety policies and services that support high quality professional practice
- workforce planning systems to ensure that the supply of staff meets patient needs
- tools to support workload measurement and its management
- rostering to ensure scheduling meets anticipated fluctuations in workload
- metrics to assess the impact of nurse staffing on patient care and policies that guide and support best practice across all of these.[9,11,12]

This requires having an appropriate base staffing that includes a range of competencies which can be deployed to meet changing and fluctuating patient acuity in real-time. Workforce planning systems that align patients' and communities' needs with nursing supply should be in place.

Determining optimal staffing requirements is a complex issue. Currently, a number of workforce planning and modelling tools exist that seek to match patient need and service requirements with required nursing numbers and competencies. Robust tools require high quality patient and staffing data and must be used in conjunction with professional judgement.[13] Nursing leadership and engagement and the necessary autonomy in

determining the budget, design and operation of staffing models and tools is crucial. Nurse Executives have been identified as fulfilling a vital role at Board level in ensuring that there is a professional lead with visible authority.[9]

Some healthcare organisations have implemented mandatory safe staffing levels and evidence has demonstrated both improved patient outcomes (lower mortality) and nurse outcomes (retention of nurses, nurse satisfaction, reduced workloads).[14] Regardless of which tools or systems are used to assess and plan nurse staffing levels, benchmarking with comparable clinical areas and against recognised best practice can provide a useful reference point. An agreed real-time dataset with meaningful and consistent metrics should exist so that staffing levels can be increased, when necessary, to account for normal staffing absences. There should also be regular processes for review and evaluation and clear reporting mechanisms to organisations' executive leadership teams to ensure funding is sufficient to maintain patient safety.

At all times, nursing leaders, through the exercise of their professional judgement, should be able to control and adjust nurse staffing levels to ensure patient safety. If nurse staffing is inadequate, then adjustments should be made to the systems controlling the flow or admission of patients to ensure safety standards are protected.

Regardless of the healthcare environments, valid and reliable planning tools, evidence-based nurse staffing and robust review processes are needed to enable effective nursing care to be provided safely.

There is substantial and growing evidence that demonstrates the relationship between nurse staffing and patient outcomes.[1-7] These include reduced adverse events such as the incidence of pressure ulcers, urinary tract infections, malnutrition and deterioration in the ability to perform activities of daily living. Furthermore, reduction in hospital readmissions, a decreased risk of nosocomial complications and hospital length of stay, as well as increased patient satisfaction have been observed.[2,15,16] An insufficient number of nurses also results in both a "failure to rescue", whereby the deteriorating patient is identified late, and missed nursing care, which results in poorer patient outcomes and increased morbidity and mortality.[17-19]

There are direct benefits from having higher Registered Nurse (RN) levels: an increase of one RN per 10 beds has been associated with a 11-28% reduction in death 30 days following a stroke and an 8-12% reduction one year following a stroke.[20] Evidence demonstrates that hospitals with higher proportions of baccalaureate prepared RNs have better patient outcomes and lower mortality rates.[7] The critical thinking abilities of the RN are related to improved patient outcomes and reduced mortality. Substituting with higher numbers of less highly qualified/educated nursing and support staff (licensed practical nurses and unlicensed healthcare support workers) is associated with higher hospital mortality rates, lower cost-effectiveness, an increase in the occurrence of adverse events such as medication errors and falls, and poorer patient outcomes.[6,7]

In relation to nurses' wellbeing, inadequate staffing levels can lead to lower job satisfaction, increased levels of stress, staff burnout, a higher inclination to leave and increased staff

2

turnover. [4-6,8] This also has resource implications which a number of studies have shown are very significant.[21, 22, 23]

Nursing shortages, financial cutbacks in healthcare, inequitable distribution of nurses globally, and the migration of nurses from low-income to high-income countries have caused some organisations to explore alternative staffing roles and skill mix. The substitution of healthcare support workers for RNs and the development of new non-RN roles have been implemented in some countries as a possible solution to address a shortage of RNs and to reduce the wage bill.  On the basis of current evidence, these approaches need to be treated with caution as the evidence suggests that they may worsen patient outcomes and may not be cost-effective.[24] In contrast, the evidence in relation to RNs clearly demonstrates that they save lives, reduce costs and improve systems outcomes.

## ICN Position & Recommendations

As the global voice of nursing and recognising that safe nurse staffing is crucial to maintaining both the quality and safety of patient care, ICN affirms the following key principles.

- Decisions concerning nurse staffing must respond to clients' healthcare needs and enable the delivery of safe, competent, ethical, quality, evidence-informed care.
- Robust, valid, evidence-based human resource planning systems and policies must be in place to match nursing supply to patient and population health needs.
- Nurse staffing decisions must be evidence-based and supported by information systems based on reliable real-time data, agreed metrics, benchmarking and best practice.
- Timely adjustments to nurse staffing according to changes in patients' healthcare needs are essential.
- RNs must not be substituted with less qualified cadres of workers.
- Safety thresholds must be identified for nurse staffing in different settings.
- Regular reviews of staffing must take place and be informed by up-to-date evidence and best practice on the relationship between RNs and the work environment inputs and patient, nurse, organisational and system outcomes.
- The primacy of RN professional judgement must be respected in determining the required safe number and ratio of staffing.
- Direct care nursing staff and nursing management should be involved in all stages of the design and operation of nurse staffing systems and in policy and decision making in management of human resources.
- Organisations should have a nurse at executive level to ensure the delivery of safe, effective, high quality, ethical and efficient healthcare. Nurses at this level should have authority over nursing budgets to safeguard safe staffing.
- Organisations representing nurses should be central to developing, implementing and evaluating safe nurse staffing policy and systems.
- Support for continued research examining patient safety and quality, staff wellbeing and economic benefits is essential.

**ICN encourages national nurses' associations (NNAs), in collaboration with their respective government, to:**

- Promote awareness and disseminate information to improve public understanding of the importance of safe staffing and the impact of the RN on patient, organisational and system outcomes.
- Provide advice and guidance, and support the establishment and implementation of safe nurse staffing systems.
- Advocate for sufficient healthcare funding to deliver needs-based safe nurse staffing.
- Lobby governments to establish effective human resources planning systems to ensure an adequate supply of healthcare professionals to meet patient and population needs.
- Lobby and advocate for effective staffing systems based on both patient safety and the health and wellbeing of staff.
- Monitor and hold to account both governments and healthcare institutions for fulfilling their responsibilities to ensure patient safety through safe nurse staffing.
- Work with their members to provide evidence and feedback on the operation of staffing systems.
- Partner with patient-led organisations in order to raise public awareness of the impact that safe nurse staffing has on patients, families and communities.
- Support those who raise safety concerns.
- Cease the creation of substitute roles for Registered Nurses.
- Promote nurse staffing research that includes economic analysis.

**ICN calls on healthcare employers, to:**

- Have evidence-based systems in place to ensure safe nurse staffing is based on real-time patient information.
- Have nurse managers central to the design and operation of staffing systems and with the authority to adjust staffing levels in response to changing patient needs based on evidence and professional judgement.
- Ensure there is a Chief Nursing Officer at the executive level who regularly receives updates, evaluates and reviews staffing systems and levels.
- Have best practice (evidence informed) human resource and occupational health and safety systems and policies in place.
- Create positive practice environments with an adequate number of staff, manageable workloads, managerial support, high quality leadership and the ability of nurses to work at their full scope of practice.
- Create mechanisms to support consultation, negotiation and shared decision making between staff and their representatives. Organisation leaders should promote and model these values.
- Establish transparent systems for reporting staffing levels and patient outcomes internally and to Executive Boards and externally to funders and the public.
- Ensure systems are in place to alter or stop patient flows and admissions to match the available nursing supply. Nurse leadership must have the authority to stop admissions

when unsafe staffing situations arise and to authorise, at short notice, additional staff when patient safety is at risk.

- Implement policies and processes for staffing concerns to be raised and fully investigated without detriment or fear of retribution for the person or persons raising a concern.
- Regularly review staffing levels and mix to reflect changes in patient and populations needs and demands.

**ICN calls on individual nurses in their role as clinicians, educators, researchers, policy influencers, or executives, to**:

- Formally report unsafe nurse staffing situations.
- Recognise that nurse staffing affects patient, nurse, organisational and system outcomes.
- Participate in the development of evidence-based human resources planning tools and nurse staffing systems, policies and processes.
- Use outcome measurement data in a rigorous manner to inform decision-making regarding safe and effective staffing practices.
- Conduct nurse staffing research, including economic analysis.

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6

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