Interim Report and Recommendations by the Taskforce on Staffing and Skill Mix for Nursing on a Framework for Safe Nurse Staffing and Skill Mix in General and Specialist Medical and Surgical Care Settings in Adult Hospitals in Ireland

February 2016
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Foreword by the Minister for Health

I am pleased to publish this Interim Report of the Taskforce on Staffing and Skill Mix for Nursing. Nurses are a critical part of the health service and they make a vital contribution. The framework set out in this report is underpinned by a broad evidence base. It was developed through bottom-up and top-down consultation with nurses throughout the health service, as well as many key stakeholders. However, it’s equally important that we test the recommendations, which is why I am very happy to be in a position to fund a pilot of the framework which will take in a range of acute hospitals across the country.

The contribution of the nursing team to a safe health service is critical, and therefore having the right nurse in the right place at the right time delivering the right care is something that requires careful consideration and consistency in approach. The framework is a result of that careful consideration and it includes the totality of the nursing team and a firm focus on patient outcomes.

Now is the right time to push on with the pilot as we have begun the process of stabilising our nursing and midwifery resource. It demonstrates a genuine commitment to building a service where patient needs are centre stage. This work will contribute to a more stable nursing workforce where the measurement of patient outcomes and individual patient needs are taken into account, ensuring that patient safety is to the fore when decisions on nurse staffing are being taken.

I would like to thank all those involved in the development of this Interim Report. In particular I would like to acknowledge the work of the members of the Taskforce Steering Group in their approach to the development and testing of the Framework. The next step is commence the pilot and then to build the results of that pilot into a Final Report and Recommendations from the Taskforce Steering Group. The partnership approach, with its top to bottom consultation processes, will help to ensure a very positive outcome, both for patients and nurses alike.

Leo Varadkar TD
Minister for Health
Foreword by the Chair of the Steering Group

I am delighted to present this Interim Report on behalf of the Taskforce on Nurse Staffing and Skill Mix. The timing of this work is critical. Arising from our economic circumstances over the last number years, Ireland similar to other countries has made tough yet necessary decisions that have tested the resilience of all public services including health. Nonetheless these experiences have taught us that we can no longer rely on the systems of the past to solve the problems of today and the future. Each challenge brings with it the opportunity to think afresh.

This framework is the first step on a journey towards radically changing how we approach the age old problem of staffing our hospitals. It places the needs of the patient centre stage and recognises the relationship between nurse staffing arrangements and patient outcomes. Research and health inquiry reports provide valuable lessons. They point to the equal importance and impact of ensuring the right mix of skills and knowledge, strong clinical leadership and a healthy culture within a hospital.

This new approach is underpinned by evidence based on assessment of individual patient need, monitoring patient outcomes, measuring staff experience and ward climate, as well as assessing the required nursing hours per patient day. The staffing infrastructure in a hospital is everybody’s concern. It is for this reason the decision making framework sets out a whole hospital approach designed to ensure ward to board and board to ward accountability.

The most exciting part of policy making is seeing that policy take life in practice. Our next steps are the most important, to test the capability of this framework to deliver on its intended outcomes.

I would particularly like to thank all nurses who gave so generously and enthusiastically of their time during the consultation processes. The richness of this engagement is woven through the framework. A special word of thanks to Dr Philippa Ryan Withero, Deputy Chief Nursing Officer, whose exceptional commitment drove the delivery of the framework.

In conclusion, as the first publication from the Office of the Chief Nurse, I am particularly pleased that this delivers on a core strategic objective of our work; to develop national policy that has a direct impact at the ‘point where the service touches the patient’.

Dr Siobhan O’Halloran
Chief Nursing Officer
Chair of the Taskforce on Staffing and Skill Mix for Nursing
Executive Summary

In April 2014, the then Minister for Health Dr James Reilly TD, approved the establishment of a Taskforce on Staffing and Skill Mix for Nursing. The Taskforce began its work in September 2014, and has continued to be supported by the current Minister for Health, Leo Varadkar. The core objective of the taskforce is the development of a framework to support the determination of staffing and skill mix requirements for the nursing workforce (whereby nursing refers to the nursing team including both the nurse and healthcare assistant role) in a range of major specialities. The stimulus to establish the taskforce included the recommendations from; 1) an increasing number of high profile health inquiry reports such as the Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry (2013) and the HIQA Tallaght Hospital Report (2012b), and; 2) the increasing body of research evidence linking components of the nursing resource to patient outcomes. Simultaneously, the Irish health service is undergoing some of the most radical reforms in its history, and collectively these changes and evidence acted as the catalyst to the establishment of the taskforce.

This interim report provides an overview of the outcomes from Phase I of the Taskforce which focused on the development of a nurse staffing and skill mix framework related to acute general and specialist medical and surgical in-patient care settings in adult hospitals.

The objectives of the Taskforce were to;

- develop a staffing (nurse and healthcare assistant) and skill mix ranges framework related to general and specialist medical and surgical care settings in acute adult hospitals based on best available international evidence;
- set out clearly the assumptions upon which the staffing and skill mix ranges are determined;
- make recommendations around implementation and monitoring of the framework including the necessary education, training, and guidance required, and;
- present a written report to the Minister for Health.
On this basis this interim report:

- provides an overview of the approaches taken to develop the framework, including key findings and summary recommendations from evidence and engagement; (Section 1; Chapter 2);
- outlines the proposed Framework components, inclusive of a step-by-step guide to calculate the ward nurse staffing establishment and; (Section 2 Chapter 3);
- sets out the proposed next steps and key actions for implementation and monitoring; (Section 2 Chapter 4)

A summary of the framework key recommendations are provided overleaf.
### Summary of the National Overarching Framework Recommendations

<table>
<thead>
<tr>
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<th>Recommendation</th>
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<tbody>
<tr>
<td>1</td>
<td>It is recommended that a national review of the education, role and functions of the nursing healthcare support worker roles, such as the Healthcare Assistant and Multi-task attendant is undertaken; and that the findings of this review will inform alterations to the nursing/healthcare assistant grade mix. The HSE Leadership Education and Development Team is currently undertaking a scoping exercise in relation to this recommendation.</td>
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<tr>
<td>2</td>
<td>It is recommended that further quality research in an Irish context is undertaken, to develop Irish data on the relationship between nurse staffing, ward-level factors and patient outcomes.</td>
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### Summary of the Local and Regional Framework Recommendations

<table>
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<tr>
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<th>Recommendation</th>
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<tbody>
<tr>
<td>1</td>
<td>It is recommended that a systematic, triangulated evidence based approach to determine nurse staffing and skill mix requirements is applied consistently at ward, hospital and hospital group level.</td>
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<tr>
<td>2</td>
<td>It is recommended that the choice of systematic evidence based methods takes account of the multiple factors outlined in the framework.</td>
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<td>3</td>
<td>It is recommended that effective recruitment processes are in place to ensure timely recruitment to avoid gaps in staff replacement.</td>
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<tr>
<td>4</td>
<td>It is recommended, that subject to a review of the education, role and function of nursing healthcare support worker roles, the nurse/healthcare assistant grade mix is 80%/20%, once a safe nurse staffing level exists.</td>
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<tr>
<td>5</td>
<td>It is recommended that a patient safety <strong>Tipping Point</strong> at ward level be monitored and determined locally as outlined in the framework.</td>
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<tr>
<td>6</td>
<td>It is recommended that the elements influencing a positive organisational culture and ward climate form an integral part of the approach to safe nurse staffing decisions.</td>
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<tr>
<td>7</td>
<td>It is recommended that 100% of the CNM2 role and function is in a supervisory capacity. It is recommended that organisations invest in appropriate resource of CNM1s to support the role and function of the CNM2 and provide effective succession planning.</td>
</tr>
<tr>
<td>8</td>
<td>It is recommended that ward and organisation wide mechanisms are put in place, to measure and monitor at a minimum nurse sensitive outcome KPIs on patient falls, pressure ulcers, staff and patient experience.</td>
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<tr>
<td>9</td>
<td>It is recommended that a day to day process to assess, escalate and respond to missed care events (referred to as “<strong>Safety CLUEs</strong>”) is put in place at ward and organisational level to indicate the adequacy of the nurse staffing resource.</td>
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<tr>
<td>10</td>
<td>It is recommended that the process of setting and maintaining safe nurse staffing levels is collaborative and involves Clinical Nurse Managers, Senior Nurse Managers and Directors of Nursing with support from Human Resources Management, Quality and Safety, and Finance.</td>
</tr>
<tr>
<td>11</td>
<td>It is recommended that the Director/Group Director of Nursing determines and brings forward evidence based recommendations on nurse staffing and skill mix requirements to the Senior Executive Management Team, and Board of Management at hospital and hospital group level.</td>
</tr>
<tr>
<td>12</td>
<td>It is recommended that nursing workforce planning governance arrangements to monitor and review nurse staffing and skill mix and their impact on patient outcomes are put in place.</td>
</tr>
<tr>
<td>13</td>
<td>It is recommended that the wider macro level factors (PESTLE) with potential to impact on nurse staffing and skill mix decisions should be considered annually at a minimum, by the Senior Hospital Management Teams and Hospital Boards of Management.</td>
</tr>
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Section 1

This section outlines the background and the approaches taken to provide the evidence and engagement to inform the development of the Framework.

Chapter 1 presents the background, context and objectives of the Taskforce on Staffing and Skill Mix for Nursing.

Chapter 2 provides a summary overview of the approaches taken to develop the framework, including key findings and summary recommendations from evidence reviews and stakeholder engagement.
1 Introduction and Background
Chapter 1

1.1 Introduction

In April 2014, the then Minister for Health Dr James Reilly approved the establishment of a Taskforce on Staffing and Skill Mix for Nursing. The Taskforce began its work in September 2014, and has continued to be supported by the current Minister for Health, Leo Varadkar. The core objective of the taskforce is the development of a framework to support the determination of nurse staffing and skill mix requirements for the nursing workforce (whereby nurse staffing refers to the nursing care team that includes the registered nurse and healthcare assistant roles) in a range of major specialities. The stimulus to establish the taskforce included recommendations from; 1) an increasing number of high profile health inquiry reports such as the Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry (2013) and the HIQA Tallaght Hospital Report (2012b), and; 2) the increasing body of research evidence linking components of the nursing resource to patient outcomes.

1.2 Context

The nursing and midwifery workforce is critical to the delivery of safe effective patient care. Within the context of our changing healthcare services, the Programme for Government (2011-2016) outlines commitments for radical reform and restructuring of the health services in Ireland. These include: the planned shift from acute hospital care to primary care; establishment of clinical care programmes; introduction of free GP care; establishment of hospital trusts in addition to financial reform. There is a clear trend towards greater interdisciplinary integrated care underpinning these changes. One of the key priorities in these reforms is the re-organisation of the acute hospital services, which will witness the continued development and progression of Hospital Groups as outlined in the report The Establishment of Hospital Groups as a Transition to Independent Hospital Trusts (2013).
There are forty eight acute hospitals arranged into seven Hospital Groups providing the broad range of acute services (in-patient, out-patient, emergency and diagnostics) for a population of almost 4.6m. In the HSE’s National Service Plan (2015) an accountability framework is set out as part of the overall governance arrangements to support the implementation of the new health service structures, including Hospital Groups. These reforms collectively present diverse challenges and indeed opportunities for the nurse staffing workforce and provide the context for this report.

The subject of nurse staffing has been a topic of discussion for a number of years in Ireland, most notably since the publication of *The Report of the Commission on Nursing* (1998). Internationally the publication of research and public enquiries have clearly demonstrated the relationship between safe nurse staffing and patient experience and outcomes (Ball and Catton 2011; Francis Report 2013; Keogh Review 2013; Cavendish Review 2013; Berwick Report; Aiken et al 2014). Similarly from a regulatory perspective, the *National Standards for Safer Better Healthcare* (HIQA 2012a) include Standard 6 – Workforce, which outlines the necessity to determine workforce requirements to meet sustainable high quality safe care and support.
1.3 Objectives

This interim report provides an overview of the current outcomes from Phase I of the Taskforce which focused on the development of a nurse staffing and skill mix framework for acute general and specialist medical and surgical in-patient care settings in adult hospitals.

The objectives of the Taskforce were to:

- develop a staffing (registered nurse and healthcare assistant) and skill mix ranges framework related to general and specialist medical and surgical care settings in acute adult hospitals based on best available international evidence;
- set out clearly the assumptions upon which the staffing and skill mix ranges are determined;
- make recommendations around implementation and monitoring of the framework including the necessary education, training, and guidance required, and;
- present a written report to the Minister for Health.

On this basis the interim report:

- provides an overview of the approaches taken to develop the framework, including key findings and summary recommendations from evidence and engagement; (Section 1; Chapter 2)
- outlines the proposed Framework components, inclusive of a step-by-step guide to calculate the ward staffing establishment and; (Section 2 Chapter 3)
- sets out the proposed next steps via interim conclusions, recommendations and key actions for implementation and monitoring; (Section 2 Chapter 4)
1.4 Purpose of the Framework

Central to any approach to determine optimum nurse staffing requirements is the necessity to measure their effectiveness and impact on patient care. To achieve this, systematic approaches need to be applied consistently to produce comprehensive data capable of informing the most appropriate decisions. The Report of the Irish RN4CAST Study (Scott et al. 2013) pointed to this lack of information on nursing staff profiles and the largely historically determined staffing complement that was not necessarily matched to patient acuity or dependency levels in medical and surgical in-patient wards across the acute hospital service. This presents significant challenges, not only to determining the most appropriate nurse staffing level and skill mix at local level, but equally to informing the most appropriate decisions in regard to nurse staffing workforce projections in the wider health service as a whole. This lack of information potentially impacts on efforts to determine the most appropriate deployment of the nurse staffing resource at hospital level along with the identification of appropriate skill mix at ward level (Scott et al. 2013).

Internationally, there is a plethora of nurse staffing decision support tools available to support nurse staffing decisions. The challenge with a number of these tools is their variability in terms of validation (Griffiths et al. 2014). However, there is evidence of a number of variables used within these tools that may affect staffing requirements associated with outcomes such as: patient turnover, dependency/acuity and ward case mix. The recently published *NICE Safe Staffing Guideline* (2014) contains recommendations that identify the organisational and managerial factors required to support safe staffing for nursing, along with indicators to measure the safety of the nursing care provided. NICE now proposes to endorse nurse staffing decision support tools particularly where these tools are being used widely across the NHS.
To date there are no nationally agreed or endorsed decision support tools recommended for use in Ireland. The evidence from the Report of the Irish RN4CAST (Scott et al, 2013) provides key insights on the lack of decision support tools or comprehensive data gathering to support decisions in either a systematic or consistent manner. Thus, the context in which this framework has been developed is one where there is limited experience in the Irish healthcare service of applying systematic approaches to determining nurse staffing and skill mix. Therefore this framework is the first of its kind nationally and will provide the primary foundation upon which to begin applying a systematic approach and furthermore to initiate a process of further on-going development.

One of the primary purposes of this framework is to support the positive impact of safe nurse staffing on patient outcomes through the use of systematic approaches to determine optimum nurse staffing and skill mix requirements. The framework is underpinned by key assumptions outlining the necessary elements for inclusion in safe nurse staffing and skill mix decisions, whilst recognising that the nursing care team is part of the wider healthcare team. It also sets out the essential organisational responsibilities to ensure nurse staffing workforce governance to oversee the implementation and monitoring of nurse staffing and skill mix decisions and, in particular, their impact on patient outcomes. Furthermore, the framework outlines the wider consideration of external influencing factors potentially impacting on the nursing workforce at organisational level as a whole. Collectively integrating all of these elements, this framework sets out the essential ingredients to ensure consistent informed decision-making using a sound rational base. Critical to the success of the framework is the assessment of the impact on patient care, appropriately monitored and governed at organisational level.

The development of this framework is seen as the first step in a programme of work to develop, strengthen and advance systematic and comprehensive approaches to the determination of safe nurse staffing and skill mix to optimise positive patient outcomes arising from investment in the nurse staffing resource.
2 Approach to the development of the Framework
Chapter 2

2.1 Introduction

The first critical step on the road to the development of the framework was the establishment of a Taskforce Steering Group with representation from key groups, both national and international. The membership of the Taskforce Steering Group reflected the focus of Phase I (i.e. general and specialist medical and surgical adult in-patient wards in acute hospitals) and is outlined in detail in Appendix 1. To inform the development of the framework, the Steering Group held 20 meetings, in addition to engaging in a variety of activities ranging from consultation with key stakeholders, presentations from national and international experts to commissioned pieces of research and evidence. This evidence, gathered from multiple sources was used to assure the most informed, applicable, relevant and reliable framework.

Central to the approach however, was consultation with a wide range of key stakeholders. The overall aim of undertaking an approach which included both research and evaluative evidence coupled with stakeholder engagement was to provide a comprehensive assessment underpinned both by theory and practice perspectives to inform the development of the framework. Figure 1.0 outlines the approach to evidence and engagement.

Figure 1.0 Approach to evidence and engagement
2.2 Literature Review

A systematic literature review examining relevant national and international literature, research evidence, systematic reviews and published reports was commissioned to inform the development of the framework and its recommendations. Using a modified PRISMA design, 71 peer reviewed papers relating to safe nurse staffing and patient outcomes were selected for inclusion in the final report. The results of the studies were grouped by 14 nursing variable topics.

The key outcomes of the review indicated that nursing variables were heterogeneously associated with patient safety. In other words different nursing variables were associated with different effects on differing indicators of patient safety, so no single nursing factor should necessarily be considered over others. Instead, each nursing factor and how it impacts different patient outcomes requires individual consideration. The findings however are to be interpreted with some caution due to limitations relating to an inability to establish cause and effect from most studies (as they used cross-sectional designs), variable study quality, and that the largely US-based international evidence may not be generalizable to an Irish context.

The factors outlined are summarised as;

- **Staffing numbers**: greater nurse staffing levels (all nursing staff) predict lower levels of inpatient mortality, rates of failure to rescue, and a shorter length of stay.

- **Hours**: a greater number of nursing hours is generally associated with lower inpatient mortality. Similarly there is evidence that a greater number of hours leads to a lower incidence of failure to rescue and missed care.

- **Shift characteristics**: the more adverse a shift was perceived to be (such as involving longer working hours) the greater incidence of patient mortality, pneumonia and sepsis. However the evidence about how this relates to missed care and other infections is unclear.
• **Turnover:** the evidence linking staff turnover to patient outcomes is mixed at best.

• **Absenteeism:** greater rates of hospital-acquired infections and missed care are associated with higher rates of registered nurses missing shifts, but no association was found for medication errors or falls.

• **Education:** the level of education of registered nurses was found to be linked to mortality and failure to rescue. The quality of registered nurse education was also found to be important for predicting patient mortality and failure to rescue rates, indicating that the quality of education may require consideration.

• **Experience:** There does not appear to be a strong link between registered nurse length of experience and the incidence of adverse patient outcomes. In particular, the evidence is unclear about associations between experience and falls, hospital acquired infections and missed care, with no association found between experience and medication errors. There does appear to be some evidence of an association between experience and reduced length of stay however these results should be interpreted with caution as the study explored experience as part of a ‘nurse value added’ composite variable, where other factors could have been at play.

• **Skill mix:** The evidence surrounding skill mix and patient outcomes is variable. A number of studies have reported an association between a nursing skill mix that has a higher proportion of registered nurses and a reduction in adverse patient outcomes whereas other studies have identified no association between skill mix and patient outcomes.

• **Patient-Nurse ratio:** A greater number of patients per registered nurse is predictive of greater rates of failure to rescue and complications, and there is some evidence to suggest that this is also associated with increased patient mortality and missed care.

• **Staffing adequacy:** Poorer perceptions of staffing adequacy are linked to greater patient mortality and the incidence of falls, pressure ulcers, infections, medication errors and missed care.

• **Demands on nurses:** Increased perceived psychological strain on nurses is associated with greater patient mortality, falls, medication errors and deep vein thrombosis, but not infections.
Approach to Framework Development

- **Training**: Given reported improvements in the incidence levels of medication errors, pressure ulcers and falls, it may be worth considering whether elements of the Transforming Care at the Bedside and Northern Hospital Pressure Ulcer Prevention Plan can be implemented in an Irish context.

- **Environment**: Better overall ratings of the practice environment are linked to a lower incidence of failure to rescue and complications. Looking at different aspects of the care environment, better quality of care is linked to fewer falls, infections and medication errors and better teamwork; nurse involvement in outcome evaluation and perceptions of safety are associated with fewer pressure ulcers, and quality of care is linked to falls, infections and medication errors.

### 2.2.1 Summary recommendations from the literature review

Four key recommendations were made by the research team, to be deliberated by the Taskforce. Three recommendations were in the context of the development of the framework, with a final macro recommendation related to the field of nurse staffing evidence in an Irish context. These are outlined in the box below.

1. **Managing need through monitoring**: the collection and regular evaluation of Irish data through examining notable nurse variables such as nurse staffing numbers, and skill mixing, alongside the incidence of four key patient safety indicators: falls, pressure ulcers, medication errors and missed care. Such evaluations should also take into account ward case mix, acuity, dependency, patient turnover, and ward layout and size.

2. **Safe patient-nurse ratios**: One area where NICE guidelines are specific relates to avoiding unsafe patient to nurse ratios, where the guidelines advise of a known risk of patient harm associated with one nurse caring for more than eight patients on day shift. This is echoed in the results of the review, where nurses that managed four or fewer patients compared to those that managed eight or more were associated with better patient outcomes.

3. **Training**: the Transforming Care at the Bedside and Northern Hospital Pressure Ulcer Prevention Plan should be considered as to whether elements of these can be adopted in an Irish setting, as these were found to be associated with a reduction in medication errors, pressure ulcers and falls.

4. **Further quality research in an Irish context**: further collaborative endeavours between policy makers and researchers, equally driving a need for further high quality research involving an Irish population and studied longitudinally.

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1 Transforming Care at the Bedside is a quality initiative by the Robert Wood Johnson Foundation and the Institute for Healthcare Improvement designed to address serious problems in healthcare quality. [www.ihi.org/IHI/Programs/TransformingCareAtTheBedside/](http://www.ihi.org/IHI/Programs/TransformingCareAtTheBedside/)
2.3 National and International Consultation

The work of the Taskforce in developing the framework was underpinned by a strong focus on broad engagement both nationally and internationally. This approach saw engagement across all levels of service, cascading from front line staff to senior hospital managers to senior HSE management. National consultation took various forms including regional meetings, a web based survey and regular newsletters as an update on the work of the Taskforce. This provided an opportunity for significant engagement with front line nurses, nurse managers, Directors of Nursing, nurse academics, practice development, both locally and regionally, and managers in the HSE. Two rounds of regional consultation were conducted.

First round regional consultation ascertained key stakeholders’ views on the assumptions to be included in the development of the draft framework. Second round regional consultation sought feedback on the Draft Framework document. Consultation also took place with other key stakeholders including, Regulatory bodies, Hospital Executive Management, Healthcare Professional Associations and Academic Institutions. Additionally, presentations and forum discussions were held directly between national and international experts and members of the Taskforce to inform decisions on the development of the framework and its recommendations.

Table 1.0 outlines the range of engagement activities undertaken to consult on the development of the framework.
## Table 1.0 Overview of engagement activities

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<thead>
<tr>
<th>Consultation Type</th>
<th>Consultation Description</th>
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<tr>
<td>Regional Meetings</td>
<td>14 regional meetings, 7 sites repeated for each round. Galway, Sligo, Letterkenny, Dublin (Mater and St James’), Tullamore, and Cork.</td>
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<tr>
<td>National and International</td>
<td>9 presentations and discussion forums were facilitated</td>
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<td>Presentations &amp; Discussion</td>
<td>NICE Guidelines</td>
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<td>NICE Evidence Review</td>
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<td>RN4CAST</td>
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<td>Workforce Planning</td>
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<td>Nurse Staffing Levels and Outcomes</td>
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<td>Care Rationing</td>
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<td>Clinical Programmes</td>
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<td>Medical Workforce Planning</td>
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<td>Activity Based Funding</td>
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<td>Stakeholder Briefings</td>
<td>Stakeholder briefings were offered to 22 representative bodies, with 17 attending. Those unable to attend received the updates via newsletter.</td>
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<td>Hospital CEOs (7)</td>
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<td>Irish Patients Assoc.</td>
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<td>Irish Universities Assoc.</td>
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<td>IMO</td>
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<td>Irish Organisation of Technological Institutes</td>
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<td>CORU</td>
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<td>Irish Hospital Consultants Association</td>
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<td>Psychiatric Nurses Assoc.</td>
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<td>HSE Leadership Team</td>
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<td>National HR HSE</td>
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<td>Acute Hospitals HSE</td>
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<tr>
<td>Newsletter</td>
<td>5 Newsletters, at key project milestones, were circulated to all acute hospital Directors of Nursing, Staff Associations, and the stakeholders outlined above.</td>
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</table>
2.3.1 Key outcomes

Throughout the consultation process, the feedback was consistently positive. The emerging themes from the first round of consultation were collated as follows:

- **Patient related factors:** matching nurse staffing to patient need through the measurement of acuity and dependency to reliably assess demand, was a key theme identified. Safe nurse staffing was identified as being more accurately determined through the measurement of individual patient needs rather than just applying a number.

- **Nurse staffing factors:** the skillset, competency and grade mix were identified as important factors affecting the optimum determination of the nursing resource. This included education and qualification level, effective recruitment processes, and adequate nursing hours per patient.

- **Organisational environment factors:** the organisational culture, and ward climate were identified as important factors affecting the ability to recruit and retain skilled members of the nursing team and equally important to delivering quality care. The importance of the supervisory role of the Clinical Nurse Manager was emphasised, whereby time to lead in these roles, was viewed as critically important to patient safety and staff well-being and retention. Equally important was the organisational culture of support for educational and professional development.

- **Measuring patient and staff outcomes:** the measurement of patient and staff outcomes such as patient experience, falls, pressure ulcers, and staff experience, were identified as particularly important indicators of the appropriate nurse staffing resource. Care left undone, was recognised as a mechanism upon which to measure the adequacy of the nurse staffing resource.

- **Factors external to the ward environment:** factors outside of the ward environment, such as the national economic position, or regulatory changes were identified as
macro level factors which should be considered in the wider context of the nurse staffing resource.

- **Governance of the nurse staffing workforce**: the autonomy of senior nursing roles to determine the use and influence the size of the nurse staffing resource, particularly in light of the emergence of the hospital group structures, was viewed as a critical function at executive level.

The emerging themes from the second round of consultation whereby feedback on the draft framework was sought:

- **Accountability**: to make explicit within the document recommendations on the authority of senior nursing roles to determine staffing, and to ensure at executive management and hospital board level ward to board and board to ward nurse staffing workforce planning.
- **Care Left Undone Events**: to provide greater detail on the CLUE (Care Left Undone Events) and its escalation.
- **Acuity and dependency measurement**: reduction in the recommendations on the number of measurement tools, and to include a guide on the selection of tools.
- **Implementation**: greater guidance and examples on the calculation of nurse staffing, along with greater detail supporting the supervisory role of the Clinical Nurse Manager 2.

### 2.3.2 Summary recommendations from consultation

The conclusions and recommendations from the two rounds of consultation resulted in the development of a framework with four overarching assumptions, macro level factors and a nurse staffing workforce governance structure. These are outlined in the box overleaf.
2.4. Research

The body of research data available from the previous Report of the Irish RN4CAST Study (Scott et al. 2013) was harnessed to undertake secondary analysis of this data to examine the basis on which to make recommendations on nurse staffing in Irish hospitals. The analysis was guided by the international literature. The availability of this data provided the opportunity to further examine evidence on the association between nursing and nurse characteristics and certain patient outcomes.

On completion of detailed work on the dataset, the researchers concluded that this national dataset was not sufficiently large to provide the basis for robust conclusions.

2.4.1 Summary recommendations

The researchers recommended that the international literature should be used to inform the development of the framework. As a number of the studies in the international literature base, such as those conducted as part of the RN4CAST project, contain Irish data, they are therefore particularly relevant to the work of the Taskforce.
2.5 Baseline Hospital and Ward Level Staffing Evaluation

A hospital and ward level staffing evaluation, undertaken across all medical and surgical wards in Irish acute hospitals to establish a baseline of current nurse staffing was commissioned to inform the work of the Taskforce. This data was collected to determine nurse staffing and skill mix across medical and surgical wards in 29 acute adult public hospitals. This data was used for the purposes of comparison with the previously published ward and hospital level nurse staffing data from the Report of the Irish RN4CAST Study (Scott et al. 2013) and further inform the development and implementation of the framework and its recommendations. The differences in data collection between the studies, makes some comparisons difficult to interpret. Responses were obtained from all medical and surgical wards in acute hospitals, however not all components of the ward and hospital level data were completed fully. Therefore the data findings should be considered reflective of data from a broad sample rather than a census.

2.5.1 Key findings

A summary of the key findings from the evaluation are included below:

- **Bed occupancy levels:** on average system wide occupancy levels have increased from 92% (RN4CAST) to 97%. 13/19 hospitals in the RN4CAST data and 20/23 in the current evaluation data reported occupancy rates above the 85% critical rate. The highest occupancy rate is evident in Model 4 hospitals, whereby the average occupancy rate is 104%.

- **Overall hospital staffing:** overall staff numbers across the hospitals have reduced since the RN4CAST survey. However of note, registered nurse levels and in particular staff nurse and nurse manager levels seem to be greatly impacted by this reduction (22% reduction for ward manager, and 11% reduction for staff nurses).
• **Patient to nurse ratios:** system wide patient to nurse ratios, on average across medical and surgical wards by comparison to the previously reported RN4CAST data appear to show limited variation. However it is more notable that on average Model 4 hospitals appear to have a higher patient to nurse ratio by comparison to the other model hospitals.

• **Nurse to HCA grade mix:** overall the nurse to HCA grade mix on average appears to have shifted from an average percentage of 85/15 to 75/25.

• **Clinical Nurse Manager supervisory time:** whilst there is some variation between hospital level and ward level reported data, on average 52% (medical wards) and 42% (surgical wards) of CNM 2 time is given to supervisory roles, with the remainder of their time given to assuming a direct patient caseload.

• **Registered nurse experience level:** with the exception of model 2 hospitals it appears that all hospitals report a less experience nursing workforce compared with the RN4CAST data. This is most evident in model 4 hospitals.

### 2.5.2 Summary conclusions from the evaluation

The box below outlines the summary of the conclusions as derived from the analysis of the key findings of the evaluation.

1. **Nurse staffing level:** whilst the data appears to reveal an overall reduction in the nurse staffing levels, the overall patient to nurse ratio, appears to have remained largely static. This should be considered in the context of the reasons for this, which could be attributed to either: a) data issue as identified b) reduced bed number; c) use of supplemental nurse staffing (i.e. agency/overtime). This should be factored into the considerations on the pilot and overall financial estimates.

2. **Role of the Clinical Nurse Manager:** given the evidence on the impact on the role of the ward leader on quality and staff retention, the reduction in the supervisory time of this role currently in the system is worthy of specific consideration in the framework recommendations.

3. **Nurse experience level:** the reduction in the overall nurse experience level should be considered in the context of the recommendations on nurse staffing profiles where experience/competence is taken account of.
2.6 Conclusion

Collectively this multi-pronged approach to evidence and engagement provided a sound foundation upon which to develop the framework assumptions, elements, external influencing factors and organisational nurse staffing workforce planning governance to support safe nurse staffing determination.

The next section of this interim report outlines in detail the proposed components of the framework.
Section 2

This section outlines the Framework and next steps.

Chapter 3 presents the components of the framework complete with recommendations and worked examples.

Chapter 4 provides the next steps to making the Framework happen, including key actions and recommendations.
The Framework
Chapter 3

3.1 Scope of the Framework

The scope of this framework is general and specialist medical and surgical in-patient care settings in acute adult hospitals. The framework excludes intensive care, coronary care, high dependency, theatre, emergency departments, acute medical assessment/admission units, maternity, mental health, intellectual disability, children’s and residential care. This framework identifies the assumptions, elements, external factors and nursing workforce planning governance structures to determine safe nurse staffing and skill mix for registered nurses and healthcare assistants. The use of the term nursing team denotes the inclusion of both registered nurses and healthcare assistants (excluding multi-task attendant) unless otherwise specified.

This framework is relevant to all those at national, regional and organisational level whose responsibility it is to ensure safe nurse staffing and skill mix in general and specialist medical and surgical in-patient settings. This framework is targeted at three core audiences covering the diverse range of roles and responsibilities at local, regional and national level. The three target audiences are as follows;

1. Frontline nurses, middle and senior nurse managers, Directors of Nursing and Group Directors of Nursing, to guide and support a consistent approach to determine safe nurse staffing;

2. Senior hospital management teams and hospital boards of management to support the implementation of appropriate governance requirements at organisational and group hospital level to adequately monitor the impact on patient care outcomes secondary to investment in the nurse staffing resource;

3. Health Service Executive Managers/Directors, to support national service planning in the management of acute hospital services, nursing and midwifery services, clinical care programmes and strategy, quality and patient safety and human resources.

This framework will also be of relevance to regulators, particularly the Health Information and Quality Authority and the Nursing and Midwifery Board of Ireland.
3.2 Structure of the Framework

The evidence to inform the framework identified no single “one size fits all” approach to determining safe nurse staffing and skill mix for use across general and specialist medical and surgical in-patient acute adult hospital settings. The evidence supports the systematic assessment of a range of elements to determine safe nurse staffing and skill mix requirements. This reflects the complexity of a dynamic equation to determine safe nurse staffing and skill mix whereby the estimation will vary across and within organisations due to the changing dynamic of patients, nursing roles and profiles, and the environment. Equally the evidence highlighted the necessity of any approach to be underpinned by professional judgement which has been incorporated into the framework. Hence this framework has been designed to support the most appropriate decisions reflecting a constantly evolving dynamic equation to ensure safe nurse staffing levels and skill mix.

The framework is structured into three distinct yet linked sections that take account of not only these elements but equally the necessary governance requirements to ensure safe nurse staffing and skill mix decisions.

The association between each section of the framework is diagrammatically represented in Figure 2.0 overleaf and detailed in the subsequent sections.
3.2.1 Assumptions

Derived from the evidence, four assumptions describe the beliefs underpinning the core elements used to determine safe nurse staffing and skill mix at ward level. These are listed in the above Figure 2.0.

3.2.2 Elements

Underpinned by the assumptions, are the elements that directly influence the determination of safe nurse staffing and skill mix and therefore need to be systematically assessed and monitored at ward and organisational level. These elements take account of the impact of nurse staffing and skill mix on patient care to ensure appropriate and
immediate escalation and action to safeguard patients. Whilst there is the potential for the inclusion of a large number of factors, only those elements identified as having the greatest impact on patient outcomes in addition to being supported by research evidence have been incorporated.

3.2.3 Macro Level Factors

In addition to the elements that influence the determination of safe nurse staffing and skill mix at ward level, are the macro level factors. These factors are those that are outside the immediate control of the ward environment but nonetheless should be considered at organisational level in the wider context of the health service. These are described using PESTLE (Political, Economic, Sociocultural, Technological, Legal and Environmental) factors.

3.2.4 Nursing Workforce Governance

A primary goal of this framework is to safeguard patient safety and positive outcomes through appropriate nurse staffing and skill mix decisions at ward and organisational level. A fundamental safeguard to assurance lies in an appropriate governance structure in which nurse staffing and skill mix decisions are systematically monitored and reviewed. This framework outlines (Section 4.0) the components of a nursing workforce governance structure, (whereby nursing workforce governance includes the nursing care team inclusive of both registered nurses and healthcare assistants), necessary to ensure ward to board accountability for safe patient care outcomes.

3.2.5 Assumptions and Elements

In this section each of the assumptions and their corresponding elements are outlined in greater detail, inclusive of specific recommendations for implementation in practice.
This first assumption is underpinned by the belief and evidence that all patients are not the same and therefore their care needs are different. Thus the elements influencing the determination of safe nurse staffing and skill mix are those directly related to the patient. Consequently to determine the right staffing and skill mix, requires the measurement of patient care needs systematically and consistently. The HIQA *National Standards for Safer Better Healthcare* (HIQA 2012a) include Standard 6 – Workforce, outlines the requirement for services to plan their workforce needs to take account of the assessed needs of the population being served, the changes in workload and the size, complexity and specialities of the service being provided.

**What this means in practice**

1. It is recommended that organisations decide on an evidence based tool that can be used to consistently and systematically measure patient dependency and acuity at ward level. There are a wide range of tools available to measure dependency and acuity, with many now incorporating the use of this data to calculate total staff needed (Smith et al 2009). Whilst it is beyond the scope of this framework to recommend any one specific tool, it is recommended that Directors of Nursing decide on the most appropriate tool, validated where possible through research for use in the acute care setting. Appendix 2

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2. The development and validation of acuity and dependency tools continues to be an emerging science. Therefore further validated tools may emerge over time thus negating the recommendation for any one specific tool at this point.
provides guidance to assist decision-making on the selection of an acuity and dependency tool.

2 A key success factor to the accurate and consistent measurement of patient acuity and dependency at ward level is support for measurement at management level. The recommended minimum frequency of patient acuity and dependency measurement is a daily measurement on all patients for one month, and subsequently at two intervals per annum (Quarter 1 and Quarter 3). More frequent measurement may be required for example if there is a change/redesign of the service during this time.

3 In some circumstances, there may be the requirement for additional nursing supervision or intervention due to specific patient needs. If these specific patient requirements are not captured in the dependency and acuity tool in use, then this data must be captured to inform the safe nurse staffing requirements. These examples can include:

- the requirement for one-to-one care/ close and constant supervision (often referred to as one-to-one special)
- increased risk of clinical deterioration as evidenced by the patient’s National Early Warning Score
- increased care needs to manage psychological, mental health or intellectual disability needs

4 It is recommended that the use of patient dependency/acuity tools are used in conjunction with professional judgement to determine safe nurse staffing and skill mix requirements in general and specialist medical and surgical in-patient settings.
Bed occupancy and bed utilisation measurements are another important element to capture in determining safe nurse staffing. International guidelines suggest a bed occupancy rate above 85% is likely to impact on quality of care and hospital functioning (Scott et al. 2013). According to Scott et al. (2013), 68% of Irish hospitals reported bed occupancy levels over 85%, thereby indicating that this measure is an important factor in an Irish context. Similarly bed turnover, which identifies the number of admissions, discharges and transfers in a 24 hour-period is a vital component to consider, as it identifies the additional nursing workload generated, yet not captured by bed occupancy. Therefore it is recommended to factor bed occupancy and bed utilisation rates at ward, hospital and hospital group level, and to use this information in decisions on setting safe ward nurse staffing and skill mix requirements. It should be noted that these are factored into the calculations in section 3.5.

The competence required to safely care for patients in a ward with planned and unplanned multiple specialties/distinctive groups of patients adds to the staffing and skill mix requirements in these wards. The first step is to identify the ward’s core speciality/specialities (i.e. agreed designated speciality/specialities), recognising that some wards may provide nursing care to a range of patient groups across multiple specialties. Once identified, the number of non-core speciality admissions to a ward can be monitored. This information is useful to ascertain the degree of diversity in core and non-core specialties, which adds to the staffing and skill mix requirements. To determine the diversity on a longer-term scale and to support future nurse forecasting requirements, the HIPE (Hospital In-Patient Enquiry) system, provides a useful data source to identify trends in patient level diversity and complexity.

Capturing the above data on occupancy, dependency and acuity and core specialities, provides important information on the profile of the ward, the number of patient presentations and the overall activity level. In analysing the data, patterns of predictable higher acuity may become apparent, for example days with increased numbers
of complex surgeries. Therefore, it is recommended that this information is used to interpret possible patterns of predictable demand over the spectrum of the week/month/year, and to allocate the nurse staffing resource according to these patterns.

8 Activity Based Funding (ABF) represents a fundamental change in how healthcare will be funded in Ireland and therefore these changes should be taken into consideration in the wider context of the nurse staffing resource. The potential to inform activity based funding on nurse staffing requirements through the recommendations in the framework on the capture of information related to patient acuity and dependency along with calculation of nursing hours is significant into the future. Through ABF there will be a fundamental shift from funding facilities and settings to funding episodes of care, for which the implementation of the recommendations within this framework will be key.

9 It is recommended that the data and information outlined should be used to provide trend and benchmark data on patient elements within and across wards in addition to across hospitals in the newly establishing hospital groups; this approach will facilitate the use of robust evidence to inform decisions.

Box 1 Patient elements summary

- Acuity and dependency measurement
- Bed utilisation and bed occupancy measurement
- Assessment of ward specialty/specialities
- Use of data to inform predictable patterns to support allocation of resources
This assumption is underpinned by the belief and the evidence that the size and skill mix of the nursing care team is important to delivering high-quality, safe care to patients (Aiken et al 2014, Kane et al 2007). The elements influencing the determination of nurse staffing and skill mix are those directly related to the nursing care team across general and specialist medical and surgical adult in-patient settings in acute hospitals.

**What this means in practice**

1. Collation of information on ward nurse staffing **staff profiles** to take account of education level, skill set, competence and grade mix is required. The association between education level of nursing staff and patient outcomes is reported in the literature; however, nurse staffing profiles in Irish hospitals are not well established which is likely to weaken attempts to determine both the appropriate skill mix and the most effective way to deploy nurse staffing at ward level (Scott et al 2013).

2. Once collected, information on staff profiles can be used to target education and continuing professional development to meet current and emerging patient needs at ward level.
The average grade mix of nurses to healthcare assistants, through data collected during 2009/2010 across Irish hospitals, was 85%/15% (Scott et al. 2013). Other jurisdictions outside of Ireland have advised lower minimum nurse to health care assistant grade mix ranging from 65%/35% (RCN 2012) to 70%/30% (DHSSPSNI 2014) as examples. It should however be noted that in these jurisdictions there are somewhat more clearly defined education paths, roles and responsibilities for this healthcare worker to ensure consistency of care planning and delivery, informed delegation and clearer intra professional boundaries. For example, in the NHS there are defined healthcare assistant grades, categorised into bands that range from band 1 to 4. A recent review of the future education and training of registered nurses and care assistants in England (Health Education England 2014) has clearly set out the educational pathway for care assistant roles. In tandem with this review is the publication of a strategic framework for the development of the support workforce across the NHS. This report outlines the core competencies and role specific standards, in addition to the introduction of a national values-based care certificate to be undertaken by all healthcare assistants (Health Education England 2014).

In determining the most appropriate and safe grade mix therefore the interface between the evolving role of nursing and that of other healthcare professionals, included that of the healthcare assistant roles are a feature that must be considered. The changing role of the nurse for example, impacts not only on the nursing/HCA interface but equally the interface between nursing and the other health professionals and in particular the medical profession. The nursing role is one which is constantly expanding and extending in response to changes in the wider health service, for example in response to changing patient expectations, new technologies and changes in the roles of other healthcare professionals.

There are many factors that can influence the nursing role. One recent example is the change to junior doctors’ hours under the European Working Time Directive, that may influence the scope of the role. This demonstrates the need to factor this element into decisions on determining appropriate nurse staffing and grade mix. As the interface between nursing roles and that of the other health professions evolves in response to
service need, the necessary impact and required competencies in nursing to deliver on these changes needs to be taken into account to ensure safe and effective care. It should however be noted that the current process that is already in place relating to the 4 tasks (being examined under task transfer) is beyond the scope of this framework.

There is much to be learned from the work undertaken in other jurisdictions on the role of the care assistant as described earlier. Therefore, the first recommendation is that a review of the role, function and education of nursing healthcare support workers (i.e. healthcare assistants and multi-task attendant roles) is undertaken in Ireland. A second recommendation is that an initial nursing/HCA grade mix of 80%/20% (once a safe nurse staffing level exists) is recommended for use in the current environment, and that this is the subject of ongoing review, with a view to shifting towards the international norms of 75%/25% based on the outcomes of the review from the first recommendation above.

A stable and sustainable workforce with the requisite education, training, skills and competence is vital to the delivery of safe patient care. Thus effective management of recruitment is critical to ensure prompt staff replacement. The Director of Nursing, in collaboration with local/national human resources personnel, must lead on this at hospital level. This should include the active monitoring of staff turnover rates and recruitment times at ward, hospital and hospital group level in order to ascertain the effectiveness of current processes to maintain safe staffing levels. Mechanisms to support effective collaboration, communication and feedback at all levels of the health service (from local hospital, hospital group and National Recruitment Service (NRS)) are also required to ensure an effective bottom up and top down approach to recruitment that is equally timely and appropriate. This requires direct channels of communication between the Director of Nursing /local human resources, the Group Director of Nursing and the NRS. The aim is to ensure that service needs are met at local level in a timely fashion, and that appropriate and responsive
action can be taken in the event that recruitment processes are identified as less than optimal, and potentially impacting on the ability to provide safe effective care.

5 Planned and unplanned absences are a reasonable expectation from any staffing resource. Planned absence is defined as expected absence such as annual leave, maternity leave and mandatory education leave. Unplanned absence is unexpected absence such as sickness absence. Allowing for a **planned and unplanned absence percentage** is essential to determine nurse staffing and skill mix requirements. The current percentage allowance in Ireland is 20%, however this is subject to ongoing review, to reflect any future changes, for example such as changes to mandatory education requirements. As maternity leave rates can vary considerably between organisations, this 20% figure does not include maternity leave, and therefore must be added. The setting of an absence allowance at organisational level is recommended as organisations will need to increase the allowance to take account of maternity leave rates in their individual organisation. The absence of this data intelligence at organisational level may lead to a lack of appropriate investment in the nurse staffing resource with resultant negative patient and staff outcomes and increased costs through temporary nursing staff usage.

6 A “Tipping Point” is used to denote the nurse staffing point at which there is a known increased likelihood of care becoming unsafe. It is important that each ward/hospital/hospital group determines their individual known “Tipping Point”, as there is no “one size fits all” to determining nurse staffing and skill mix requirements. The tipping point, which is dependent upon local factors, may vary for each ward/hospital/hospital group and therefore must be determined locally to inform safe nurse staffing and skill mix. Research evidence suggests there is a known increased risk of patient harm associated with one nurse caring for more than eight patients on a day shift. It is critically important to understand that this is an **Unsafe Staffing Zone**. It does not represent a safe nurse staffing level. A safe nurse staffing level can only be determined locally based on local data.
to inform a known tipping point. The locally determined tipping point will take account of additional local factors related to skill mix, organisational environment and ward climate for example. Coupled with the measurement and monitoring of patient outcomes (for example Safety CLUEs) and nurse outcomes this collective information will provide the locally known tipping point. Of note to the research evidence in this area, is that it did not include data from Irish hospitals whereby jurisdictional variances exist, for example Irish hospital occupancy rates. This reinforces the necessity for a locally determined tipping point.

Box 2  Nurse staffing elements summary

- Systematic assessment of ward staff profiles
- Initial Nurse / HCA grade mix of 80%/20% subject to ongoing review, once a safe staffing level exists
- Timely recruitment
- Planned and unplanned absence allowance
- Integration of multiple information sources to determine nurse staffing level and skill mix
- Safe care Tipping point  - locally determined tipping point to ensure safe nurse staffing and skill mix level
This assumption is underpinned by the belief and the evidence that features of the organisational environment, such as the ward climate, organisational culture, ward/organisational care processes and, ward size and layout has a direct impact on the ability of the nursing team to deliver safe effective care (See Document One- Main Report for evidence). The more positive the organisational culture and ward climate are, where staff are respected, supported, developed and listened to, the better the outcomes for both patients and staff (Kapinos et al 2012; West and Lyubovnikova 2013; West and Dawson 2012).

What this means in practice

1. An organisational culture and ward climate that:
   - fosters a culture of patient safety and quality improvement;
   - fosters transformational leadership as the model for clinical leadership;
   - facilitates empowerment;
   - recognises and supports staff development;
   - as a hospital, supports education at all levels- from pre-registration to post registration;
   - encourages and supports staff to perform their job to their maximum potential;
   - cultivates exemplary practice; values staff and has open and transparent processes to facilitate and encourage staff to raise concerns;
   - promotes innovation and improvement,
   - recognises, invests in and supports the key role the ward leader plays in creating and sustaining a positive ward environment.
2 **Ward leadership** is an important factor to creating and sustaining a positive ward environment which, in turn has an impact on patient outcomes. Ward leaders play a significant role in patient safety as they lead and manage a workforce which has the highest level of contact and the most diverse range of interactions with patients (Riley 2009). Across a broad range of clinical settings, this role has demonstrated positive associations with patient outcomes (Wong et al 2013). Positive workplace environments are built and sustained by strong nurse leaders (Duffield et al 2011, Malloy and Penprase 2010). For these reasons, it is recommended that organisations invest in ward leader capacity by ensuring that 100% of the role of the CNM2 is safeguarded to fulfil his/her supervisory and leadership role. Notwithstanding that this acknowledges the balance to be maintained between clinical and professional credibility and managerial functions, to create and sustain a positive, high quality ward environment for patients and staff. As outlined in the Commission on Nursing Report (1998), there is a need for an additional post in the management of a ward. This is described as the CNM1 as required by the activity and complexity of the nursing/midwifery service, with clearly defined roles and responsibilities, in addition to assuming charge of the ward in the absence of the CNM2. It is therefore recommended that organisations invest in the role of the CNM1, in recognition not only of their supportive role to the CNM2, but equally for their importance as a necessary provision for CNM2 succession planning across the organisation.

3 Adoption of **care processes** and **models of care delivery** across general and specialist medical and surgical adult in-patient settings, that foster patient centred care (The Health Foundation 2014), team work and team support in addition to supporting safe, effective and efficient care delivery. Examples of these could include:

- **Productive Ward series**- a ward based quality improvement programme under the Releasing time to care initiative to empower nurses, and multidisciplinary teams to streamline work processes (collaborative initiative by the Quality Improvement Division and the Clinical Strategy and Programmes division, Office of the Nursing and

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3 supports people to make informed decisions about successfully managing their own health and care, and choose when to invite others to act on their behalf
Midwifery Services Director, HSE). This includes initiatives such as clinical handover using the ISBAR (Identify, Situation, Background, Assessment and Recommendations) to communicate patient information safely, effectively and efficiently.

- Careful Nursing Philosophy of Professional Practice Model (Meehan 2003) – a professional practice model underpinned by a philosophy framed by three principles; 1) the nature and inherent dignity of the human person; 2) infinite transcendent reality in life processes; and 3) health as human flourishing; and four practice dimensions: 1) the therapeutic milieu; 2) practice competence and excellence; 3) management of practice and influence in health systems; and 4) professional authority. This model includes in its focus the impact on patient outcomes.

- Safety Pause- a practice initiative by the Quality Improvement Division (2013), that raises awareness by all teams to be more proactive about the challenges faced in providing safe, high quality care. This is undertaken in practice through questioning at every opportunity “what patient safety issues do we need to be aware of today?” The four ‘Ps’ act as examples to prompt the discussion (Patients, Professionals, Processes and Patterns).

- Ward size and layout are features of the ward environment that are taken into account in the assessment of care delivery processes such as the Productive Ward – equally they should be taken account of in nurse staffing decisions whereby, for example single rooms can affect patient surveillance capacity.

Box 3  Organisational elements summary

- Positive organisational culture
- Positive ward climate as a reflection of effective clinical leadership
- Adoption of care process and models of care delivery to foster team work and safe, effective and efficient care delivery
- Factoring in ward size and layout
This assumption is based on the belief and the evidence that the nurse staffing and skill mix resource has a direct impact on patient and staff outcomes (Aiken et al 2014; Aiken et al 2012; Duffield et al 2011; Griffiths et al 2014; Simon et al 2014 ). Therefore, monitoring staff and nurse sensitive patient outcomes is necessary to determine if the nurse staffing and skill mix resource is at a safe level and is capable of adequately meeting patients’ needs. Similarly, missed care interventions and rationing of care have been described in the evidence to denote the inability to carry out necessary care or decide upon which care interventions to ration/leave undone due to inadequate nurse staffing level or skill mix (Ausserhofer et al 2013; Ball et al 2013; Schubert et al 2013, 2012, 2008). Monitoring missed care/care left undone events provides key insights into the adequacy of the nurse staffing level and skill mix across general and specialist medical and surgical adult in-patient settings.

What this means in practice

1. It is recommended that organisations put in place mechanisms to measure nursing sensitive key performance indicators systematically and consistently to identify if the nurse staffing resource is capable of adequately meeting patient needs. Indicators can be used to measure structures, processes and outcomes. The KPI’s recommended in this section are those measuring outcome. The recommended nursing sensitive Key Performance Indicators as identified through the evidence as sensitive to the nurse staffing resource and included for collection in an Irish context are as follows:
- Falls incidence
- Pressure ulcers

Both indicators have been included for KPI reporting in the HSE National Service Plan for 2015 (HSE 2015), which will support organisations that are not currently collecting this data to begin the process. The outcomes to be evaluated are falls with injury, and Hospital Acquired Pressure Ulcers stage 2 to 4 and structure and process indicators (i.e. service variables that are controlled by the hospital and important for benchmarking purposes) as well as basic patient characteristics to contrast patient populations. This data provides evidence that is critically important for all hospitals to have access, to performance benchmark data to understand comparative performance on patient outcomes, in order to prioritise nurse performance improvement and resources. Measurement and monitoring of event occurrences in hospitals to delineate required resources and change in practice is essential for an effective performance improvement programme. Leaders must also understand the systems around care delivery i.e. staffing, skill mix the amount of time nurses and other providers spend in direct patient care, the use of evidenced-based interventions and risk assessment activities (Storer Brown, Donaldson, Burnes Bolton and Aydin 2010).

This data should be monitored at ward, hospital and hospital group level for comparison with nurse staffing and skill mix data as an indicator to inform decisions on the adequacy of the nurse staffing resource to meet patient needs.

2 As previously referred to KPI’s can be used to measure structure, process and outcome. This section outlines recommendations on the measurement of process KPIs. The measurement of nursing process KPIs provide valuable indicators of nursing processes. Nationally the Office of the Nursing and Midwifery Services Director is implementing the Nursing & Midwifery Quality Care-Metrics to provide a systematic approach to the capture of nursing process KPIs known also a nursing metrics. Foulkes (2011) defined metrics as
“performance quality indicators that provide a framework for how fundamental nursing care can be measured”. A core suite of nursing and midwifery process metrics were developed based on established standards from both the professional (NMBI) and organisational regulators (HIQA, Mental Health Commission); and from evidence of best practice for implementation across acute services, midwifery care, intellectual disability, and mental health, with development work on-going in children’s nursing. The focus of the metrics for acute care are:

- Pressure ulcer assessment, falls assessment; National Early Warning Score/Observations; medication storage and custody; medication administration and nursing documentation (including discharge planning and medical device review).

3 The evidence linking nurse staffing with patient satisfaction demonstrates the value of measuring patient experience of nursing care as an outcome measure (Aiken et al 2012). Measuring patient experience of nursing care is recommended as a patient outcome measure at ward level, and can be undertaken/ incorporated within the wider context of patient experience surveys at hospital level to ascertain patients’ views on the experience of care. Questions that capture involvement in decisions regarding care, dignity, privacy and respect, time to be listened to, can provide insightful information on the ability of the nursing workforce to meet patients’ needs as identified by patients themselves.

4 The impact of the work environment on nurse staffing is well documented (Estabrooks et al 2005; Friese et al 2008). Therefore measurement of staff experience is recommended to capture information on the work environment as a key component to nurse staffing. Ascertaining information on levels of job satisfaction, intention to leave, professional development and career opportunities, support and engagement can provide important insights of staff experience at both ward and hospital level. Measuring this data a minimum of biannually by the CNM2 is recommended.
The withholding or failure to carry out certain aspects of care due to inadequate/limited resources is often referred to as care left undone/missed care/care rationing. Potential causes of care rationing have been reported as nurse-patient workload and communication barriers (Papastavrou et al 2013). More importantly, it has been identified as a predictor of patient outcomes (Schubert et al 2008), including patient falls, nosocomial infection and low patient satisfaction levels, in addition to nurse related outcomes including low job satisfaction (Papastavrou et al 2013).

Capturing missed care/care left undone activities on a shift-by-shift basis provides the opportunity to identify, escalate and respond to immediate patient safety concerns directly related to staffing adequacy. Missed care/care left undone are referred to as “Safety CLUEs” (Care Left Undone Events). An example of some of the key activities to be monitored as a first line of enquiry into staffing adequacy are included in Box 4 below. It is recommended that these are monitored on a shift-by-shift basis by the Clinical Nurse Manager or his/her designate, with a clearly defined reporting, escalation and response protocol developed at organisational level. Additional CLUEs to those outlined below may be agreed at organisational level.

**Box 4 Safety CLUEs**

- Inability to provide adequate patient surveillance – e.g. post-operative or post procedure or patients who are disoriented/ at risk of fall;
- Inability to carry out vital observations in accordance with the parameters set out by the National Early Warning Score;
- Delay or unplanned omission in providing patient medications;
- A delay or unplanned omission in supporting patients with necessary physical needs such as toileting, washing, mobilising/repositioning, eating and drinking;
- Missed meal breaks by staff;
- Delay or omission in recording clinical practice/developing and updating care plans.
3.3 Macro Level Factors

It is acknowledged that there are many elements and factors influencing the appropriate determination of the required nurse staffing and skill mix level to provide safe, effective patient care. In the previous sections the elements related to patients, nurse staffing, organisational and patient outcomes have been discussed as those most pertinent for review when setting the ward nurse staffing requirement. There are however wider elements, described here as the macro level factors which should be considered by those at senior organisational level responsible for the overall governance of the nurse staffing workforce. Figure 3.0 outlines the macro level factors that organisations should be aware of potentially impacting on the nurse staffing resource. The factors are presented using a PESTLE (Political, Economic, Sociocultural, Technological, Legal and Environmental).

Figure 3.0 Macro Level Factors

- **Political**  
  • Government policy, health service reform and redesign

- **Economic**  
  • Funding, national economic situation and health budget

- **Sociocultural**  
  • Population demographic, population health, education and lifestyle, public expectations

- **Technological**  
  • Emerging technologies, procedural and business - e.g. e-rostering

- **Legal**  
  • Regulation (professional and health regulation), employment law

- **Environmental/Educational**  
  • Environmental requirements; Macro educational requirements
3.4 Nursing Workforce Governance

Senior hospital management and hospital boards of management, as demonstrated through high profile reports on patient safety (Francis Report 2013, HIQA Tallaght Hospital Report 2012b), take full responsibility for the governance of patient care including the nurse staffing capacity and capability to deliver safe care. The key principle for governance in this context is the assurance that patients receive safe effective care across the hospital and in each individual ward, delivered by the optimum nursing workforce (whereby the nursing workforce in this context refers to registered nurses and healthcare assistants). Therefore, the governance arrangements must provide the assurance that there is sufficient staffing capacity and capability informed by robust evidence based systems and processes to ensure patients receive the care they need in the ward where they are located. In the context of setting nurse staffing and skill mix levels, appropriate governance to assure autonomy, authority and accountability needs to be in place at various points in the system to take account of the day-to-day nurse staffing decisions in addition to the wider governance of the nursing workforce.

1 Central to this in practice is the recommendation for the autonomy of the Group Director/Director of Nursing to determine safe staffing and skill mix levels across the hospital/hospital group, as part a member of the management team. In order to fulfil this function safely, effectively and efficiently the Group Director/Director of Nursing, as a member of the management team needs to determine, control and influence the size and utilisation of the nursing budget. Notwithstanding that this is undertaken within the context of an overarching pay framework, recognising that as a member of the management team there are often competing demands on the overall hospital budget. A pre-requisite to managing this budget, is the collaborative support of the Finance Director to provide regular data, detail and advice on nursing expenditure, to support informed decisions on managing the nursing budget to respond to variation in patient needs and staffing.
Figure 4.0 outlines the necessary nursing workforce governance from ward to board and board to ward, that senior hospital management and/or hospital boards of management must ensure is in place. In its simplest form, the setting of nurse staffing and skill mix requirements occurs at two levels: 1) ward level and; 2) hospital level.

**Figure 4.0  Nursing workforce governance structure**

- **Triangulation**
- **Systematic**
- **Professional Judgment**

**Day to Day Monitoring and Review of Nurse Staffing Requirements**

- **Senior Nurse Manager & Clinical Nurse Manager** determine, recommend and monitor Nurse Staffing and Skill Mix Requirements

**Director of Nursing & Group Director of Nursing**

**Outcomes**
- Falls
- Pressure ulcers
- Staffing CLUEs
- Patient and Staff Experience

**Workforce & Finance Data**
- Acuity and Dependency
- Occupancy
- Establishments
- Turnover & Vacancy
- Temporary/Agency/Bank staff use
- Recruitment
- Nursing budget data

**Organisational**
- Clinical leadership capacity
- Organisational culture
- Care process initiatives

**Hospital/Group Executive Management Team**

**Hospital/Group Board**

**WARD TO BOARD/BOARD TO WARD ACCOUNTABILITY**

**WARD TO BOARD/BOARD TO WARD ACCOUNTABILITY**

**WARD TO BOARD/BOARD TO WARD ACCOUNTABILITY**
3 At its first level, a key principle is the determination, recommendation and monitoring of nurse staffing and skill mix requirements at ward level. This is undertaken by the Clinical Nurse Manager and the Senior Nurse Manager, using the approach outlined in the section five. At this point in the process, the Clinical Nurse Manager and Senior Nurse Manager determine, recommend and monitor nurse staffing and skill mix levels in her/his individual clinical area. This is undertaken, in the first instance a minimum of twice yearly using the approach outlined in section five with their recommendations on the total nurse staffing and skill mix requirements (i.e. establishment) advised and recommended to the Group Director/Director of Nursing. In addition, the Clinical Nurse Manager and Senior Nurse Manager undertake the day to day monitoring of nurse staffing and skill mix with escalation as necessary of **Safety CLUEs** as a mechanism to prompt a repeated nurse staffing and skill mix review as required. It is recommended therefore that Clinical Nurse Managers and Senior Nurse Managers are responsible for the collection and interpretation of data related to patient need, nurse staffing and skill mix, organisational elements and patient outcomes in order to make informed decisions on the setting of nurse staffing and skill mix requirements.

4 At hospital level, the Group Director/Director of Nursing provides key data and reporting on the nursing workforce at senior hospital level. Reporting at this level will integrate the recommendations by his/her Clinical Nurse Managers/Senior Nurse Managers on the nurse staffing and skill mix requirements and organisational features, along with key data on outcomes, workforce and the nursing budget with the support of the Director of Finance, Human Resources (HR) and Quality and Safety. Therefore, it is recommended that Group Directors/Directors of Nursing monitor and review the staffing and skill mix requirements based on their collaborative engagement with Senior Nurse Managers, HR, Finance and Quality and Safety. It is recommended that Directors/Group Directors of Nursing have the autonomy to present staffing reports which detail ward level outcomes, organisational and workforce data, along with the necessary budgetary implications to advise and provide direction on the review and monitoring responsibility by the hospital senior management team and/or boards of management.
5  Senior hospital management must be assured that this data has been gathered using robust evidence based methods that are applied consistently, and includes triangulation of methods inclusive of professional judgment.

6  Each Hospital/Hospital Group must put in place a mechanism to communicate the outcomes from the discussion on the nursing workforce to complete the board to ward accountability loop. One example may include a nursing workforce bulletin communicated at key points throughout the year to disseminate the wider workforce decisions. Similarly, the quality and safety walk-rounds, advocated by the Quality and Safety Directorate (2013) allow executive/senior management team members to have a structured conversation around safety with frontline staff and patients. They are also a way of demonstrating visible commitment by listening to and supporting staff when issues of safety are raised. The walk-round can be focused on any location or service that may affect patient care and safety of the organisation, for which the nurse staffing resource plays a significant part, and therefore can contribute to these discussions at ward level, fostering ward to board and board to ward accountability.

7  The review and monitoring of nurse staffing and skill mix reports by senior hospital management teams and/or boards of management, and hospital group boards, ensures ward to board accountability and provides the assurance of appropriate nursing workforce governance. It is recommended that each management team/board of management/hospital group board meeting should include a standing item agenda on workforce management and planning – including the nursing workforce. This provides the opportunity for senior management to monitor:
• the systematic use of robust methods coupled with triangulation and professional judgment;
• the application of collaborative decision making by those at clinical level (Clinical Nurse Managers) with their nurse managers at Senior Nurse Manager and Director of Nursing level;
• the effectiveness of investment at local hospital and hospital group levels in nurse staffing level and skill mix through data on patient outcomes and Safety CLUEs;
• the trends at local and hospital group levels on patient, staffing, organisational, nurse and patient outcomes, which will drive review of staff education investment;
• the potential influences of PESTLE factors on nurse staffing and skill mix;
• current or emerging issues and/concerns with appropriate responsive decisions and actions.
3.5 Calculating the Ward Staffing Establishment

This section outlines the series of steps that should be undertaken when calculating a safe ward staffing establishment incorporating the guidance outlined in the previous sections in addition to the use of Nursing Hours per Patient Day (NHpPD). Nursing Hours per Patient Day (NHpPD) is a systematic method used to both measure and monitor the required direct care nursing hours to guide the most appropriate, safe and effective nurse staffing model.

Guiding principles on NHpPD for specific clinical settings are defined in this section to provide both the guidance on these hours in addition to providing the mechanism for benchmarking of services. This section must be read in conjunction with the previous sections to factor the essential elements influencing the nurse staffing and skill mix requirements. It should also be noted that a core component to calculating the safe ward staffing establishment is the integration of professional judgment which is equally highlighted in this section. The following sections outline the series of steps to be undertaken along with scenario examples.

When calculating the Nursing Hours per Patient Day (NHpPD) a minimum of two months data is to be used (i.e. Quarter 1 and Quarter 3 data as a minimum).
Step One

**Measurement**

Each ward/unit provides one month’s data outlined below twice yearly (Q1 & Q3) at a minimum (or more frequently if clinical judgment indicates changes in the ward environment) to inform the decisions on safe nurse staffing requirements. The tool in Appendix 4 should be used in conjunction with this section.

<table>
<thead>
<tr>
<th>Acuity and dependency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acuity and dependency is measured daily on all patients for one month twice yearly (Q1 and Q3). This data provides an acuity and dependency profile for the ward/unit (see appendix 2 for further details).</td>
</tr>
<tr>
<td>The data should be presented as percentages for the overall ward/unit per acuity/dependency category.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bed Occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculate the average daily bed occupancy percentage for each month (Q1 &amp; Q3), twice yearly. This data is gathered as part of hospital administrative data for ward/unit level. Note additional beds, not usually part of the normal ward complement are to be factored into the calculation on bed occupancy.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nurse Staffing Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculate for each month (Q1 and Q3), twice yearly, the total Staffing Whole Time Equivalents (WTE) used. This must include a breakdown of total hours for registered nurses, health care assistants/multi-task attendants and nursing intern students, inclusive of additional resources such as agency and bank nursing and HCA hours. Calculate the total WTE used for each month, twice yearly.</td>
</tr>
<tr>
<td>Use this data to inform an accurate grade mix profile; i.e. Nurse/Healthcare Assistant/Multi-task Attendant/Nursing Intern Student mix.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nurse Staffing Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over each month (Q1 and Q3), undertake a staff survey to determine the current education and skills of the ward/unit nursing team. Use this data to inform HR recruitment and retention strategies; this will facilitate understanding of education level, specialist skills and competence to deliver safe care.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Calculate Nursing Hours per Patient Day (Direct Care)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using the process and tools outlined in Appendix 3, calculate the Nursing Hours per Patient Day for the ward/unit.</td>
</tr>
<tr>
<td>If there are a regular number of patients requiring one-to-one nurse special/supervision in your ward/unit, it is advisable to separate these patients from the calculation of NHpPD, as they are likely to skew the data. Alternatively, treat these patients as a split ward category as outlined in the NHpPD scenarios (see below).</td>
</tr>
<tr>
<td>The guiding principles on NHpPD in Step 3 are to be used to inform decisions on safe nurse staffing and how they relate to the calculated NHpPD(see below).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Calculate indirect nursing care hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHpPD captures the direct care provided to patients. The additional demand on nursing time for example: supervision and assessment of learners, inter-professional communication, attendance at operational meetings etc., must also be calculated per day. This requires the professional judgment of the Clinical Nurse Manager.</td>
</tr>
<tr>
<td>The calculation of indirect nursing care hours, can also take into account the impact on nursing time, from geographical ward/unit layout. For example an additional 0.72 nursing hours (3% of total 24 hours) may be factored for a ward/unit with mainly single rooms.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Calculate Absence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>The baseline absence rate is 20%, exclusive of maternity leave. The actual maternity leave must be calculated in conjunction with HR at hospital level and added to the baseline to determine an accurate absence rate.</td>
</tr>
</tbody>
</table>
Step Two  |  Calculating the Ward/Unit Safe Nurse Staffing Establishment
---|---
The following scenarios demonstrate the steps to calculate the ward/unit safe nurse staffing establishment.

**Scenario 1**
- **Ward Descriptor**: Low complexity, general medical ward in a Model 2 Hospital
- **NHpPD**: The NHpPD was calculated to be 4.3.
- **Acuity & Dependency**: *Categories: Low (89%), Medium (0%), High (11%), Very high (0%).*
- **Number of Beds**: 21
- **Bed Occupancy**: 95%
- **Nurse Staffing**: Current nurse staffing establishment is: CNM2=1; RN = 16.1, Nursing Intern = 0.5; HCA = 2.5. Total WTE = 20
- **Indirect Care Hours**: 2.5 HCAs are supplementary staff through the Bank
- **Indirect Care Hours**: 5.6

**Calculation Formula**
- **Calculate average hours per day**: $4.3 \times 19.95 \times (95\% \text{ Occupancy}) + 5.6 \times (\text{Indirect Hours}) = 91.3$
- **Calculate hours per year**: $91.3 \times 365 \times (\text{yearly hours required}) = 33,355.5$
- **Calculate WTE**: $33,355 / 2028 \times (52 \text{ weeks} \times 39 \text{ hours}) = 16.4\text{WTE}$
- **Calculate absence WTE**: $16.4 \times (22\% \text{ absence rate}) = 3.6 \text{WTE}$
- **Calculate total WTE**: $16.4 + 3.6 = 20 \text{ WTE}$
- $20 + 1 \times (\text{CNM2} @ 100\% \text{ Supervisory})$
- **Total WTE**: 21

*The acuity and dependency categories have been generically listed, rather than to reflect any one specific tool categories. The categories are used in this instance to reflect incremental increases in acuity and dependency along a spectrum.

**Interpreting the recommended Total WTE**
The above example reveals a newly recommended nursing team WTE of 21, where 1WTE is safeguarded for the role of the CNM2. Whilst this is a marginal increase, the most significant change will be a shift to a more stable workforce whereby the previous transient 2.5WTE HCA posts, will now form part of the core nursing team on this ward.
### Step Two

#### Calculating the Ward/Unit Safe Nurse Staffing Establishment

The following scenarios demonstrate the steps to calculate the ward/unit safe nurse staffing establishment.

**Scenario 2**

<table>
<thead>
<tr>
<th>Ward Descriptor</th>
<th>Moderate complexity, general medical ward in a Model 3 Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHpPD</td>
<td>The NHpPD was calculated to be 4.9.</td>
</tr>
<tr>
<td>Acuity &amp; Dependency</td>
<td><em>Categories: Low (44%), Medium (56%), High (0%), Very high (0%).</em></td>
</tr>
<tr>
<td>Number of Beds</td>
<td>31</td>
</tr>
<tr>
<td>Bed Occupancy</td>
<td>98%</td>
</tr>
</tbody>
</table>
| Nurse Staffing  | Current nurse staffing establishment is:  
                      CNM2=1; CNM1=1; RN = 16; HCA= 14  
                      Total WTE = 32  
                      4 HCAs are supplementary staff through the agency |
| Indirect Care Hours | 5.6                                                               |

**Calculation Formula**

1. **Calculate average hours per day**  
   \[ 4.9 \text{ NHpPD} \times 30.3 \ (98\% \text{ Occupancy}) + 5.6 \ (\text{Indirect Hours}) = 154.07 \]

2. **Calculate hours per year**  
   \[ 154.07 \times 365 \ (\text{yearly hours required}) = 56,235.5 \]

3. **Calculate WTE**  
   \[ 56,235.5/ \ 2028 \ (52 \text{ weeks x 39 hours}) = 27.7WTE \]

4. **Calculate absence WTE**  
   \[ 27.7 / 100 \times 22 \ (22\% \text{ absence rate}) = 6.1 \text{ WTE} \]

5. **Calculate total WTE**  
   \[ 27.7 + 6.1 = 33.8 \text{ WTE}  
   33.8 + 1 (CNM2 @100\% Supervisory)  
   \text{Total WTE} = 34.8 \]

**Interpreting the recommended Total WTE**

The above example reveals a newly recommended nursing team WTE of 34.8, where 1WTE is safeguarded for the role of the CNM2. Whilst this is a marginal increase, once again the most significant change will be a shift to a more **stable workforce** whereby the previous transient 4 WTE HCA posts, will now form part of the core nursing team on this ward.
### Scenario 3

<table>
<thead>
<tr>
<th>Ward Category</th>
<th>Moderate – High Complexity Care, Mixed Respiratory/Nephrology Ward in a Model 4 Hospital. Ward has a 4 bedded high observation ward</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHpPD</td>
<td>The NHpPD was calculated to be 5.2 on average, with a NHpPD of 7 for the patients in the high observation ward.</td>
</tr>
<tr>
<td>Acuity &amp; Dependency</td>
<td>Categories: Low (45%), Medium (25%), High(21%), Very High(9%)</td>
</tr>
<tr>
<td>Bed Number</td>
<td>22</td>
</tr>
<tr>
<td>Occupancy</td>
<td>104%</td>
</tr>
<tr>
<td>Nurse Staffing</td>
<td>Current nurse staffing establishment is: CNM2-1; CNM = 1; RN-18, Nursing Intern- 1; HCA- 11. Total WTE = 32</td>
</tr>
<tr>
<td></td>
<td>2 WTE RN and 10WTE HCA are supplementary staff through the Agency and Bank</td>
</tr>
<tr>
<td>Indirect Care Hours</td>
<td>5.6</td>
</tr>
</tbody>
</table>

#### Calculation Formula

**Calculate average hours per day**

\[ a) \quad 5.2 \times \text{NHpPD} \times 18.8 \times (104\% \text{ Occupancy of 18 beds}) + 5.6 \times \text{Indirect Hours} = 103.3 \]

\[ b) \quad 7 \times \text{NHpPD} \times 4 \times (\text{High Obs Beds}) + 5.6 = 33.6 \]

**Calculate hours per year**

\[ a) \quad 103.3 \times 365 \times \text{(yearly hours required)} = 37,704.5 \]

\[ b) \quad 33.6 \times 365 \times \text{(yearly hours required)} = 12,264 \]

**Calculate WTE**

\[ a) \quad \frac{37,704.5}{2028} \times 52 \times 39 = 18.5 \]

\[ b) \quad \frac{12,264}{2028} \times 52 \times 39 = 6.0 \]

**Calculate absence WTE**

\[ a) \quad \frac{18.5}{100} \times 22 \times (22\% \text{ absence rate}) = 4.0 \text{ WTE} \]

\[ b) \quad \frac{6.0}{100} \times 22 \times (22\% \text{ absence rate}) = 1.3 \text{ WTE} \]

**Calculate total WTE**

\[ a) \quad 18.5 + 4.0 = 22.5 \text{ WTE} \]

\[ b) \quad 6.0 + 1.3 = 7.3 \text{ WTE} \]

\[ c) \quad \text{Total} = 22.5 \times 7.3 = 29.8 \text{WTE} \]

\[ d) \quad 29.8 + 1 \times (\text{CNM @ 100\%Supervisory}) \]

\[ e) \quad \text{Total WTE} = 30.8 \]

### Interpreting the recommended Total WTE

The above example reveals a newly recommended nursing team WTE of 30.8, where 1WTE is safeguarded for the role of the CNM2. Whilst this is a marginal decrease, the most significant change is the shift towards a more substantially **stable workforce**. In this example, over one third of the current nursing team is unstable, as it is supplied through a transient workforce of 12WTE agency and bank. The newly recommended WTE will provide for 100% team stability.
### Step Three

#### Nursing Hours per Patient Day Guiding Principles

The following guiding principles are to be used to inform decisions on the most applicable NHpPD related to a ward/unit. Two categories may be used where there are clearly differing patient requirements in the same ward.

<table>
<thead>
<tr>
<th>NHpPD Category</th>
<th>NHpPD</th>
<th>Category</th>
<th>Clinical Setting Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 or greater</td>
<td>6</td>
<td>A</td>
<td><strong>Very High Complexity</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Very high dependency &amp; acuity level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Very high intervention level: e.g. acute post-operative neurosurgical unit in a surgical ward</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Model 4 Hospital Care Setting</td>
</tr>
<tr>
<td>5.5 – 5.9</td>
<td>5.5</td>
<td>B</td>
<td><strong>High Complexity</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High intervention level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Special Unit/Ward (e.g. high observation unit within a ward)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Model 4 Hospital Care Setting</td>
</tr>
<tr>
<td>5 - 5.4</td>
<td>5</td>
<td>C</td>
<td><strong>Moderate - High Complexity Care</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Moderate - High intervention level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Ward/Unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Increasing complex medical/surgical care e.g. post complex urological surgery (prostatectomy)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Typically Model 4 Hospital Care Setting</td>
</tr>
<tr>
<td>4.5 – 4.9</td>
<td>4.5</td>
<td>D</td>
<td><strong>Moderate Complexity Care</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Moderate intervention level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Ward/Unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>General medical/surgical e.g. general respiratory, gynaecological surgery, elective and emergency admission</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Typically Model 3 Hospital Care Setting</td>
</tr>
<tr>
<td>4 - 4.4</td>
<td>4</td>
<td>E</td>
<td><strong>Low – Moderate Complexity Care</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sub-acute Ward/Unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>General medical/surgical/ rehabilitation ward/unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Typically Model 2 Hospital Care Setting</td>
</tr>
</tbody>
</table>
3.6 Conclusion

In the previous sections, the Framework assumptions, macro level factors, nursing workforce governance, along with a practice step-by-step guide have been outlined in order to provide a comprehensive approach underpinned by evidence to determine the optimum nurse staffing resource.

The recommendations set out in this framework represent a significant shift in the way in which current nurse staffing resources are determined. This therefore will require hospitals and hospital groups to commit to a structured plan, involving nurses at all levels, in different roles to engage and lead on the implementation of this framework.
The Way Forward

Making it Happen
Chapter 4

4.1 Introduction

This Interim Report sets in train a potential mechanism to deliver a structured approach to determine nurse staffing and skill mix across acute in-patient general and specialist medical and surgical wards.

As a first generation “prototype” for the Irish health services, it is critically important to test both the capability of, and development processes required for successful implementation across the services. Testing of the framework is required to assure the capability of the framework to deliver on its intended outcomes. This demands careful consideration of the key actions required in taking the next steps.

4.2 Key Actions

A key action in bringing the framework towards national roll-out is to undertake a planning and testing phase. The planning and testing phase will examine the logic of each component and how the framework as a whole can be reliably applied into practice. In order to achieve this, the below actions, separated by two distinct phases; the planning phase and the testing phase; are recommended.

At planning phase it is recommended;

- To establish a Taskforce Oversight Group as a subgroup of the Taskforce Steering Group comprising HSE Acute Hospital Division, HSE HR, HSE Finance, HSE Quality Improvement, Hospital/Hospital Group level Director of Nursing, HR, CEO, Finance, academic partners and the staff associations, CNO office Department of Health (DoH) and Office of the Nursing and Midwifery Services Director (ONMSD). This group will report progress to the main Taskforce Steering group on a quarterly basis,
whilst equally acting as the ‘touch point’ for the local Pilot Implementation Teams when established.

- The purpose of the Taskforce Oversight Group will be to;
  - Develop a detailed written pilot project initiation, implementation and evaluation plan, that clearly sets out the key objectives and outcomes in addition to the anticipated risks and associated mitigating actions;
  - Determine the pilot site selection criteria;
  - Decide on the pilot timeframe;
  - Decide on the membership of the local Pilot Implementation Teams to manage and co-ordinate the pilot at local hospital level and support their establishment;
  - To act as the ‘touch-point’ for the local Pilot Implementation Teams;
  - Set out clearly the communication and reporting processes between the Taskforce Oversight Group and, the Taskforce Steering Group and local Pilot Implementation Teams;
  - To provide regular (quarterly) progress reporting to the Taskforce Steering Group.

- The testing phase will be initiated subject to approval of the pilot project plan. The first step to be taken in the pilot testing phase will be the establishment of the local Pilot Implementation Teams comprising the programme lead DoH and programme lead ONMSD, in addition to the Director of Nursing, CEO, Director of Finance, Director of HR, Director of Quality/Patient Safety (as applicable), Clinical and Senior Nurse leaders, Nurse Practice Development and the staff associations. The purpose of these teams is to manage the day to day implementation and oversight of the pilot at local hospital/ward level. Once established the testing phase will be used to test the following;
  - To test the mechanisms for framework implementation at local level – e.g. collection of acuity and dependency measurement, Safety CLUE measurement. This will include the testing of the ICT infrastructure and data analysis processes developed for the collection and analysis of data as recommended by the framework;
The Way Forward

- To test the framework staffing recommendations against the current staffing profile, to determine the extent of the gap/overlap;
- To test the extent to which the framework recommendations impact on the stabilising the workforce through the conversion of agency/overtime/bank hours;
- To test the extent of the cost implications (savings and invest to save) through implementation of the framework recommendations for example through agency and overtime conversion;
- To test the extent to which short term replacement (i.e. sick leave with agency/overtime) is reduced/eliminated through implementation of the framework recommendations;
- To test the extent of the impact on patient and staff safety through analysis of the safety CLUES and staff experience surveys;
- To determine the resources required to develop, roll out and maintain the framework at service level for future potential national roll out;
- To test the impact of the framework implementation at hospital management team and hospital board level, e.g. ward to board/board to ward accountability and decisions on nurse staffing;
- To comprehensively identify the required education and training at initiation and ongoing;
- To test the extent to which the key risks identified at pilot planning phase impacted on pilot testing;
- To make recommendations on the further implementation of the framework, and on the critical factors required to ensure sustainability of the approach, dependent upon the success of the pilot;
- To summarise and outline in a report to the Taskforce on Staffing and Skill mix Steering Committee; the key findings, key outcomes, recommendations and next steps in the decision to pursue national roll-out of the framework.
5 Glossary, References and Appendices
## Glossary of Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed occupancy</td>
<td>The number of beds that are occupied over a 24 hour period.</td>
</tr>
<tr>
<td>Bed utilisation</td>
<td>The number of patients that are cared for in a ward over a 24 hour period, including the number of patients admitted, discharged and transferred in or out of the ward.</td>
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<tr>
<td>Core specialty/specialties</td>
<td>Designated clinical speciality or specialties within a ward. For example: core speciality for a ward may be neurosurgery.</td>
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<tr>
<td>HCA (Health Care Assistant)</td>
<td>Health Care Assistant is an unregistered healthcare worker, providing patient care under the direct guidance and supervision of a registered nurse.</td>
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<tr>
<td>Grade Mix</td>
<td>The mix of individual grades within the workforce. For example the mix of staff nurses, clinical nurse managers and healthcare assistants.</td>
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<tr>
<td>Skill Mix</td>
<td>The mix of education, training, skills and experience within the nursing care team that includes both registered nurses and healthcare assistants.</td>
</tr>
<tr>
<td>Nurse staffing</td>
<td>Nurse staffing in this framework refers to the nursing care team that is inclusive of both registered nurses and healthcare assistants unless otherwise specified.</td>
</tr>
<tr>
<td>Staffing requirements</td>
<td>This term is used to describe the nursing care team staff number and skill mix inclusive of both registered nurses and healthcare assistants required to provide care to patients on a ward.</td>
</tr>
<tr>
<td>Patient Acuity</td>
<td>Acuity is a term used to describe the severity of patient illness, and the degree of risk that their condition may deteriorate further.</td>
</tr>
<tr>
<td>Patient Dependency</td>
<td>This is described as the degree for which a patient is dependent upon support with his/her care needs for example: mobilisation, hygiene needs, eating and drinking etc.</td>
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</tbody>
</table>
### Person Centred Care
Person centred care supports people to make informed decisions about, and to successfully manage, their own health and care, able to make informed decisions and choose when to invite others to act on their behalf (The Health Foundation, 2014).

### Registered Nurse
A registered nurse is a nurse whose name is entered in the nurses division of the register of Nurses and Midwives by the Nursing and Midwifery Board of Ireland (NMBI 2014).

### Safety CLUEs
This acronym is used to describe Care Left Undone Events and also missed care events. Care left undone is described as patient care that was required but was not done. Missed care event is care that was required and was given but was delayed.

### Senior Nurse Manager
Senior Nurse Manager is used to describe nurse manager roles across acute hospitals such as those at Assistant Director of Nursing, Divisional Nurse Manager, or Directorate Nurse Manager level.

### Staffing

<table>
<thead>
<tr>
<th>Complement/Staffing</th>
<th>Establishment</th>
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</thead>
<tbody>
<tr>
<td>This is the total registered nurse and healthcare assistant staffing and skill mix requirement set/ funded for a clinical area to deliver care. For example: 24WTE (20WTE Nursing, 4WTE Health Care Assistant)</td>
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</tbody>
</table>

### Tipping Point
Tipping point is a term used in this document to describe the nurse staffing point at which there is an increased likelihood of care becoming unsafe.

### WTE
Whole Time Equivalent – Calculation of total staff delivering 39hrs per week.

### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>ABF</td>
<td>Activity Based Funding</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CORU</td>
<td>Health and Social Care Professionals Council</td>
</tr>
<tr>
<td>DPER</td>
<td>Department of Public Expenditure and Reform</td>
</tr>
<tr>
<td>NMBI</td>
<td>Nursing and Midwifery Board of Ireland</td>
</tr>
<tr>
<td>RCSI</td>
<td>Royal College of Surgeons in Ireland</td>
</tr>
</tbody>
</table>
References


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Health Information and Quality Authority (2012b) Report into the quality, safety and governance of care provided at the Adelaide and Meath Hospitals, Incorporating the National Children’s Hospital (AMNCH) for patients who require acute admission. Health Information and Quality Authority.


Nursing and Midwifery Board of Ireland (2014) Code of Professional Conduct and Ethics for Registered Nurses and Midwives. Nursing and Midwifery Board of Ireland.


### Appendix 1 – Taskforce Membership

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Siobhan O’Halloran</td>
<td>Chair</td>
<td>Department of Health</td>
</tr>
<tr>
<td>Dr. Philippa Ryan Withero</td>
<td>Deputy Chief Nursing Officer</td>
<td>Department of Health</td>
</tr>
<tr>
<td>Joan Regan</td>
<td>Principal Officer, Acute Hospitals</td>
<td>Department of Health</td>
</tr>
<tr>
<td>Gabrielle Jacob</td>
<td>Assistant Principal, Workforce Planning</td>
<td>Department of Health</td>
</tr>
<tr>
<td>Helen Byrne</td>
<td>Head of Planning and Performance, Acute Hospitals</td>
<td>Health Service Executive</td>
</tr>
<tr>
<td>John Delamere</td>
<td>Head of Corporate Employee Relations</td>
<td>Health Service Executive</td>
</tr>
<tr>
<td>Dr Michael Shannon</td>
<td>Director, Nursing and Midwifery Services</td>
<td>Health Service Executive</td>
</tr>
<tr>
<td>Mary Wynne</td>
<td>Area Director, ONMSD</td>
<td>Health Service Executive</td>
</tr>
<tr>
<td>Dr Garry Courtney</td>
<td>Clinical Lead, National Clinical Programme for Acute Medicine</td>
<td>Health Service Executive</td>
</tr>
<tr>
<td>Margaret Gleeson</td>
<td>Director of Nursing Lead, National Clinical Programme for Acute Medicine</td>
<td>Health Service Executive</td>
</tr>
<tr>
<td>Catherine Farrell</td>
<td>Programme Manager, National Clinical Programme for Orthopaedics (representing the National Clinical Programme for Surgery)</td>
<td>Health Service Executive</td>
</tr>
<tr>
<td>Avilene Casey</td>
<td>Director of Nursing</td>
<td>Irish Association of Directors of Nursing</td>
</tr>
<tr>
<td>Sheila Mc Guinness</td>
<td>Director of Nursing</td>
<td>Irish Association of Directors of Nursing</td>
</tr>
<tr>
<td>Kevin Figgis</td>
<td>Health Division</td>
<td>Services, Industrial, Professional and Technical Union</td>
</tr>
<tr>
<td>Liam Doran</td>
<td>General Secretary</td>
<td>Irish Nurses and Midwives Organisation</td>
</tr>
<tr>
<td>Prof. P. Anne Scott</td>
<td>Professor of Nursing</td>
<td>Dublin City University</td>
</tr>
<tr>
<td></td>
<td>Executive Dean, Faculty of Education, Health and Community (From 1st August 2014)</td>
<td>Liverpool John Moores University, Liverpool, UK</td>
</tr>
<tr>
<td>Prof. Jonathan Drennan</td>
<td>Professor of Healthcare Research</td>
<td>University of Southampton, UK.</td>
</tr>
</tbody>
</table>
Appendix 2  Acuity and Dependency Measurement Tools

There are many acuity and dependency measurement tools available for use across a wide variety of settings. What is of importance to note in their use, is the extent to which such tools are validated for use in the specific area they are intended. Two validated tools deemed suitable for use in acute care settings are specifically outlined below. These validated tools, whilst tested and used in jurisdictions outside of Ireland, are the most likely suitable validated tools to use in Ireland. It should however be noted that this is an emerging science, and further data on validation in regard to other tools may emerge over time.

The two tools outlined below are examples of those which have been in practice in the acute care setting. Therefore these tools are particularly suitable in the context of these settings. It is noteworthy that the first tool presented below, was recently endorsed by NICE for use across adult in-patient wards in acute hospitals.

- The Safer Nursing Care Tool, is a recently endorsed tool by NICE. This tool is organised into two parts; a) an acuity and dependency tool, and b) nurse sensitive indicators, incorporating staffing multipliers to determine the staffing requirement (NICE 2014). Whilst the staffing multipliers are tailored for use in the UK healthcare setting (for example with inbuilt leave and nurse/healthcare support worker mix) the acuity and dependency tool provides an efficient and effective way to capture patient acuity and dependency consistently.

- The RAFAELA tool is a system of patient classification comprised of three parts: (1) The Oulu Patient Classification (OPC) instrument; (2) a file on nurse resources, and (3) the Professional Assessment of Optimal Nursing Care Intensity Level (PAONCIL). Using part 1 & 2 the daily nursing care intensity, expressed as OPC points per nurse, can be calculated. The existing nursing care intensity can then be compared with the optimal by using the third instrument to determine the staffing requirement (Rauhala & Fegerstrom, 2004).
Whilst the above two tools are those more commonly used, this is an emerging science, and therefore as further validated tools emerge, these may be worthy of consideration. Thus, should organisations deem it necessary to use alternative tools, the choice of alternative tool should be made using a robust decision making process. To support the decision making process the following factors should be considered:

1. Is the purpose of the tool clearly stated?
2. Is the setting in which the tool has been designed for clearly stated?
3. Is the information on how the tool was developed clearly identified?
4. Are the authors of the tool clearly identified, along with information on their credentials and background?
5. Consider the currency/relevance of the tool, and whether it has been modified to reflect current developments in healthcare, by comparison to when the tool was originally designed and tested for use.
6. Has the tool been designed for use specifically for the clinical setting in which it is intended for use in your organisation?
7. Are there multiple versions of the tool for use in different clinical settings?
8. Is the information on the process of how to use the tool clear and easy to follow?
9. Is there robust research evidence endorsing the validity and reliability of the tool. i.e. has the tool been tested specifically for evidence of validity and reliability? Consider the testing of the tool specific to the clinical setting for use in your organisation.
10. Consider if there are any indicators either in the tool design itself, or in the research evidence supporting the testing of the tool.
11. Consider the resource implications in using the tool; for example the necessary expertise if the tool is complex; or the necessary investment if there are cost implications.
Appendix 3 – Tools to calculate Nursing Hours per Patient Day, Acuity and Dependency and Nurse Staffing Hours

The following information is designed to support the nursing team to gather and collate his/her data on Nursing Hours per Patient Day, patient acuity and dependency and nurse staffing hours, to inform safe nurse staffing decision making.

1. All data is collected over one month, twice yearly in Quarter 1 and Quarter 3 as a minimum.
2. All patient data is collected on every patient daily, including those patients whom are extra to the normal ward capacity. Ideally the data is to be collected at the same time each day: preferably 15.00pm.
3. The nurse staffing data is collected daily.
4. To routinely measure the average amount of nursing time required through a 24-period for each of the wards patients, the measurement should take into account the nursing care activities outlined in the Table overleaf. It will provide the basis for the calculation of the total and average nursing hours per patient to ensure nursing staffing establishments are derived from individual patient needs. *(Kindly reproduced with permission from NICE (2014) Safe staffing for nursing in adult inpatient wards in acute hospitals).* Each activity for an individual patient is allocated care minutes, which are then totalled for each patient and converted into hours. The total hours for the ward are then calculated with a calculated mean to determine the hours in conjunction with the Table in section 3 on page 61: calculating the nurse staffing establishment.
5. The data collection tool later in this section, provides the tool to capture the data in relation to the nursing hours per patient, along with additional information on the daily nurse staffing levels, individual patient’s acuity and dependency score and the identification of patients requiring 1-1 specials. All of this data is analysed over the monthly period to determine the average nursing hours per patient day, acuity and dependency profile in addition to the current nurse staffing establishment.
**Nursing hours per patient day Activities**

<table>
<thead>
<tr>
<th>Ongoing nursing activities that affect nurse staff requirements[^1]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Routine Nursing Care</strong></td>
</tr>
<tr>
<td><strong>Care planning (Plan)</strong></td>
</tr>
<tr>
<td><strong>Direct contact and communication (COMM)</strong></td>
</tr>
<tr>
<td><strong>Eating and drinking (EAT)</strong></td>
</tr>
<tr>
<td><strong>Fluid management (FLUID)</strong></td>
</tr>
<tr>
<td><strong>Management of equipment (EQUIP)</strong></td>
</tr>
<tr>
<td><strong>Medication (MEDS)</strong></td>
</tr>
<tr>
<td><strong>Mobilisation (MOVE)</strong></td>
</tr>
<tr>
<td><strong>Observations (OBS)</strong></td>
</tr>
<tr>
<td><strong>Oral care (ORAL)</strong></td>
</tr>
<tr>
<td><strong>Skin and pressure</strong></td>
</tr>
</tbody>
</table>

[^1]: Nursing Care Activities original table and contents reproduced with the express permission of NICE from their published Safe Staffing Guideline 1 (SG1) Safe staffing for nursing in adult inpatient wards in acute hospitals [https://www.nice.org.uk/guidance/sg1](https://www.nice.org.uk/guidance/sg1)
<table>
<thead>
<tr>
<th>area care (SKIN)</th>
<th>Toileting needs (ELIM)</th>
<th>Washing or bathing and dressing (CLEAN)</th>
<th>2 nursing staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>No assistance needed</td>
<td>Assistance needed</td>
<td>Minimal assistance with washing, dressing and grooming</td>
<td>Frequent assistance or 2 nursing staff needed</td>
</tr>
<tr>
<td>Assistance needed</td>
<td>Assistance with some hygiene needs by 1 member of the nursing staff</td>
<td>Assistance with all hygiene needs, or needing 2 nursing staff</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** these activities are only a guide and there may be other ongoing activities that could be considered.

### One-off nursing care activities that affect nursing staff requirements

<table>
<thead>
<tr>
<th>Routine Nursing Care</th>
<th>Additional Nursing Care Needs (approx. 20-30mins per activity)</th>
<th>Significant nursing care needs (approx. more than 30mins per activity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission (ADM)</td>
<td>Admission assessment</td>
<td>Complex admission assessment</td>
</tr>
<tr>
<td>Care after death (DYING)</td>
<td>Simple follow –up and transfer home</td>
<td>Arrangements after the death of a patient, including support for relatives and carers</td>
</tr>
<tr>
<td>Discharge planning (D/C)</td>
<td>Routine teaching about condition, routine post-op care</td>
<td>Co-ordination of different services</td>
</tr>
<tr>
<td>Patient and relative education and support (Ed)</td>
<td>Complex wound dressings (such as vacuum-assisted closure), tracheostomy care</td>
<td></td>
</tr>
<tr>
<td>Patient escorts (Esc)</td>
<td>Escorting a patient off a ward for 20-30 minutes</td>
<td>Escorting a patient off a ward for more than 30 minutes</td>
</tr>
<tr>
<td>Procedures and treatments (Proc)</td>
<td>Simple wound dressings, specimen collection</td>
<td>Catheterisation, nasogastric tube insertion, multiple wound dressings</td>
</tr>
</tbody>
</table>

**Note these activities are only a guide and there may be other one off activities that also could be considered.**
## Data Collection Tool

<table>
<thead>
<tr>
<th>Date</th>
<th>Start time of data collection</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ward Name</th>
<th>Finish time of data collection</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ward Size (bed Number)</th>
<th>Number of patients on the ward at time of data collection</th>
</tr>
</thead>
</table>

Indicate the Patient Number/s for those patients that have a 1-1 special

Indicate the Patient Number/s for those patients that have a cohort special (e.g. HCA for 6 patients)

### Number of staff on duty on the day.

If shift hours are not 12 hours, include the hours of duty per staff member. Include ALL staff (i.e. agency, bank etc, in addition to those on duty for specific patients e.g. 1-1 special).

<table>
<thead>
<tr>
<th>Include number (and hours if not working a 12 hour shift)</th>
<th>CNM 2</th>
<th>CNM1</th>
<th>RN</th>
<th>Nursing Intern</th>
<th>HCA / Multi-task Attendant</th>
<th>Clerical Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day Shift</td>
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<tr>
<td>Night Shift</td>
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</tbody>
</table>

Of the staff you have noted above as “on duty today” what number and grade of staff are additional to meet patient needs for example due to extra beds or 1-1 specials

Record care in minutes per patient activity over 24hour period. Please note if the patient requires a one-to-one special by including either 1-1 or if cohort include the number of patients in the cohort; for example 1-6 or 1-5 etc.

### Patient Activity Table

<table>
<thead>
<tr>
<th>Patient Number</th>
<th>Special Dep/Acuity Category</th>
<th>Plan</th>
<th>Comm</th>
<th>Eat</th>
<th>Fluid</th>
<th>Equip</th>
<th>Meds</th>
<th>Move</th>
<th>Obs</th>
<th>Oral</th>
<th>Skin</th>
<th>Elim</th>
<th>Clean</th>
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</table>

Note these are one-off activities
<table>
<thead>
<tr>
<th>Patient Number</th>
<th>Special Dep/Acuity Category</th>
<th>Plan</th>
<th>Comm</th>
<th>Eat</th>
<th>Fluid</th>
<th>Equip</th>
<th>Meds</th>
<th>Move</th>
<th>Obs</th>
<th>Oral</th>
<th>Skin</th>
<th>Elim</th>
<th>Clean</th>
<th>Adm</th>
<th>Dying</th>
<th>D/C</th>
<th>Ed</th>
<th>Esc</th>
<th>Proc</th>
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