Report of the Safe Staffing/ Healthy Workplaces Committee of Inquiry

JUNE 2006

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Foreword

New Zealand, like most Western countries, is facing the challenge of creating and maintaining safe staffing and healthy workplaces for nurses and midwives, in a sector faced with growing demand for services. This Report is an attempt to meet that challenge in a practical, comprehensive way, building on the best practice throughout New Zealand.

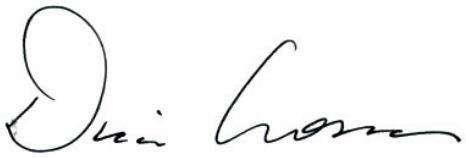
The Committee of Inquiry has identified the key components of safe staffing and healthy workplaces for nurses and midwives, and developed an Action Plan to bring about improvements in each of these areas. Most of the recommendations require a change in focus within the system, rather than a large injection of funds. Without action, New Zealand hospitals and other health units will continue to have staffing problems which adversely affect patient outcomes.

However, it is important that nurses, midwives and DHB management realise that this is a long-term process. The Report sets the scene by identifying the key elements that must be considered when moving towards safe staffing and healthy workplaces. Changing ways of thinking, ways of working, and ways of interacting takes time.

It is acknowledged that the tight timeframe for the Committee of Inquiry made it necessary to use less formal research methodologies than could have been employed over a longer timeframe.

I would like to thank all involved for their hard work and their expertise. It was obvious from the beginning that the Committee members were committed to finding solutions for these complex issues. I was impressed throughout the year with the willingness of each member to contribute and to work together to find a way forward.

We have an opportunity over the next few years to make New Zealand nurses safer at work. I ask that those implementing this plan do not waste the opportunity. Workplace reform of this nature, though supported by research and cost/benefit analysis, is rarely driven by such things. Visionary and determined leadership is essential.



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Executive Summary

The Safe Staffing/Healthy Workplaces Inquiry was set up in 2005, as a result of the national negotiations for a Multi Employer Collective Agreement (MECA) between the New Zealand Nurses Organisation (NZNO) and the District Health Boards (DHBs). This Report and its recommendations address safe staffing and healthy workplace issues of NZNO members (nurses, midwives and healthcare assistants) included in the coverage clause of the 2004/2006 National MECA.

The Report defines the essential components of safe staffing and healthy workplaces, outlines the evidence that supports their inclusion, lists the recommendations for achieving the Terms of Reference, and sets out an Action Plan for the next three years.

Background

The Safe Staffing/Healthy Workplaces Committee of Inquiry (SSCOI), made up of DHB and NZNO representatives, with Ministry of Health participation and an independent chair, met from June 2005 to May 2006.

The Report of the SSCOI represents a shared commitment by the NZNO and DHBs to work together to agree on:

- a mechanism for nurses, midwives and employers to respond immediately if workloads exceed the determined levels
- sustainable solutions to safe staffing issues, developed in a way that has the confidence of nurses and midwives.

The Committee acknowledges that there is an urgent need to address the way the nursing and midwifery workforce is currently managed and supported. While wholesale reform is not suggested, the actions proposed in this Report require urgent and sustained attention. The views of many nurses and midwives, combined with recent national and international research, paint a picture of a workforce under significant pressure.

While mandated ratios can provide a base level of staffing, it is agreed that this is a blunt tool that fails to account for the complexity of the healthcare system. The Committee proposes more comprehensive actions to address the elements that contribute to safe staffing and healthy workplaces.

This Report defines the essential elements of safe staffing and healthy workplaces, based on evidence cited in the literature reviewed and in national forums. The Committee supports these conclusions, and makes recommendations for achieving the inquiry's aims. One of the recommendations is to establish a Safe Staffing/Healthy Workplaces Unit (SSHW Unit) within District Health Boards New Zealand (DHBNZ). This key strategy seeks to facilitate and co-ordinate the dissemination of best practice, to support change, and to evaluate District Health Boards' progress towards safe staffing and healthy workplace outcomes.

Elements of safe staffing/healthy workplaces

This Report identifies the Elements that are necessary to achieve safe nursing and midwifery staffing for an effective healthcare environment. Collectively, these Elements describe an appropriately resourced, well organised, healthy, care delivery environment in which patients achieve the planned outcomes. The Elements are interdependent: one cannot be prioritised over another without having a detrimental effect on safe staffing.

These Elements are:

- The requirement for nursing and midwifery care
- The cultural environment
- Creating and sustaining quality and safety
- Authority and leadership in nursing and midwifery
- Acquiring and using knowledge and skills
- The wider team
- The physical environment, technology, equipment and work design.

The key aspects of these Elements are as follows:

The requirement for nursing and midwifery care

- Meeting patients' requirements for nursing and midwifery care is the first responsibility of nursing and midwifery, and requires the exercise of expert nursing and midwifery judgement.
- Appropriate staffing will meet patients' care requirements, achieve good health outcomes for patients, and ensure that workplaces are healthy and satisfying for staff.
- Identifying and delivering the appropriate staffing levels requires an effective nursing and midwifery staffing system - one that is able to deliver the right number of nurses or midwives with the right competencies to provide the right care in the right place at the right time to every patient admitted to the service.
- Effective staffing systems require the collection and use of information to inform the reliable forecasting and management of patients' requirements for nursing and midwifery care, as well as effective auditing and assessment.
- This process must include expert nursing and midwifery judgement.
- Measurement of effectiveness needs to include the assessment of staffing data against actual patient-generated workload and quality indicators, including patient satisfaction.
- Existing examples of effective staffing systems can be used to build a more nationally consistent approach.

The cultural environment

- A motivated, satisfied workforce is key to achieving organisational success.
- Two linked approaches offer significant opportunity to improve some of the least successful aspects of the current health system. These are:
  - sector-wide engagement aimed explicitly at addressing organisational and workplace culture, and

  - sending a strong signal to nurses and midwives that the key areas identified in this Report will be addressed.
- The actions required, while substantial, have more to do with reframing attitudes and ways of working than with widespread reform that requires large injections of resources.
- In order to be successful, "ground-led, top-fed" approaches will be necessary, based more on flexible, principles-based strategies than on prescriptive rules.
  - Making gains in this area has the potential to take the pressure off more "resource hungry" strategies, such as substantial increases in staff numbers.

Creating and sustaining quality and safety

- Many front-line nurses and midwives report that they do not feel safe in their current work environments.
- Fundamentally, healthcare organisations exist to deliver quality, safe healthcare to patients/clients.
- Quality and safety relate both to the patient/client and to the entire environment in which care takes place, including staff.
- Quality and safety are part of a continuum, with optimum outcomes at one end and doing no harm at the other.
- Quality and safety activities are work, and therefore need to be treated as work, and to be factored into budgets and non-clinical time.
- Organisations that achieve the highest levels of quality and safety make these elements pervasive, visible, and valued across the entire organisation.
- Progress in this area is feasible if there is commitment to evolving and reframing current systems, and to positioning quality and safety at the highest levels of organisational attention. Without this approach, other competing priorities will inevitably continue to be given precedence.

Authority and leadership in nursing and midwifery

- Nurses and midwives understand the business of providing care 24 hours a day, seven days a week, and how organisations need to work in order to deliver quality patient outcomes.
- Nurses and midwives having the authority to make appropriate and timely decisions improves patient satisfaction as well as their own, and improves service productivity.
- Appropriate authority vested in nursing and midwifery roles is critical to the effectiveness of those roles and to organisational functioning.
- The system needs to provide nurses and midwives with the authority and support to make decisions at the point nearest to where it is necessary.
- The need to make optimum use of scarce health resources demands that nurse leaders design and manage safe, supportive systems that make appropriate use of the full range of nursing personnel.
- In many cases, nurses and midwives already have the opportunity to assert legitimate authority, and should be encouraged to do so.

Acquiring and using knowledge and skills

- Acquiring and using the knowledge and skills to support nursing and midwifery practice is part of nursing and midwifery work, and requires protected time and dedicated resources.
- The workplace is the principal place of learning and education, and future efforts should maximise opportunities for acquiring knowledge and skill at the point of care.
- External/tertiary learning opportunities are key to advancing practice and the overall body of knowledge of nursing and midwifery.
- Co-ordination and collaboration are required between health and education providers to ensure that practice drives education, so that nurses and midwives are "fit for the purpose".
- Managers and their teams need to develop the competencies to support more flexible ways of working, and good team functioning.

The wider team

- Good patient outcomes are built from the contributions of the wider team.
- The nursing and midwifery staffing model must explicitly take into account the mix, skill sets and availability of the wider team.
- Nurses and midwives provide the continuity and consistency in the system, and this aspect of their work requires time and recognition within the staffing model.
- Defining what has to be done by nurses or midwives and what could or should be done by others has the potential to free up nurses and midwives to do their work.
- Role extension needs to be supported by appropriate training, supervision and authority.
- To achieve the best outcomes, the wider team needs opportunities to work and plan together in order to ensure a better fit between the various components of care. This, in turn, will lead to better outcomes for patients.

The physical environment, technology, equipment and work design

- The nature and quality of the physical environment, technology, equipment and work design have a profound impact on nursing and midwifery workloads, and therefore on the safety and effectiveness of healthcare delivery.
- The potential for well designed and well resourced environments to support maximum efficiency should not be under-estimated.
- Involving nurses and midwives in key decisions about their physical environment, technology, equipment and work design is likely to result in environments that support nurses and midwives to work more effectively.
- The expected benefits of new technology may not occur if the technology is not designed to fit with the rest of the work environment.
- Employee participation in this area is vital for the success of workplace health and safety, which is supported by legislation and national standards.

Action Plan and Recommendations

Making it happen (0-3 months)

1 The Minister of Health is invited to endorse the work of the Committee and to signal to the parties (DHBs and NZNO) and the Ministry of Health his support for implementing the Recommendations and Action Plan (0-3 months).

2 The Chief Executives will establish a Safe Staffing/Healthy Workplaces Unit (SSHW Unit) dedicated to facilitating the implementation of the Action Plan (0-6 months):

- The SSHW Unit will be situated in DHBNZ.
- An advisory board of Chief Executives and NZNO representatives will direct and evaluate the operation of the SSHW Unit.
- The advisory board will review the need for the SSHW Unit to continue, following evaluation by June 2009.

3 The parties will approach the Minister of Health to fund the establishment and operation of the SSHW Unit.

Positive change now (0-9 months)

4. DHBs will ensure that there is adequate access to clinical leadership 24 hours a day, seven days a week, at all levels of the organisation. This means that:

- There is a minimum of one nurse line manager/team leader for a team, unit or service.
- Nurses and midwives have direct access to clinical advice and support during the hours of operation.
- There is an assigned role to co-ordinate and manage workflow and provide clinical support for each ward, unit or service 24 hours a day, seven days a week. Generally, for most acute areas, this role would involve a reduced or no assigned case-load.

5(i) When a nurse or midwife providing direct care considers their workload to have reached the limits of safe practice, they will immediately utilise current (and recommended) processes to preserve standards of care while meeting throughput requirements.

5(ii) DHBs and NZNO will develop agreed processes to support nurses and midwives and to guide managers in the event that staffing is deemed unsafe, and to monitor and evaluate their effectiveness, including an agreed escalation plan developed and implemented to mitigate or respond to unsafe staffing levels.

5(iii) When a nurse or midwife considers they have reached the limits of safe practice, they will be supported to resolve the situation as follows:

- The Nurse or Midwifery Manager or Duty Manager will be immediately informed of the situation by the nurse or midwife.
- The nurse or midwife will not be required to take on additional workload until strategies have been implemented to address the immediate workload issues (e.g. the redeployment of staff or patients), notwithstanding any immediate duty-of-care requirements.

5(iv) If the process outlined above does not resolve the situation, the following steps will be taken:

- The Nurse or Midwifery Manager or Duty Manager will immediately advise the Director of Nursing (DoN) or, if the DoN is not available, the Manager responsible for the hospital at that time. Direct assistance will then be given from this level in the organisation, and the event reported to the Chief Executive by the DoN as soon as is reasonably possible.

5(v) Following every instance of unsafe staffing being notified:

- The Nurse or Midwifery Manager or Duty Manager will ensure that a report is provided to the DoN via the DHB's Incident Reporting System.
- The DoN will report to the Chief Executive, including outcomes, analysis, and actions taken for future prevention.
- The DoN will report all unsafe staffing events monthly to the Clinical Board or its equivalent.

6. All DHBs will have a leadership position for nurses and, where appropriate, a separate position for midwives. These leaders will report to the Chief Executive, and have decision-making responsibility for nursing and midwifery care.

7. DHBs will support a "no cancellation" policy for any approved training and education leave, unless at least two weeks' notice is given so that all possible alternatives to cancellation can be explored. Training will be scheduled to facilitate staff attendance.

Sustainable change (0-2 years)

8. DHBs will utilise the Elements (see Chapter 4) in their budgeting and forecasting in 2007/08, and in planning for the 2008/09 District Annual Plan.

9. DHB management and staff will work specifically on the following:

- developing strategies to improve the quality of the workplace culture
- demonstrating in organisational structures and processes the way in which nursing and midwifery authority and participation in decision-making are aligned to levels of responsibility and accountability

- establishing quality and safety as a principal responsibility of both management and individual nurses and midwives, through shared quality programmes
- working towards generic competencies to enhance staff movement between DHBs
- making provision for education and training to be recognised as work and integrated into everyday activity, requiring protected time and dedicated resources
- nurses and midwives having access to coaching and training regarding quality improvement and systems safety generally
- using all sources of quality and safety data, whether patient- or staff-related, in integrated ways to inform the whole system
- ensuring responsiveness and timeliness of response to identified quality and safety issues, using Incident Reporting Systems
- the DoN reporting on all incidents relating to nurses or midwives and patients to the Clinical Board on a regular basis
- where there are changes in the service (e.g. service reconfiguration, new technology or equipment, or process review), nurses and midwives being involved in the development of proposals for change and management of that change, with reference to the Management of Change clause in the MECA
- contributing to the work of the SSHW Unit
- implementing the work of the SSHW Unit as this becomes available.

10 Chief Executives and the National Capital Committee will ensure that there is nursing and midwifery involvement in the planning of capital projects.

11 Chief Executives of DHBs will ensure the early involvement of nurses and midwives in workplace redesign or refurbishment.

12 The SSHW Unit will facilitate the development and implementation of:

- best practice guidelines for patient forecasting and patient workload management systems, for roll-out in all DHBs where systems do not meet these guidelines
- a "toolkit" of best practice in nursing and midwifery staffing systems and the management of these systems, including models for providing direct clinical support
- nursing and midwifery leadership and management competencies, which will guide the development of job descriptions, postgraduate and industry-specific training programmes, and on-the-job education and development
- nurse-sensitive, patient-outcome data for inclusion in nationally collected data sets, and DHB performance monitoring, to ascertain the impact of changes in the nursing and midwifery workforce and to benchmark patient outcomes within provider arms and across DHBs
- nationally reportable information on the nursing and midwifery workforce (e.g. turnover, sick leave, qualifications, age, distribution) to monitor the health and status of the current and future workforce, in order to track trends, modify strategies and predict future requirements
- processes to audit the DHBs' progress in implementing the Action Plan

- strategies that DHBs will utilise to work with nurses, midwives and others to assess a preferred culture, and to develop and maintain that culture.

13 DHBs and NZNO, in collaboration with tertiary education providers, the Clinical Training Agency and Regulatory Authorities, will develop a national framework to support post-entry education and clinical teaching in nursing and midwifery. The framework will quantify the direct and indirect costs and resource requirements to support appropriate provision within organisational budgets.

Evaluation and monitoring (0-3 years)

14 The DHBs will report six-monthly on progress against the Action Plan, to be collated by the SSHW Unit.

15 Using the processes developed by the SSHW Unit, formal audit will take place of the progress made by all DHBs, individually and collectively, by 30 June 2008, with a report to the parties, the Ministry of Health and the Minister of Health.

CHAPTER 2

Introduction

The Safe Staffing/Healthy Workplaces Inquiry was set up in 2005, as a result of the national negotiations for a Multi Employer Collective Agreement (MECA) between the New Zealand Nurses Organisation (NZNO) and the District Health Boards (DHBs). This Report and its recommendations address safe staffing and healthy workplace issues of NZNO members (nurses, midwives and healthcare assistants) included in the coverage clause of the 2004/2006 National MECA.

A summary of major changes in the health system and nursing profession since the 1980s, giving the historical context for the Inquiry, is provided in Appendix I.

Resolving workload pressures was a key priority for NZNO during the MECA negotiations. NZNO members identified this as the second most important issue (after increased pay) for retaining the nursing workforce.

New Zealand is not alone in facing issues of safe staffing and healthy workplaces. The same issues have been identified as priorities internationally.

The MECA settlement established the Committee of Inquiry as a way to explore these issues and make recommendations. Because there was no simple solution, and a broader approach was needed, the issues were taken out of the industrial context and into the Safe Staffing/ Healthy Workplaces inquiry process.

This inquiry process was unique. There had never been a joint inquiry into safe staffing and healthy workplaces before. The Committee of Inquiry was made up of DHB and NZNO representatives, with Ministry of Health participation (see Appendix III). It had an independent chair, and met from April 2005 to May 2006. Rather than focusing on barriers to safe staffing and healthy workplaces, the Committee searched instead for practical solutions and effective ways of implementing them (see Chapter 3: Process).

The Terms of Reference (see Appendix II) required the Committee to:

- agree on sustainable solutions to identified issues
- ensure that evidence-based best practice is used in all DHBs
- address the issues raised in the MECA process, in a way that has the confidence of nurses and midwives, and provides a mechanism for nurses and midwives to respond immediately if workloads exceed the determined levels.

The Terms of Reference recognise that achieving safe staffing and healthy workplaces requires more than nurse or midwife to patient ratios. Matching nursing and midwifery workloads to patient needs is important, but is only one element of safe and healthy staffing environments. A number of other elements are essential to achieving a sustainable solution. The Report defines and discusses these Elements, summarises the evidence that supports their inclusion, and makes recommendations for achieving the aims set out in the Terms of Reference.

The parties (NZNO and the DHBs) are confident that the implementation of these recommendations will, by making a real difference to the health and safety of the nursing and midwifery workforce, also markedly improve patient safety and outcomes.

To avoid doubt, in this Report the term "DHB" refers to District Health Boards operating in their roles as providers of health and disability services, rather than as funders of services.

CHAPTER 3

Process

Collectively, the members of the SSCOI had considerable length, breadth and depth of experience in clinical practice, human resources and health management. However, raising consciousness and developing shared understandings of the issues, seeking validation and verification of the content of the Report, and gaining the confidence and support of the key stakeholders were all seen as important parts of the process leading to the conclusions and recommendations set out in the final Report. The SSCOI therefore decided to communicate widely with stakeholders.

Two groups of key stakeholders were identified. The primary group comprised the parties to the MECA: the nurses and midwives included in the agreement, and the DHB Chief Executives as well as other DHB staff. All of these people are affected by the issues central to this Report. The second group comprised those who contributed to the regulation, monitoring, facilitating or funding of the nursing and midwifery workforce and/or safe, healthy DHB workplaces.

Rather than starting with a blank slate by asking stakeholders what they considered were the key ingredients for safe staffing and healthy workplaces, the SSCOI chose to develop a first draft of these components, to seek feedback, and to make refinements accordingly.

Specific advice was sought from a number of people. These included Associate Professor Mary Finlayson of the University of Auckland, whose 2001 and 2004 studies of the New Zealand hospital nursing workforce provided an inter-DHB snapshot of some of the key elements relevant to the Report; Health and Disability Commissioner Ron Patterson, with his knowledge of and interest in patient safety; Professor Ken Walsh, of Waikato DHB and Victoria University of Wellington, whose work with solution-focused outcomes challenged our thinking about the process; and Professor James Buchan, of Queen Margaret University College, Edinburgh, an international expert on health workforce research, with a specific focus on nursing.

The extensive literature on safe staffing and healthy workplaces shows a compelling association between contextual factors (staffing levels, skills mix, organisational design and milieu, and workload) and patient and staff outcomes (length of stay, patient incidents, mortality rates, patient and nurse satisfaction, and nurse retention rates).

A review of the national and international literature, together with intensive discussion, informed the development of the key components for safe staffing and healthy workplaces, and provided the building blocks for consultation with stakeholders. The latter involved presentations to the 21 DHBs, a briefing presentation to invited relevant groups,[i] and opportunistic meetings with national nursing and health sector groups.[ii]

i These comprised the Health Workforce Advisory Committee, Registered Medical Officers, working party DHBs, ACC, Public Service Association, Mental Health Foundation, Health and Disability Commission, Nursing Council of New Zealand, Midwifery Council, and Ministry of Health.

ii These included Directors of Nursing, Chief Medical Advisors, Chief Financial Officers, and HR Managers.

One NZNO and one DHB representative from the Committee presented the work and sought feedback at each stakeholder group meeting. All members of the Committee shared this responsibility. The PowerPoint presentation was made available electronically, and wide dissemination was encouraged. Opportunity for feedback was also offered via e-mail. More than 800 people attended a total of 40 meetings. Fifteen submissions were received, in addition to feedback at the formal meetings.

The feedback was collated and analysed, and formed the basis for developing the themes of the Report in their final form. There was agreement from the round of DHB consultations that the seven original Elements (Safe Staffing, Other Key People, Leadership and Authority, Physical Environment, Cultural Environment, Technology/Equipment, Education and Training) were essential. A further element, Quality Standards and Improvement, was added.

The validity of selecting these areas as the critical elements was confirmed during the Committee's DHB site visits, when staff gave feedback which endorsed this approach. However, it was acknowledged that each DHB, and each team within that DHB, would assess the relative significance of the elements differently. For example, for staff working in a unit that has recently had a new facility provided, the physical environment is unlikely to top their list of priorities. They may instead be struggling with the changes in team structure and culture that occurred as part of the physical redevelopment, and need support in this area. Another team may be working in an excellent team culture with great leadership, but simply not have enough people to get the work done.

The Committee maintained regular communication with the three major parties to the process: the NZNO, the DHBs and the Ministry of Health. Committee members met regularly with, and reported on progress to, the Minister of Health, the NZNO Board of Directors and the DHB Chief Executives, as well as providing progress newsletters to NZNO and DHB members.

The literature, the continuing communication with primary stakeholders, and the dialogue with invited contributors and other stakeholders have informed and strengthened the conceptual understanding that underpins the themes and recommendations of this Report.

Limitations

The Committee has identified that there are still some limitations associated with the COI process outlined above. These include:

- The literature considered by the Committee was largely based on nursing workforce research. This may affect the generalisability of some of the findings.
- The Report has focused on hospital/inpatient services, and may not reflect all the concerns experienced by nurses and midwives working in community, residential, and non-government organisation healthcare settings.
- While Maori nurses may have similar perceptions of safe staffing and workloads to their Pakeha colleagues, their concerns regarding cultural safe practice or exposure to discrimination in the workplace may be of higher priority for them.
- Throughout this Report, the term "patient" is used to describe the recipient of healthcare, and may not reflect the need for nursing or midwifery care in a variety of settings.

- All references to midwives in this document relate specifically to midwives employed by the DHBs, and not to privately employed midwives.
- The Report does not make specific recommendations to address supply shortages in nursing and midwifery. It is expected that addressing workload and staffing issues – factors that contribute to staff dissatisfaction and decisions to leave – may improve retention rates and reduce turnover.

CHAPTER 4

Elements of Safe Staffing/Healthy Workplaces

The process outlined in the previous chapter enabled the Committee to refine its original selection to produce the following essential Elements of safe staffing and healthy workplaces. Not one of these Elements can be neglected without having a detrimental effect on the others.

- The requirement for nursing and midwifery care
- The cultural environment
- Creating and sustaining quality and safety
- Authority and leadership in nursing and midwifery
- Acquiring and using knowledge and skills
- The wider team
- The physical environment, technology, equipment and work design.

What this chapter aims to provide is a collective overview of what *should* be happening. Organisations, teams or units and individuals can then use this information to identify the areas requiring attention. The strength of this approach is that it will enable attention to be targeted at specific areas, rather than the more traditional approach of throwing poorly targeted resources or extra personnel at the problem, and then wondering why the problem does not go away.

The approach taken in this chapter has been first to "name" each of the Elements (that is, to define what we are talking about), then to identify why it is important, what evidence we have to support this view, what we know about what is currently happening in New Zealand, what it would look like if we were achieving in this area, and how that achievement could be measured. Factors that could support or hinder progress are then identified, and the key messages summarised.

a. The requirement for nursing and midwifery care

The requirement for nursing and midwifery care refers to the work of nurses and midwives that enables patients admitted to health services to be cared for and discharged safely. This requirement for care is generated by the patient, and assessed by the nurse or midwife in conjunction with the patient.

Meeting this requirement is the first responsibility of nursing and midwifery. It involves having the right number of nurses or midwives with the right competencies to deliver the right care in the right place at the right time. Achieving this efficiently and consistently requires an effective nursing and midwifery staffing system.

Why is this important?

If patient requirements for care are not met adequately, patients will not be satisfied, and may suffer adverse health outcomes that are avoidable. These may range from relatively minor health complications through to permanent disability, or even death.

When health services fail to meet patient requirements for care, they fail in their fundamental obligation to patients, resulting in damage not only to the individual's sense of safety and well-being, but also to the community that is being served.

When patients' needs cannot be met, nurses and midwives tend to feel dissatisfied with their jobs, consider that their professional credibility is called into question, and suffer undue stress. This affects their occupational health and their ability to care for patients. Nurses and midwives may be called to account for failure to maintain professional standards of practice. Any avoidable failure also contributes to recruitment and retention problems in the nursing and midwifery workforces.

These consequences can be avoided by carefully matching nursing and midwifery resources to identified patient care requirements.

What is our evidence to support this view?

Both the experience of nurses and the nursing literature consistently demonstrate the importance of nurse staffing levels for optimum patient health outcomes.

A recent review of 22 studies found that these "strongly suggest that higher nurse staffing and richer skill mix (especially of registered nurses) are associated with improved patient outcomes".[1]

Frequent anecdotal reports show that both new and experienced nursing and midwifery staff are leaving clinical settings to avoid the stress of consistently failing to meet patient requirements for care, due to work overload. In a 2004 survey, 50% of New Zealand nurses signalled their intention to leave nursing.[2] These reports are supported by the literature. For example, a review examining the relationship between nurse staffing levels and the well-being of nurses found that inadequate nurse staffing levels are associated with burnout and job dissatisfaction.[3] The nursing literature also reports the relationship between high rates of turnover and adverse patient outcomes.[4]

It has been shown that expert nursing judgement is the key component in establishing patient need.[5] While systems can support this expert judgement, they can never replace it. Such systems offer an important adjunct because they enable data collection, therefore enhancing future planning.

What do we know about what is currently happening here?

In a recent national survey of New Zealand nurses, 40% reported that there were not enough staff to get the work done.[6] Staff who attended the SSCOI site visits consistently reported frequent instances of poor matching of patient requirements to actual nurse or midwife staffing (i.e., under- or over-staffing).

The paucity of available information makes it impossible to evaluate quantitatively how effectively DHBs are meeting patient requirements for nursing and midwifery care. This is a serious matter, for three reasons:

1. Meeting patient requirements for care is the fundamental purpose of DHBs.
2. Performance in this area determines patient satisfaction and patient outcomes, along with staff satisfaction and well-being.

3. DHBs invest heavily in providing nursing and midwifery services, and it is essential to understand the return, in terms of health outcomes, that patients are gaining from this investment.

While staff numbers are generally closely monitored for their financial impact, the data is not always assessed against actual patient-generated workload or quality indicators. Patient satisfaction and complaints resolution are monitored and compared across DHBs, but there do not appear to be any instances of patient satisfaction being objectively evaluated against staffing levels.

What would we see if we were achieving in this area?

If health services consistently provided nursing and midwifery services capable of meeting patient care requirements, we would expect to see the following changes.

Patients:

- Increased patient satisfaction and improved outcomes.

Nurses and midwives:

- Improving job satisfaction and general health and well-being
- Rising rates of retention and recruitment, with a consequent reduction in staff turnover and attendant costs
- Declining rates of sick leave and workplace injury
- Strengthening staff trust in the capability of services in which they are employed, along with commitment and goodwill towards their employers.

Organisations:

- The information needed to provide reliable forecasts of patient-generated workload being obtained and used effectively
- This information being used to manage the workload, so that workload variability is reduced to a minimum
- The expert judgement of nurses and midwives being used appropriately to plan staffing and to configure other resources as required
- The ability of the nursing and midwifery services to provide the right numbers and skill mix of staff at all times for optimal care delivery being maximised
- Attention to optimising care delivery balancing the focus on financial outcomes
- The productivity, quality and effectiveness of health services improving.

How could we measure it?

Data needs to be collected at a national level to be used within DHBs as a benchmark across the country. Continuous and detailed measurement and assessment against industry best practice would involve:

- comparing patient satisfaction and health outcome audits against established standards of best practice
- monitoring actual patient admissions and length of stay within inpatient and community-based services
- matching actual data against forecast data

- monitoring and assessing actual staff numbers and skill mix for consistency in matching planned workforce data, as determined by the nurse or midwife in charge of the work area or service
- monitoring the satisfaction, general health and well-being of nurses and midwives
- monitoring the turnover of nursing and midwifery staff, and the time taken to fill vacancies
- monitoring the sick leave and workplace injury rates of nursing and midwifery staff.

What will support progress in this area?

Work is already being done in a number of DHBs to forecast and actively manage patient-generated workloads. Some DHBs have been more successful than others in ensuring they have nursing and midwifery services in place which are able to meet patient requirements for care effectively and consistently, without undue excess capacity. Some have also had more success than others in achieving "workload smoothing", which involves reducing the variability in patient admissions. Analysing how they have done this would help to establish the most effective ways of achieving improved outcomes throughout all services and in all DHBs.

As progress is made in this area, the gains in outcomes for patients and in service productivity will enable further investment to enhance these gains. Progress will also be supported by growing public confidence in the ability of health services to deliver good quality care more consistently.

What might hinder progress in this area?

Improvement in this area will require the sustained commitment and good will of all parties. In the absence of reliable data to evaluate the overall performance of DHBs in meeting patient requirements for nursing and midwifery care, it may seem appealing to one or more of the parties to abandon the systematic process improvements advocated here in favour of cruder approaches, such as centrally determined nurse/patient ratios, or centrally determined nurse/patient-generated income.

KEY MESSAGES

- Meeting patients' requirements for nursing and midwifery care is the first responsibility of nursing and midwifery, and requires the exercise of expert nursing and midwifery judgement.
- Appropriate staffing will meet patients' care requirements, achieve good health outcomes for patients, and ensure that workplaces are healthy and satisfying for staff.
- Identifying and delivering the appropriate staffing levels requires an effective nursing and midwifery staffing system – one that is able to deliver the right number of nurses or midwives with the right competencies to provide the right care in the right place at the right time to every patient admitted to the service.
- Effective staffing systems require the collection and use of information to inform reliable forecasting and management of patients' requirements for nursing and midwifery care, as well as effective auditing and assessment.
- This process must include expert nursing and midwifery judgement.

- Measurement of effectiveness needs to include assessing staffing data against actual patient-generated workload and quality indicators, including patient satisfaction.
- Existing examples of effective staffing systems can be used to build a more nationally consistent approach.

b. The cultural environment

The cultural environment refers to the relationships that exist between an organisation and its staff, together with its "climate" and ways of working. It encompasses such concepts as respect, trust, autonomy, accountability and values, and gives attention to well-being, safety, work-meaning and job satisfaction.

Most organisations have an "espoused" culture, expressed in vision and values statements, which provide an important public statement of commitment and purpose: "Who we are, what we seek to achieve, and how we want to be". How successfully this vision is taken up throughout the organisation can be seen by looking at the "lived" culture: the way in which work teams and units interpret the organisational culture in the context of their workplace reality.

A successful organisational or workplace culture is one where there is a clear and shared purpose, and where staff are able to engage successfully with that purpose, in an environment that honours the individuality and contribution of each and every person.

The preferred (or required) culture is strongly influenced by the nature of the work in which the organisation and the work team are involved. For nurses and midwives, there is a preference for a workplace where quality (good patient outcomes) and safety (not doing harm) are dominant features of the culture. This is congruent with the work of the nurses and midwives, and with the business of healthcare.

Why is this important?

Developing and sustaining an environment where nurses and midwives can thrive and be successful in their work is a primary imperative, for two reasons.

First, nurses and midwives hold a privileged place in healthcare, as their work involves a direct and intimate interface with patients/clients. The nature and quality of the cultural environment in which nurses and midwives practise has been shown to have a direct correlation with patient/client experiences and outcomes.

Second, nurses and midwives are entitled as employees to work in environments that promote human rights, such as the right to dignity, respect, autonomy, well-being and safety. It should be noted that the concept of cultural safety – a competency requirement for all nurses – is a key requirement within the work environment.

To be successful, nurses and midwives require a culture where the factors that guide relationships between people in the workplace, particularly those that involve power, influence and control, are given appropriate attention. Where there is a significant disconnection between the stated organisational culture and the reality experienced by the workforce,

the consequences include a loss of trust, a perceived loss of overall control, a breakdown in relationships and, ultimately, a reduction in organisational efficacy.

If nurses and midwives are working in an organisation with coherent management practices, see themselves as present in sufficient numbers and expertise, and are enabled to work in ways that support quality, safe healthcare, then the organisational culture is a successful one.

What is our evidence to support this view?

The central question for the health sector is not, "Is there a relationship between organisational culture and achievement of organisational goals?", but rather, "Why has the link between organisational culture and the achievement of organisational goals not been given more serious attention?"

In the health sector, there is concern that attempts to increase and improve services by loading more resources into workplaces often fail to secure the expected benefits. A growing body of evidence points to the importance and value of positive organisational and workplace culture, as having a direct impact on the quality of patient outcomes, the minimising of adverse events, and the retention of nurses and midwives.[7] The type of workplace culture appears to be an accurate predictor of nurses' intention to leave their workplace or profession. Recent Australian research found that 50% of nurses working in a "culture of blame" were at risk of leaving, compared with just 28% of those working in a "culture of success".[8]

Evidence to support the importance of the cultural environment can be found in all the other Elements discussed in this chapter. These Elements all have a direct impact on the quality of work life for nurses and midwives, and therefore on their perceptions of how successful they are, and how well their organisation is achieving its stated purpose.

What do we know about what is currently happening here?

It is not suggested that there is a negative cultural environment in all DHBs. However, anecdotal evidence gathered during the SSCOI site visits showed worrying levels of dissatisfaction among nurses and midwives with aspects of the cultural environment. Commonly cited areas of concern included: working in cultures that are overly controlling and rigid; reduced job satisfaction, as a result of being unable to deliver optimal care to patients/clients; insufficient control (autonomy) over key areas of practice; a disconnection between clinicians and management; not feeling valued or respected by the organisation; and a perception of carrying a disproportionate burden of organisational risk.

> We're in a "Catch 22" situation – if we're fully staffed we take on more patients and as a result we become overstretched – resulting in tired stressed nurses. (Comment during SSCOI site visit)

Another example is the feeling of abandonment reported by many nurses and midwives regarding "out of hours" support, when organisational resources are often reduced substantially, yet the work demand and need for leadership and support do not lessen significantly.

What would we see if we were achieving in this area?

The Health Workforce Advisory Committee (HWAC), established to provide advice to the Minister of Health, has also recognised the importance of healthy work environments. National guidelines produced by the HWAC identify high-level principles that underpin an ideal workplace culture. These include:

- having the health and well-being of the person as its primary objective
- valuing employees and promoting trust between staff
- people working collaboratively as teams and forming constructive relationships to achieve shared objectives
- enabling effective and open multi-level communication channels
- encouraging and supporting change and innovation, fostering creativity and promoting continuous learning
- fostering a risk management approach that supports staff and is not simply risk aversion
- having a culturally aware environment that is supportive of, and responsive to, the increasing diversity of the workforce, and recognises and adapts to changing work-life balance.[9]

In a workplace where these principles were acted upon, we would expect to see:

Patients/clients:

- experiencing themselves as the centre of care, and able to participate in the purpose of providing quality healthcare
- receiving coherent and consistent care
- having greater confidence in making decisions about their care.

Nurses and midwives:

- engaging wholeheartedly and successfully in the purpose of providing high quality healthcare
- expressing confidence in their practice and in the way they are regarded and valued by their organisation
- asserting legitimate authority and accountability in the interests of safe, quality practice
- embracing innovation, change and reflection in highly challenging and supportive environments
- displaying flexibility in work and responsiveness to meeting patients' needs for care
- visible in decision-making in all aspects of the work and at all levels of the organisation
- expressing a shared identity at work ("we", not "they")
- working in environments that are free from horizontal or vertical workplace conflict (bullying or abusive behaviour)
- benefiting from cultures of safety which embrace both patients and staff (see the Quality and Safety section, below)
- valuing self-care, and acting in ways that promote personal well-being.

Organisations:

- enjoying reciprocity of respect and trust between staff and management
- supporting clinical nursing and midwifery leaders to model positive behaviours, reinforcing capability and leading positive workplace teams
- actively working to increase nursing and midwifery involvement and commitment to the organisation and its goals[10]
- paying attention to developing clinical and technical capability, and to educating and developing staff to work effectively in teams
- actively engaging with staff on strategies and initiatives to improve personal well-being and work-life balance.

How could we measure it?

The range of effective measurements would include:

- nursing-sensitive indicators, such as levels of hospital-acquired infections, pressure areas and patient falls[iii]
- levels of nursing and midwifery participation in "citizenship" activities (e.g. mentoring, quality improvement, team-building)
- indicators of workplace culture, such as perceived levels of empowerment and work satisfaction (e.g. the Professional Practice Environment Scale)
- "climate" surveys
- evidence of effective approaches to improving work-life balance and well-being, and levels of staff engagement with these
- reductions in turnover of nurses and midwives.

What will support progress in this area?

The key to progress in this area will be DHBs, the Ministry of Health, the Government and the professions all seeing this as a priority issue, and collaborating to bring about change. Points in favour of such collaboration include:

- There is evidence that gains in this area will bring dividends for patients, clients, nurses, midwives, and organisations.
- While widespread change will take time, the incremental gains that are made will translate into positive measurable benefits during the journey.
- There is a will among the workforce to consider change in this area, and therefore a good basis for engagement and co-operation with organisations.
- Information already exists to greatly assist organisations to begin the process of change.

What might hinder progress in this area?

The main barriers to achieving improvement are:

- The changes required will not be rapid, readily secured, or easily sustained.
- Organisations can lead but not direct the workplace culture. Transforming the working environment requires genuine and intelligent co-operation between people at all levels of the sector, and a willingness to do things differently.

iii Nursing-sensitive indicators are measurable patient outcomes that can be directly attributed to the quality of nursing.

- Securing measurable improvement in the other Elements discussed in this chapter will be necessary to give strong signals to nurses and midwives that the organisation has their health and well-being as a primary objective.

Other factors with the potential to hinder change include:

- the size of the task, which makes it appear daunting, and the fact that it will not be readily achieved by organisational direction and control alone
- failure to identify and deal with barriers to the change happening now - the gap between the "espoused" culture and the reality
- persistent "top-down" approaches to decision-making, including a reluctance to change existing power relationships
- other competing priorities within the Government, organisations and professions, which may result in work in this area being repeatedly deferred
- not having the right people present in the workforce in sufficient numbers to support staff and organisations in learning how to respond in different ways.

KEY MESSAGES

- A motivated, satisfied workforce is crucial to achieving organisational success.
- Two linked approaches offer significant opportunity to improve some of the least successful aspects of the current health system. These are:
  - sector-wide engagement aimed explicitly at addressing organisational and workplace culture, and
  - giving a strong signal to nurses and midwives that the key areas identified in this Report will be addressed.
- The actions required, while substantial, have more to do with reframing attitudes and ways of working than with widespread reform requiring large injections of resources.
- In order to be successful, "ground-led, top-fed" approaches will be necessary, based more on flexible, principles-based strategies than on prescriptive rules.
- Making gains in this area has the potential to take the pressure off more "resource hungry" strategies, such as substantial increases in staff numbers.

c. Creating and sustaining quality and safety

Fundamentally, "provider" healthcare organisations exist to deliver quality, safe healthcare to patients/clients. Quality and safety relate both to the patient/client and to the entire environment in which care takes place, including staff. Quality and safety are part of a continuum, with optimum outcomes at one end and doing no harm at the other.

Quality is required in all aspects of organisational performance. It includes the maintenance of quality standards (doing the job well), quality assurance (measuring and evaluating what is done), and quality improvement (doing it better).

Creating and sustaining quality and safety is therefore a dynamic activity that requires maintenance and monitoring, as well as ongoing efforts to improve standards and respond

to new information. The achievement of quality and safety is the responsibility and domain of everyone in the workplace.

Why is this important?

Quality and safety are the cornerstones of best practice for ensuring that patients receive the care and treatment necessary to maintain or improve their health status. Without evaluation, monitoring and continuous improvement of procedures, processes and patient health outcomes, patients are at risk.

Nurses and midwives are important in sustaining a safe, quality healthcare environment, through direct caring activities and environmental surveillance.[iv] In order to do both these things effectively, nurses and midwives need a working environment where quality and safety are valued and are visibly accounted for in every aspect of their work.

There is a critical and interdependent relationship between those who deliver care and surveillance, and those who organise and manage the systems to enable care to take place. In order to achieve and sustain functional, effective quality and safety management systems, organisations rely heavily on active participation by nurses and midwives in quality assurance, improvement activities and error reporting.

> Patient safety requires nursing vigilance. Nursing vigilance is dependent upon nurses having enough time to assess and monitor their patients, to read their notes, to plan the care to manage the risks, to implement the treatment and evaluate its effectiveness, to spot the changes and make the connections, to save the patient. (Submission to SSCOI)

Achieving the high level of participation required depends on two factors. First, nurses and midwives must be supported to integrate quality and safety activity into their everyday practice (including the provision of time and resources). Second, organisations must respond consistently and appropriately to the outcomes generated by quality and safety activity. Where these two factors are consistently absent, nurses and midwives can lose trust in the organisation's ability to manage critical parts of the system that are integral to supporting nursing and midwifery practice. This results in withdrawal of participation in quality and safety activity.

Quality and safety are responsibilities that can be ascribed to every individual within an organisation. The key to delivering quality, safe systems is trust, co-operation and mutual responsiveness at all levels of the organisation. The emphasis on quality and safety has been shown to increase productivity and reduce costs.

What is our evidence to support this view?

Caring for patients relies heavily on human decision-making and action, which in turn are supported by systems and the work environment. Of all the occupational groups involved in healthcare delivery, nurses and midwives are arguably closest to both of the "pointy ends" of the quality and safety continuum: achieving quality patient outcomes, and avoiding error which may result in harm. A recent study highlighted some of the practical issues faced by

iv Surveillance refers to the ongoing monitoring and observation of patients/clients undertaken by nurses and midwives. It includes skilled assessment and appropriate action.

nurses in terms of patient/client safety. It found that:

> ...71 per cent of all the patient safety incidents identified were related to general ward care and discharge planning. The safety incidents included deficiencies in basic care, pressure ulcer formation, chest infection and a number of problems associated with drug and intravenous administration.[11]

A report to the Director General of Health in 2001 noted that, based on overseas data, adverse events representing failure of quality and safety and leading to harmful consequences could affect as many as 27,000 patients per year in New Zealand, at a cost of over $2 billion per year.[12]

A systematic review of the scientific literature on the quality of healthcare in the United States found that there were:

> ...large gaps between the care people should receive and the care they do receive. This is true for preventive, acute, and chronic care...it is true for overuse, underuse, or misuse...it is true for all age groups...it is true for the whole country or a single city.[13]

What do we know about what is currently happening here?

Those who manage healthcare organisations understand the imperative to develop and maintain systems to support safe, quality healthcare delivery, and it would be unjust to suggest that resources and attention are not being applied to managing the situation in New Zealand. All DHBs have quality programmes and safety systems in place to identify and analyse risk and/or error. Organisations direct considerable amounts of resources and energy to pursuing both quality and safety. Examples include moves towards adopting systems-safety thinking, no-blame cultures, and safety cultures.

Quality and safety require staff engagement and co-operation. When time and education to support this participation are not available, the inability to participate has ongoing consequences for all levels of organisational functioning.

During the SSCOI consultation, nurses and midwives expressed concern over failures to achieve quality and safety targets. Nurses and midwives understand the direct relationship between their actions, the health of their workplace environment, and patient outcomes, and are concerned that there are regular instances where quality and safety are breached. Committee members also heard that participation by nurses and midwives in quality assurance, improvement activities and error reporting is at a significantly lower level than is required to sustain effective quality systems and practice. This could mean that organisations are simply not receiving the sensitive surveillance data required to monitor and regulate the system.

Barriers to participation in quality and safety activity

Both locally and in the literature, three main barriers have been identified:

- Failure to factor actual time for such activity into workloads and budgets is hampering the ability of many teams to participate effectively.
- There is a disconnection between the processes of audit and continuous improvement, and the perceived "real work" of taking care of patients.

- The quality and safety elements of organisational strategy often compete with other priorities for financial and other resources, leading to under-resourcing.

Barriers to full participation in incident reporting

1. "Culture of blame"

   This is often cited as a key reason why nurses (and other health professionals) have a tendency to under-report error or omission. In this type of culture, blame is the first response to error:

   > I can think of several instances recently where I have not reported a situation where I felt practice was not good, because I didn't want to get a colleague into trouble. (SSCOI Submission, 2005)

2. Organisational issues

   On its own, this "culture of blame" does not sufficiently explain the fact that many of the deficiencies that nurses observe relating to systems or environmental factors are not being reported. Other cited barriers to reporting include the bureaucracy of the reporting processes, the lack of organisational responsiveness when reporting does occur, and a loss of trust between clinicians and management.

3. Keeping incident reporting "manageable"

   Given the number and complexity of quality and safety issues faced by healthcare organisations, if rates of reporting accurately reflected actual incidents it is likely that the system would be overwhelmed, with consequent increases in cost and administrative burden.[14] There may therefore be tacit agreement within the system to keep reporting to a "manageable" level.

4. Separation of quality and safety

   Quality and safety are sometimes managed and administered separately, depending on whether the primary risk or benefit is to the patient or to staff. The disadvantages of this approach are the potential duplication of effort, and the various "arms" of the system being poorly set up to inform each other.

5. The disproportionate burden of accountability

   Every person who works in the health sector shares responsibility for achieving quality and safety. All staff should be able to see the extent and limits of their accountability, and know how to mobilise other parts of the system that fall outside their personal scope. At present, nurses and midwives feel that they carry a disproportionate burden of managing organisational risk, and that the remedies are not within their sphere of control. The systems must be responsive when nurses and midwives report safety issues.

What would we see if we were achieving in this area?

Achieving quality and safety systems that are meaningful and clearly related to quality outcomes for patients and staff, combined with an organisation that encourages innovation and engages with staff about quality issues and improvements, would benefit all stakeholders. There would be a mutually supportive relationship, with the organisation providing the necessary system, processes, resources (including time) and support, and the nurses or midwives engaging in quality and safety activity that is embedded in everyday practice.

How could we measure it?

Appropriate measures would include:

- surveys of staff and patient satisfaction
- levels of participation by front-line staff in quality activities, and time thus spent
- levels of participation by front-line staff in incident reporting and incident investigation
- proportion of identified safety issues resolved within particular timeframes
- levels of visibility and priority accorded to quality and safety in strategic and service planning
- nursing-sensitive indicators of quality care provision, e.g. rates of development of pressure areas
- incidence of preventive strategies, e.g. identification and surveillance of patients at risk of falls.

What will support progress in this area?

The following are major factors in achieving success:

- The necessary structures and resources are generally in place (although not necessarily directing attention and energy in an optimal way).
- Some of the data required to support an improved system is already being collected.
- The evidence on which to base further data collection already exists.
- Attention needs to be paid to aspects of quality addressed in other sections of this Report, such as workplace culture, knowledge and skills, and technology.
- Progress could be made in some areas relatively quickly, thus providing the positive signals the sector requires.

What might hinder progress in this area?

The systems and processes currently in place are mainly "top-down" and centrally focused. Current data and outcome measures serve to satisfy monitoring requirements that do not always reflect the realities of practice. This means that:

- The process of re-engaging staff will involve time and commitment.
- The current systems are large and bureaucratic, and this will pose challenges in bringing about change.
- The time and resources needed for nurses and midwives to engage in quality and safety activities to the level required will need to be found or redirected from within current systems.

KEY MESSAGES

- Many front-line nurses and midwives report that they do not feel safe in their current work environments.
- Fundamentally, healthcare organisations exist to deliver quality, safe healthcare to patients/clients.
- Quality and safety relate both to the patient/client and to the entire environment in which care takes place, including staff.
- Quality and safety are part of a continuum, with optimum outcomes at one end and doing no harm at the other.
- Quality and safety activities are work, and therefore need to be treated as work, and to be factored into budgets and non-clinical time.
- Organisations that achieve the highest levels of quality and safety make this area pervasive, visible, and valued across the entire organisation.
- Progress in this area is feasible if there is commitment to evolving and reframing current systems, and to positioning quality and safety at the highest levels of organisational attention. Without this approach, other competing priorities will inevitably continue to be given precedence.

d. Authority and leadership in nursing and midwifery

Authority and leadership are evident when nurses and midwives shape, direct and take appropriate action relating to both patients' requirements for care and nursing and midwifery resources and services. The nursing and midwifery resource encompasses the practice of nurse practitioners, lead maternity carers, hospital midwives, registered nurses, enrolled nurses and nurse assistants.

Nursing and midwifery authority exists at multiple levels of the organisation and in the community, and extends out to influence health policy. Levels of authority should be commensurate with the level of responsibility expected of the individual nurse or midwife.

Why is this important?

Nurses and midwives need to have control over the resources and processes that enable them to make decisions, in order to achieve the outcomes for which they are accountable. Vesting appropriate authority in nurses and midwives, and in nurse and midwife leaders, provides them with that control. Such authority is critical to the effectiveness of nursing and midwifery roles. The more control that nurses and midwives have over care services, the greater the likelihood of effective outcomes. This requires systems to be in place to support nursing and midwifery decision-making at all levels of the organisation. Having the appropriate authority to make decisions improves patient satisfaction, clinical safety and service productivity.

To achieve maximum efficiency, decisions need to be made by the health professional nearest the point of care. For example, if a nurse assesses that a patient is ready for discharge, but has no authority to discharge them, then delays will generate unnecessary work and may even place the service and other patients at unnecessary risk.

A workforce of unregulated caregivers works alongside regulated staff in providing care. Achieving the most appropriate use of the nursing and midwifery resource requires a strategy

to ensure that patients receive the appropriate level and standard of care at the right time. The wide variety of patient needs, and the requirement to make optimum use of scarce health resources, demand that the strategy is designed and supported by nurse and midwife leaders who have clinical knowledge, experience of institutions and systems, and understanding of how processes work best.

In addition to professional competence, nurses and midwives require two things to "get the job done": a system that allows them to exercise their legitimate authority, and capable managers to create facilitating systems. A clinical nurse or midwife with appropriate authority will be able to action appropriate decisions about care to facilitate the patient's journey. A clinical charge nurse or midwife with appropriate authority will ensure that the resources, supports and workforce capacity are available to facilitate the delivery of professional standards of care on a day-to-day basis. A nurse or midwife manager with appropriate authority will ensure that workforce and resource planning and provision support the work of nurses and midwives. A Director of Nursing or Midwifery with appropriate authority at the executive level will ensure that the service is run effectively.

Collectively, nurses and midwives understand the business of providing care 24 hours a day, seven days a week, and how organisations need to work to deliver quality, safe patient care. In order to create this supportive work environment, it is essential that nurse managers and leaders are provided with the opportunities to develop the necessary skills and knowledge to manage and lead people effectively.

What is our evidence to support this view?

Much of the evidence about authority and leadership comes from hospital-based nursing studies. This evidence is compelling, and it is reasonable to assume that the findings can be generalised to community-based and midwifery services. Hospitals with responsive organisational infrastructure have been shown to produce better patient outcomes.

Some of the most relevant evidence consists of lessons from the past. During the 1990s, when nursing leadership roles were converted into advisory positions, the authority needed to shape nursing practice and make relevant organisational decisions was diluted. Nursing, which had traditionally been centrally managed, was developed into service-based units. These changes contributed to a reduction in workforce morale and a substantial decrease in retention rates of senior nurses.[15] Those driving these changes appeared not to understand the essential role played by nursing leadership in organisational management.[16] Increased frequency of adverse patient outcomes has since been linked in part to the decrease in nursing numbers and the re-engineering of nursing leadership structures during the 1990s.[17]

The loss of the Nurse Executive has been found to be a reliable predictor of low evaluations by nurses of their institutions.[18] Having a competent Director of Nursing at the executive level of an organisational structure, and a structure that devolves authority to the appropriate level, has been shown to reduce turnover costs, improve retention rates, and achieve better patient outcomes.[19]

Nursing leadership and authority have a direct link to nurses' satisfaction and empowerment. For health professionals, the most appropriate leadership style is one that acknowledges legitimate authority, and therefore nurses' rights to exercise professional capability and participate in decision-making. Nurses who work in services with good infrastructural

support are only half as likely as other nurses to report dissatisfaction and burnout.[20] In a recent study of leadership demographics and responsiveness to nursing issues in five countries, fewer than half the nurses surveyed said that management in their hospital was responsive to their concerns, provided opportunities to be involved in decision-making, or acknowledged nurses' contributions to management concerns.[21]

Nurses work to their potential with doctors and others in the provision of care when leadership and authority are able to be appropriately exercised, and appropriate organisational structures and processes are in place.[22] For example, nurses have been described as providing the surveillance system of the hospital because they are best placed both to recognise impending or actual complications, and to mobilise rapid intervention.[23] Mobilising rapid intervention is dependent on good communication, adequate structure, and nurses' ability to exert their legitimate authority.

Nurses working for competent nursing leaders have reported significantly less emotional exhaustion and psychosomatic symptoms, better emotional health, greater teamwork and more job satisfaction.[24] These findings suggest that investment in the development of nursing leadership positively affects the health and well-being of nurses and, ultimately, outcomes for patients.

What do we know about what is currently happening here?

At consultation forums around the country, nurses and midwives reported an urgent need to strengthen leadership support for front-line workers, particularly after hours. They reported that services were failing to deliver consistently a satisfactory escalation plan to mitigate or respond to unsafe staffing levels.

Nurses and midwives providing direct care reported circumstances where they frequently reached the limits of safe practice, but had no authority to take corrective action. They reported feeling highly compromised by what appeared to be a lack of response from those responsible for corrective action at the next and subsequent organisational levels.

At the same time, nurses and midwives reported feeling responsible for any adverse patient outcomes that arose as a result of failure to correct the hazardous situation. Lack of control over clinical decision-making, working environments and workloads are common reasons given by nurses and midwives for leaving their profession.

Appropriate nursing and midwifery involvement in clinical and operational management is inconsistent across New Zealand. Nurses and midwives are not always actively involved in the management of patient care, service management and change management. While some DHBs have acknowledged the need to have nursing and midwifery advisory positions with professional and operational responsibility for the nursing and midwifery workforce, others have not. Currently, Directors of Nursing who hold advisory roles rely on influencing others who have authority to make decisions affecting nursing and midwifery and patient care. Many DHBs don't have a Director of Midwifery.

Since the health reforms began in the 1980s, many services formerly and logically associated with nursing and midwifery management (e.g. management of quality, risk and human resources) are now most likely to be managed by non-nurses. The effect has been a disjunction

between organisational infrastructure and organisational need. In many cases this has created inefficiencies, resulting in reactive rather than proactive decision-making.

Some successful examples of nursing leadership with appropriate vested authority exist in the DHB sector. Where such models exist, they have proven to be highly effective. At MidCentral Health, for example, under the leadership of the Director of Nursing, nursing turnover has reduced significantly in the past five years, and the management of nursing workload against patient demand has improved. Nursing-led initiatives at Christchurch Hospital have seen an improvement in the forecasting of patient demand and in the management of nursing resources.

What would we see if we were achieving in this area?

- Nursing and midwifery services would be led by nurses and midwives, who would carry authority that matched their expected responsibility.
- Nurses and midwives would have the systems, support and authority to provide safe and effective patient care.
- Nurses and midwives would make timely decisions based on informed assessment. Those who needed to respond would heed their advice or support them in their independent action.
- Nurses, midwives and caregivers would be supported to work safely to the full extent of their competency and scope. Thus nursing and midwifery (a significant human resource) would be used to its potential. There would be sufficient nursing and midwifery leaders in place to support safe and healthy workplaces, 24 hours a day, seven days a week.
- The Director of Nursing and the Director of Midwifery would have formal accountability and authority for quality patient care and for nursing and midwifery services.

How could we measure it?

Appropriate measures would include:

- an audit of health services to assess the structural and functional capacity of leadership positions in nursing and midwifery, and their involvement in relevant planning and processes
- trends in the use of overtime and of agency and casual nurses, as well as in the turnover, sick leave and injury rates of nurses and midwives
- an audit of the provision of direct support roles to front-line nurses and midwives, including after-hours support
- levels of satisfaction among nurses and midwives with nursing and midwifery support and leadership.

What will support progress in this area?

The case for nursing and midwifery leadership and management of nursing and midwifery services is well supported by research. The costs of improving leadership capacity in nursing and midwifery will be offset by reductions in cost overruns from poor patient and nurse outcomes.

While this may require a considerable shift in thinking and approach, the actual change is not as remarkable as it may first appear, since it simply requires the transfer of authority to those who are already carrying the responsibility and accountability for nursing and midwifery services and patient care outcomes. In many cases, nurses and midwives already have the opportunity to assert legitimate authority, and should be encouraged to do so.

There are some successful models in operation in New Zealand that could be used by other DHBs to undertake change.

Many postgraduate and undergraduate nursing courses now include modules on leadership and delegation. These are providing the theoretical basis and practical experience needed to "grow" the next generation of nursing and midwifery leaders.

What might hinder progress in this area?

Current organisational cultures, institutional practices and structural arrangements at Ministry of Health and DHB level make it difficult for nursing and midwifery to exercise their authority in the planning and managing of services. While there are staff in the Ministry with a nursing background, the majority of senior clinical advisory positions are held by doctors. Nurse leaders and professional nursing organisations have consistently expressed concern that policy is primarily influenced by a biomedical analytical framework, which limits opportunities for alternative views and therefore alternative strategies to deliver the Government's health policy. While nurses hold a variety of positions in the Ministry of Health, there is only one dedicated nursing advisory position. The ability of nursing and midwifery to exercise clinical and organisational influence at DHB level is often restricted by the clinical governance/service management matrix.

The lack of preparedness of nurses and midwives to take on leadership and support roles, after a decade of the relevant skills being under-utilised, will require support and attention if the introduction of such roles is not to be delayed.

Three other factors may hinder progress:

- a lack of understanding about the essential role of nursing and midwifery in institutional management among those who currently hold authority within the organisation
- a lack of support from those who stand to lose authority if formalised leadership is returned to nursing and midwifery
- a lack of flexibility and/or professional focus in some nurses and midwives.

KEY MESSAGES

- Nurses and midwives understand the business of providing care 24 hours a day, seven days a week, and how organisations need to work to deliver quality patient outcomes.
- Nurses and midwives having the authority to make appropriate and timely decisions improves their own satisfaction, patient satisfaction, and service productivity.
- Appropriate authority vested in nursing and midwifery roles is critical to role effectiveness and organisational functioning.
- The system needs to provide nurses and midwives with the authority and support to make decisions at the point nearest to where it is necessary.

- The optimum use of scarce health resources demands that nurse leaders design and manage safe, supportive systems that make appropriate use of the full range of nursing personnel.
- In many cases, nurses and midwives already have the opportunity to assert legitimate authority, and should be encouraged to do so.

e. Acquiring and using knowledge and skills

Acquiring and using knowledge and skills refers to a range of processes through which nurses and midwives seek, develop and put into practice the competencies required to support safe, quality healthcare.

This is a lifelong undertaking that should match the practice development needs of the nurse or midwife throughout their career. It requires the development of competency in teamwork, clinical effectiveness, utilisation of knowledge, leadership, and the exercise of professional autonomy.

The processes include teaching and learning, mentoring, reflection, critical thinking, investigation, problem-solving and research. These take place in a variety of settings, with the practice environment as the principal place of learning. Mentors, clinical experts, experienced colleagues, practical experience and structured education all support the acquisition and use of knowledge and skills.

Participation in formal tertiary-based education is equally important, in order to support the development of advanced practice and research, and the expansion of the body of knowledge of nursing and midwifery.

Why is this important?

Patient outcomes are influenced by the knowledge and skills of nurses and midwives who care for them. In order to manage increasingly complex patient care effectively on a daily basis, nurses and midwives need appropriate levels of knowledge and skill. Identifying learning needs and facilitating and supporting appropriate learning opportunities are necessary to develop and sustain the desired mix of skills.

Acquiring knowledge and skills is part of the normal "work" of nurses and midwives, and needs to be factored into resourcing and budgets. Without appropriate levels of investment in education and in building expertise, maintaining the required levels of competency in the workforce becomes difficult. Over time, failure to do this may compromise the quality and safety of patient care.

Organisational support and a responsive education and training system are also important, to prepare nurses and midwives for changes in technology and clinical practice, and to allow flexible and varied models of nursing care delivery, designed to meet both patient and staff needs. The Nursing and Midwifery councils have highlighted the importance of the ongoing development of knowledge and skills by making evidence of such learning a mandatory requirement for holding a practising certificate.

Effective staff orientation, training and career development are critical elements in retaining nursing staff. Lower levels of staff turnover are known to have a positive influence on patient

outcomes. Where work environments provide access to information, resources, support, and the opportunity to learn and develop, nurses feel empowered and are less likely to experience job strain.[25] This in turn impacts on the degree of burnout and job satisfaction experienced.

What is our evidence to support this view?

The objective in supporting staff to acquire knowledge and skills is to provide healthcare professionals with the right skills, competencies and knowledge to deliver safe, efficient and effective healthcare. Research findings confirm that the higher the level of competence (through higher education and training), the better the overall outcomes and efficiency of resource use.[26]

An individual's clinical competence has been identified as an essential precursor for collaborative practice between nurses and doctors. Moreover, nurses and doctors are more likely to collaborate when each perceives the other as having the knowledge necessary for good clinical care.[27] Research also suggests that improved training in teamwork and enhanced communication skills are potentially important methods of reducing clinical error.[28]

What do we know about what is currently happening here?

New Zealand nurses at all levels have emphasised the importance of ongoing clinical education and professional development. They see commitment to such development as a necessary part of their professional role, and a demonstration of how they are valued by their employer.

Nurses and midwives have described failures in the current system to provide adequate access and support for training. Many have complained of having to complete training in their own time, further contributing to their workload, and often at their own cost. On the other hand, feedback from the SSCOI consultation process suggests that when staff do attend training in working hours, they feel guilty at leaving colleagues who then come under pressure due to short staffing; or they cannot concentrate fully because of concerns about unfinished work in the service or ward. They also report feeling frustrated when training leave is cancelled.

Current fiscal restraints and critical service requirements put professional development, both clinical and non-clinical, at risk of being sacrificed to reduce costs. This type of short-term, cost-containment strategy has been shown to result in "a less skilled and capable [registered nurse] workforce who, in addition to performing less effectively, feel more stressed and are more likely to resign".[29]

Internationally, the rise of the evidence-based practice movement has provided new opportunities to:

– recognise and acknowledge the critical role that knowledge plays in nursing and midwifery practice, and
– formalise and rigorously evaluate nursing and midwifery knowledge.

It is also acknowledged that "knowing" what to do does not necessarily translate into improved practice. Traditionally, there has been a heavy reliance on using formal and informal classroom-style lectures to provide ongoing acquisition of knowledge and skill. However, the effectiveness of this method is being questioned.[30] Combining a range of approaches (formal

and informal, internal and external), based on identified need, should result in resources being used more effectively, and achieve the goal of translating evidence into practice.

Nurses and midwives support the use of both internal and external learning opportunities. However, anecdotal evidence suggests that there is still a significant disconnection between opportunities for external tertiary learning and workplace reality. Continued effort is required to ensure that practice is the main (but not the only) driver for education.

The recent introduction of new graduate programmes has been an important step towards ensuring support for new graduates in their transition to clinical practice. It will be important to continue working with undergraduate education providers to ensure that students receive an education that prepares them for the reality of the current practice environment. The new graduate programme is not designed to teach the "basics", but to build on a sound knowledge base in order to support a smooth transition into team roles and clinical practice. However, there is still an ongoing responsibility on the part of education providers to ensure that new graduates are "fit for the purpose".

The provision of resources and access to clinical educators, mentoring and appropriate learning opportunities varies considerably between teams, units and DHBs. Opportunity exists to make better use of the investment that DHBs are currently making, through greater efforts to understand the need for knowledge and skill acquisition, and matching this need with appropriate resources and learning opportunities.

What would we see if we were achieving in this area?

If healthcare organisations adopted a learning culture, and nurses and midwives received the support they needed to acquire and use the appropriate knowledge and skills, we would expect to see the following.

Patients:

- feeling greater confidence, through being cared for by confident, skilled nurses and midwives
- experiencing optimum recovery time, due to evidence-based care and a reduction in clinical errors
- receiving consistent care from effective multi-disciplinary teams.

Nurses and midwives:

- using the clinical workplace as the principal place of learning, with dedicated resources (time, people and technology) for learning and reflection
- practising in ways that demonstrate the use of advanced diagnostic reasoning, as well as confidence, creativity and flexibility
- accessing education and learning appropriate to and sufficient for their roles
- completing effective orientation programmes.

Organisations:

- treating education, orientation and clinical learning as part of normal work, with planned and protected time allocated, as well as back-fill and related costs
- having coherent, organisation-wide approaches to learning activity

- strongly supporting knowledge-seeking behaviour and knowledge utilisation.

How could we measure it?

Appropriate measures would include:

- formal assessment of learning, through competency assessments, credentialing and examination
- reduced levels of turnover or intention to leave
- nursing-sensitive quality indicators, such as rates of errors or adverse events
- levels of investment in protected time and resources for education and training
- the monitoring of planned education against actual provision.

What will support progress in this area?

Nurses and midwives already recognise the value of lifelong learning, and could be expected to support positive initiatives.

There are already some resources and funding available for education and training, both within DHBs and externally (e.g. Clinical Training Agency funding). This may provide an opportunity to negotiate or prioritise new initiatives. It is likely that better use can be made of the current investment by DHBs, through making greater efforts to understand the need for knowledge and skill acquisition, and matching this need with appropriate resources and learning opportunities.

Many DHBs have nursing and midwifery educators in place who could support the implementation of the recommendations in this Report. It will also be important to build on relationships with undergraduate education providers, and possibly review undergraduate programmes, to ensure that students receive an education that prepares them for the reality of the current practice environment. Further opportunities for interdisciplinary learning should also be supported.

What might hinder progress in this area?

Concerns about perceived costs, lost productivity, value for money, and other similar barriers make it difficult for organisations to achieve a learning culture. Balancing the day-to-day needs of health services with the educational and learning needs of nurses and midwives is a challenging exercise in prioritisation and planning. In many areas there may be insufficient staff to release others for learning opportunities, and/or inadequate time for learning built into the normal working day.

Getting consensus on what skills, knowledge and competencies are required for nursing and midwifery practice will take time and resources. Gaining acceptance for different ways of teaching and learning, or of leading and managing the workforce, will be challenging, but can be overcome with good leadership and appropriate resourcing.

Better processes are required for evaluating the outcomes of learning activity and the translation of knowledge into practice, and would need further development.

KEY MESSAGES

- Acquiring and using the knowledge and skills to support nursing and midwifery practice is part of nursing and midwifery work, and requires protected time and dedicated resources.
- The workplace is the principal place of learning and education, and future efforts should maximise opportunities for knowledge and skill acquisition at the point of care.
- External or tertiary learning opportunities are key to advancing practice and the overall body of knowledge of nursing and midwifery.
- Co-ordination and collaboration are required between health and education providers to ensure that practice drives education, so that nurses and midwives are "fit for the purpose".
- Managers and their teams need to develop the competencies to support more flexible ways of working, and good team functioning.

f. The wider team

The wider team includes the whole range of people who have direct or indirect contact with patients. All staff employed within the DHB are part of the wider team and contribute to the best possible patient outcomes. The families or whanau of patients are also part of the wider team, and play an important role in the progress of the patient along the care pathway. Those members of the wider team who work most directly with patients and nursing and midwifery staff make up what is referred to as the extended healthcare team.

Why is this important?

The wider team needs to work in a co-ordinated and integrated way to maximise the efficiency and effectiveness of the care provided, so as to bring about good outcomes for patients and a safe environment for staff. The way in which the input of the extended healthcare team is applied is crucial. The complex clinical needs of patients require knowledge, skills and input that are broader than any one health discipline can span. Planning for care needs requires the overlapping contributions of a range of health professionals and support workers to be considered. Nurses and midwives plan and implement the care in partnership with the patient, family or whanau, and other members of the team. Integrated approaches involving all key members of the team are most likely to result in efficient and effective delivery of care, with fewer delays.

A best practice model for safe staffing and healthy workplaces must take into account this interplay between team members' contributions. For any given patient or group of patients, different combinations of input will be required.

Access to the skills of others

Uniquely, nursing and midwifery care requires a 24-hour contact relationship with patients, whereas many other members of the healthcare team provide intermittent input. Safety and efficiency issues for patients and staff can arise "out of hours", when other health professionals or support staff are absent, for example when administrative staff are not present in busy acute settings, or delays occur in accessing the specialist knowledge of other team members. The direct effects on patients include delays in diagnosis or treatment, or sub-optimal control

of symptoms such as pain. For nursing and midwifery staff, such delays bring frustration and stress, especially when patients are seen to suffer as a result. This can prompt nursing or midwifery staff to take on tasks or procedures for which they feel ill prepared, or lack the time or expertise required. Performing a role more appropriately carried out by another health professional not only takes away time from other patients, but also raises concerns about possible adverse consequences.

Non-clinical support

The input of non-clinical support to the healthcare team is most intensive during "normal" working hours, Monday to Friday. This has traditionally been the most intensive period for care delivery. However, the increasingly acute needs of patients within the health system mean that more of the care is being spread across the 24-hour period. Most acute admissions to public hospitals occur after 4 p.m. The substantial reduction in the availability of non-clinical support staff "out of hours" affects the ability of nursing and midwifery staff to complete care tasks. For example, nurses and midwives must answer "out of hours" phone calls. A safe, effective staffing model must take such factors into account. Although it is not possible to provide all support systems on a continuous basis, cover must achieve a balance between effective care and affordability.

The training needs of others

Other professional groups in training, particularly medical staff, are concentrating on their own training needs, and are not yet fully competent. As a result, the work of nurses and midwives can be slowed considerably, with consequent impacts on patient care.

Family or whanau

Nurses and midwives are the health professionals who directly interact most often with family or whanau, providing detailed feedback on patients' progress and liaising about input to care. This work is rarely taken into account in the time allocated for patient care. In some work settings, the dynamics of family or whanau interaction essentially widen out the delivery of care from the individual patient to the group, thus increasing the nursing workload.

What is our evidence to support this view?

Currently there is little tangible evidence, apart from common sense, to support the importance of integration of the wider team for safe staffing and healthy workplaces. Most of the research in New Zealand and other countries centres on the match between nursing or midwifery resources and patient needs. There is little information on the role that other members of the wider team play in the mix. It is clear that to move forward, these factors need to be taken into greater account in New Zealand.

What do we know about what is currently happening here?

During SSCOI site visits, there was no shortage of relevant anecdotal evidence and comments, including accounts of the negative consequences for patients of support people not being in place. These reports confirm the importance of the wider team to safe staffing and healthy workplaces for nurses and midwives. Further investigation will help to discover exactly how issues relating to the work and interaction of the wider team affect patient outcomes, and to develop effective staffing models.

At one DHB, nursing and other clinical staff had major workload problems on Monday mornings. There was a high incidence of patients being seen and kept in hospital over the weekend. However, because administration personnel were not employed in the weekend, the paperwork was not completed between 4 p.m. on Friday and 8 a.m. on Monday. This resulted in tension among nurses and medical staff. The intense pressure on Monday morning also resulted in high absentee levels among administration staff at that time.

More positively, an Emergency Department in a tertiary hospital reported the successful use of trained volunteers (Friends of the Emergency Department) to support the work of nurses and the comfort of patients. A recent study at a major tertiary hospital identified the potential to revolutionise the way the service operated at night, through existing members of the wider healthcare team working in ways that would provide better support for co-ordinated care delivery.

Nurses and midwives frequently perform work that could or should be undertaken by other team members. For example, in one DHB, District Nurses spend considerable amounts of time on the phone, tracking down correct patient contact details and core referral information. This work would be more appropriately undertaken by clerical or administrative staff. Identifying what aspects of work currently done by nurses and midwives could be supported by other members of the wider team would assist in introducing key support roles, and freeing up nurses and midwives for care delivery. Where nurses and midwives are required to carry out tasks that do not strictly require their skill set, this should be factored into staffing.

Nurses are now reluctant to perform procedures that they carry out only rarely, or that are more usually performed by specialists, because of increased concern about the risks of error or medical misadventure. For example, following a Cerebral Vascular Accident (stroke), it is necessary to check whether the swallowing reflex has been restored, before oral food and fluid are provided. This procedure was once in the domain of practice of the registered nurse, but it is now common practice to use the skills of Speech Language Therapists. When patients require this assessment out of hours, either they are kept on intravenous therapy for longer than is clinically necessary, until the therapist becomes available, or nurses have to perform the procedure with inadequate preparation. In smaller hospitals, it is not uncommon for nurses to take on responsibility for patients' physiotherapy or rehabilitation activities, which are normally undertaken by allied health professionals.

Where it is assessed as necessary for the nurse or midwife to extend their role in order to provide continuity of care, additional training and appropriate levels of supervision need to be provided.

What would we see if we were achieving in this area?

If care was effectively co-ordinated between all members of the wider team, we would expect to see:

- reduced delays in treatment and/or diagnosis
- measurable improvement in key care indicators, such as time to analgesia and pain scores
- reduced errors and adverse events

- improved patient outcomes and satisfaction with care
- reduced length of stay, due to co-ordination of care and efficiently managed discharges
- resources being freed up to enable more patients to receive treatment
- the wider team visible in staffing models
- "out of hours" support matching requirements for patient care
- nurses and midwives being freed up to concentrate on nursing and midwifery work.

How could we measure it?

Appropriate measures would include:

- average patient length of stay
- rates of "failed" discharges
- patient-related indicators such as pain scores and time to analgesia
- surveys of patient satisfaction
- patient complaints relating to treatment delays and care deficits
- surveys of nurse or midwife satisfaction.

What will support progress in this area?

Most DHBs have systems in place that could be used to evaluate current work practices and staffing matrices for the wider healthcare team. This information could be compared with organisational statistics on peak occupancy, admission times and discharge times. This would assist in identifying the mix of care workers required, and ensuring that the balance between nurses or midwives and the extended healthcare team is appropriate. This mix and the associated skill set will vary across care settings and times of the day.

What might hinder progress in this area?

Despite improvement in this area being seen as a matter of common sense, there are multiple stakeholders to consider. Engaging with staff across the spectrum of the wider team will be challenging, and defining the skill sets required may take time.

Resource constraints may affect the ability to innovate and/or to introduce new or extended support roles. Training and support will be required where role evolution or devolution is proposed. Altering models of practice and time of practice may be problematic for some disciplines with a traditional work dynamic.

There is a risk that the process could result in technical roles being established that focus on one element of the required services. This could create further complications and work against an integrated model.

The medical profession has traditionally held a degree of power to direct and control the work of nursing staff. Greater integration of practice may thus be problematic.

KEY MESSAGES

- Good patient outcomes are built from the contributions of the wider team.
- The nursing and midwifery staffing model must explicitly take into account the mix, skill sets and availability of the wider team.
- Nurses and midwives provide the continuity and consistency in the system, and this work requires time and recognition within the staffing model.
- Defining what has to be done by nurses or midwives and what could or should be done by others has the potential to free up nurses and midwives to do their work.
- Role extension needs to be supported by appropriate training, supervision and authority.
- To achieve the best outcomes, the wider team needs opportunities to work and plan together in order to ensure a better fit between the various components of care. This, in turn, will lead to better outcomes for patients.

g. The physical environment, technology, equipment and work design

The physical environment is the "space" in which nurses and midwives work. It includes the buildings, facilities or settings in which nursing and midwifery care is delivered. Technology and equipment are the "tools" necessary to support the work of nurses and midwives. Work design refers to the way in which their work is designed and organised. These elements influence and interact with each other to provide a work system that delivers healthcare for patients and a safe, healthy work environment for nurses and midwives.

Why is this important?

A well-designed hospital or healthcare environment is important for reducing inefficiencies, improving safety, making the most of technology, and enabling more productive ways of working.

The physical design or structure of the workplace influences the way in which care is delivered and nurses and midwives are deployed. Technology and equipment can improve communication, reduce the risk of error, and improve efficiency, thus allowing nurses and midwives more time to deliver nursing and midwifery care. Work design and work organisation support the efficient and effective use of nursing staff, reduce errors, and improve worker safety.

Workplaces that achieve a close alignment of work patterns and the physical setting can improve workflow and reduce waiting times, as well as increase patient satisfaction with the service. A well-designed healthcare facility also supports healing and recovery for patients/clients, and enables family or whanau to be part of the delivery of care.

Several pieces of legislation make specific reference to the importance of the physical working environment. For example, the Health and Safety in Employment (HSE) Act 1992 requires employers to take all practicable steps to prevent harm occurring to employees from the way work is organised, and to ensure the safety of all employees by managing all significant

hazards.[v] Manual handling and unsafe workloads are examples of significant hazards that employers are required to take reasonable steps to minimise.

What is our evidence to support this view?

There is considerable evidence of the value for patients and staff of having a well-designed, aesthetically pleasing, comfortable and appropriately resourced physical environment. Evidence also suggests that the design of healthcare settings can reduce the risk of hospital-acquired infections.

In healthcare facilities around the world, efforts are under way to design care processes that increase standardisation, reduce duplication, and take advantage of work system engineering – all key principles in creating safer systems. The layout of the ward or unit can significantly affect teamwork and staffing decisions. Close proximity improves opportunities for teamwork and reduces transaction costs. Geographical distance can limit opportunities for co-operation, or increase the costs of labour. One study showed that almost a third of nursing staff time is spent walking, more than is spent on any other activity apart from patient care.[31]

Patient handling, such as lifting, repositioning and transferring, is primarily performed by nurses and healthcare workers. With an ageing population, the performance of these tasks exposes healthcare workers to increased risk of work-related injuries, with lower back pain being the most common.[32] Research suggests that mechanical patient lifts, slide sheets and hoists can help reduce rates of musculoskeletal injury. Training, ergonomics, risk assessment and "no-lift" policies, along with lifting equipment and other aids, have now become accepted best practice and a necessary part of healthcare.

Emerging technology has been shown to offer considerable opportunity for improving patient safety and reducing inefficiency, for example by improving adherence to guidelines, enhancing disease surveillance, and reducing medication errors. Technologies such as electronic clinical information systems that give health professionals access to patient information, together with clinical decision support systems at the point of care, have been shown to offer a range of benefits.

Some nursing processes, such as administering medication, are known to have features that increase the risk of error:

> Administering medication is probably the highest-risk task a nurse can perform, and accidents can lead to devastating consequences for the patient and for the nurse's career.[33]

The use of computerised prescriptions and/or bar coding can significantly reduce the rates of administrative error.

Other technology, such as operational management systems, can provide nurse managers with information on bed occupancy, patient acuity and staffing, in order to match nursing resources to patients' needs. Quality systems can provide valuable mechanisms for collecting and interpreting nursing data to support improvements in quality and safety. Efficient

v A "significant hazard", as defined by the HSE Act 1992, is a hazard that is an actual or potential cause or source of: (a) serious harm, (b) harm - the severity of whose effects on any person depends on the extent or frequency of the person's exposure to the hazard, (c) harm that does not usually occur, or usually is not easily detectable, until a significant time after exposure to the hazard.

communication systems, such as paging and telephone systems, can reduce "non-value-added" time and enable more effective and efficient communication between health professionals.

There is an ever-increasing range of equipment and technology designed to improve safety or save time. Well-designed ordering and inventory systems can ensure that nurses have the tools they need. However, a thorough understanding of the workflow and work processes involved in patient care is fundamental to the successful introduction of technology.

What do we know about what is currently happening here?

Nurses have expressed a desire for greater participation in decision-making related to the introduction of new equipment and technology that will have an impact on their work. In the SSCOI consultations, nurses reported that they were involved or consulted to varying degrees in building projects, and in buying and prioritising equipment and technology. However, most decisions were likely to be made by non-nursing personnel, and might therefore lack co-ordination or appropriate planning and implementation.

> We have become reliant on technology for communication. In some areas, clinical notes are now on-line. Standardisation is required throughout all DHBs. All DHBs have capital plans to replace beds or patient handling equipment, so it is important to be involved in obtaining the right equipment that works for the physical environment. (Submission to SSCOI)

Technology and information systems usually involve significant expenditure. Nurses warned that such systems may not deliver the intended benefits if they are not designed to support nurses' work, or if processes are not redesigned accordingly. Nurses also reported a lack of adequate training, or poor after-hours support, in relation to the implementation of new technology.

> IT companies sell "products", not "solutions". Often we have jumped from product to product without working out the problem we are trying to solve. We also need to understand the "trade-offs" when we introduce technology. For example, electronic prescriptions reduce errors, but may slow down the process or add to things like printing costs. Technology products are part of a process and can't be considered in isolation to the way work systems are organised. (Submission to SSCOI)

Nurses stated that, in many DHBs, equipment is outdated or in disrepair, or facilities are poorly equipped to meet current service demands. Nurses expressed concern that the design of patient areas is often sub-optimal, so that poor visibility of high acuity patients affects nursing workloads.

> The lack of space in the mental health ward is unsafe and unhealthy. (Submission to SSCOI)

Nurses also commented on the number of different information systems and technologies, including the patient acuity or workload measurement tools used in some DHBs, and reported varying degrees of satisfaction with these systems. In some DHBs, nurse managers reported that there were limited tools in place to support rostering or any form of workload forecasting or planning. Nurses agreed that national consistency and standardisation of technology would be beneficial.

> Acuity systems are variable and should be used as tools and not take over from professional judgement. (Submission to SSCOI)

What would we see if we were achieving in this area?

If healthcare organisations adopted an evidence-based approach to physical environment, technology, equipment and work design, and involved nurses effectively in decision-making in these areas, we would expect to see:

- well-designed workplaces which support safe, efficient patient care
- workplace design and technology being factored into staffing numbers
- technology and equipment that support safe, efficient care, with appropriate training and "after sale" support
- standardised and co-ordinated implementation of technologies that are user-friendly and "do what we set them up to do"
- improved and timely access to patient/client information to support clinical decision-making
- DHBs sharing learning and experiences of implementing technology and information systems, such as electronic prescribing or electronic discharge summaries
- nurse-saving equipment, such as manual handling equipment or hydraulic/electric beds, along with equipment to improve patient safety, such as standardised infusion pumps or monitoring equipment
- a supply system that delivers "tools" (i.e., the technology and equipment that nurses need) on time
- effective communication systems that free up nurses and midwives for care delivery.

BEST PRACTICE CASE STUDY

Auckland City Hospital was designed on the best available evidence, as well as extensive involvement of and consultation with the public and staff during the planning stage. As part of the design process, nurses visited other hospitals to test ideas and see other designs. Real-size mock-up wards and clinic areas were built, and nurses provided feedback on the space they needed around patient beds, and the position or location of equipment.

Generic ward design features that were influenced by the nurses included: hand-basins in all patient rooms; the placement of utility rooms to reduce walking distances; placing the staff station in the centre of the ward, and sub-stations close to patient rooms; controlling access to medication rooms; and dedicated teaching space and meeting rooms.

Nurses also had input into the design of areas such as the children's and adults' emergency departments. The emergency department incorporated a central, elevated monitoring station, enabling staff to directly observe patients. The design of intensive care units also involved high levels of nursing input, in order to develop bed spaces that accommodated the necessary equipment and supplies, and facilitated effective communication for nurses.

How could we measure it?

Ways to measure nursing participation in workplace design, the planning, prioritising and purchasing of equipment and technology, and work design include:

- environment surveys targeting specific features, such as walking time and time spent on indirect activities
- an audit of nurse or midwife involvement in purchasing and design decisions
- an audit of wards or units to ascertain the presence or absence of identified best practice design features, such as IT support systems, equipment and communication systems.

What will support progress in this area?

The knowledge and experience gained in the sector during various building programmes or the implementation of new technologies can be used to support progress in this area. More opportunities to share these experiences are needed, or formal evaluations to inform future efforts.

> The uptake of technology, particularly in telecommunications, is phenomenal. Mobile phones are now designed to improve worker safety by having emergency "panic" buttons with planned responses to get assistance quickly, and there are better security and surveillance systems available for healthcare facilities. (Submission to SSCOI)

Key pieces of legislation shape occupational health and safety in New Zealand, and can be used as a platform for developing a safe working environment. These are:

- Health and Safety in Employment Act 1992
- Injury Prevention, Rehabilitation, and Compensation Amendment Act (No. 2) 2005
- Employment Relations Act 2000.

The Chief Executives of DHBs and the National Capital Committee should ensure that appropriate clinical input has been sought when approving capital expenditure.

What might hinder progress in this area?

The greatest barrier to creating a safe and productive work environment is the variable level of nursing and midwifery participation in the process of workplace design, and in the prioritising and budgeting that determine the best use of resources. Other significant barriers include:

- resource constraints and competing priorities
- differing perceptions of the space, tools, time and work design required to deliver safe, efficient healthcare
- resistance to work (re)design
- lack of acceptance of new processes
- ineffective communication between nurses and employers, which contributes to attitudinal, cultural and behavioural barriers.

KEY MESSAGES

- The nature and quality of the physical environment, technology, equipment and work design have a profound impact on nursing and midwifery workloads, and therefore on the safe, effective delivery of healthcare.
- The potential for well-designed and well-resourced environments to support maximum efficiency should not be underestimated.
- Involving nurses and midwives in key decisions about physical environment, technology, equipment and work design is very likely to result in environments that support nurses and midwives to work more effectively.
- The expected benefits of new technology may not occur if the technology is not designed to fit with the rest of the work system.
- Employee participation in this area is vital for the success of workplace health and safety, which is supported by legislation and national standards.

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CHAPTER 5

Putting It All Together: Establishing Safe Staffing for Healthy Workplaces

Achieving staffing that closely matches the needs of patients for care, 24 hours a day, seven days a week, is essential to achieve optimum patient outcomes. It is also essential for the health and well-being of nurses and midwives. Ensuring that there are sufficient nurses or midwives to provide safe, quality patient care is a fundamental goal for all who manage nursing and midwifery services, regardless of the setting.

The variable nature of the demand for healthcare and the relatively fixed nature of the nursing and midwifery workforce are characteristics common to all health services. These characteristics make it difficult to achieve a close match between workload and staffing. However, the effectiveness and safety of the health system rely heavily on the ability to ensure that the right number of nurses or midwives with the right competencies to deliver the right care are in the right place at the right time for every patient.

The determined application of a systematic approach to staffing that addresses all the Elements identified in this Report will enable all nursing and midwifery services to improve their ability to achieve safe and healthy staffing. The following steps bring together all of the Elements already discussed, and outline a systematic approach for establishing staffing that achieves the goals of:

- assuring patient safety and satisfaction
- supporting staff health and well-being
- maximising organisational efficiency.

Step 1: Forecasting patients

The first task is to obtain the best possible forecast of the patient/client/consumer population that the nursing or midwifery service will be required to care for. This should be as detailed as possible, and must include the forecasting of both elective and acute demand. As a minimum, it should estimate the number of patient/clients expected, their anticipated length of stay in the service, and the general nature of their need for care.

The forecast should be developed both at a whole-service level (whether community, outpatient or inpatient delivery), and at an area, unit or ward level. This forecast provides the basis for planning staffing to meet the need for nursing or midwifery care, as outlined in Chapter 4a. It must be completed before staffing resources are planned and budgets allocated.

The quality and accuracy of this forecast, and the extent to which it is used as the basis for planning staffing, are the most significant factors in achieving a safe and healthy match between patients/clients and nurses or midwives. Some DHBs are more advanced than others in forecasting patient demand, but all are seeking to improve their level of success in achieving this important task. Collaboration between DHBs and with the Ministry of Health to achieve consistently good forecasting throughout the DHB sector should be an agreed priority.

Step 2: Smoothing the planned workload

The second task is to remove as much variability as possible from the patient forecast. Although it is a major obstacle to efficiency, variability is an inevitable feature of any system responding to acute demand and individual needs. However, many sources of variability in health systems have been shown to be amenable to minimisation. Effective methods for reducing workload variability should be applied in all DHBs. It should be acknowledged that larger services have more capacity to smooth their workloads than smaller services do, but it should never be assumed that reductions are not achievable.

A wide range of techniques and processes have been developed to improve workload smoothing, such as:

- using predicted length of stay (LOS) for planned admissions to forecast bed occupancy, and adjusting elective admission plans to smooth predictable peaks
- scheduling theatre cases to provide a steady flow of work, rather than scheduling cases according to the surgeon's preference, with no regard for aggregate flow
- identifying probable peak loads arising from the compounding of acute-generated workload with elective workload, and taking early decisions to reschedule future elective work.

These approaches should be evaluated and applied more generally to improve workload management. The most important variable to be managed is the pattern of patient admissions to the service, but all sources of variability should be considered as opportunities for achieving a smoother workload.

To a significant extent, the forecasting and smoothing steps should be integrated. The initial flow in the basic forecast should be modified by smoothing processes. This "smoothed" forecast should then be evaluated against capacity to consistently meet the need for care.

Step 3: Estimating patient-generated staffing

Once smoothing has been optimised and a reliable forecast made of the numbers, general nature and distribution of patients who will be admitted for care, the next step is to generate the basic staffing plan. This needs to be completed at each service level, and is the responsibility of the nurse or midwife in charge of that service, area, unit or ward. These nurses and midwives should apply their expert judgement to the forecast, utilising decision-support tools, to arrive at a basic staffing plan.

The staffing plan should identify the numbers, types and skill mix of nurses or midwives required on an hour-by-hour basis. The plan is still incomplete at this stage, however, because it makes no allowance for the times when staff are unavailable for work, or for the other workload components and moderating factors outlined in Chapter 4b to 4g. The next three steps involve calculating the additional staff needed to meet these requirements.

Step 4: Estimating non-patient-generated staffing

In order to achieve the outcomes described in Chapter 4c, "Creating and sustaining quality and safety", and in Chapter 4e, "Acquiring and using knowledge and skills", provision must be made for the work involved. The nature and extent of this work will vary according to the characteristics of the particular service, and of the nurses or midwives employed. For example, a service that is introducing new clinical interventions, or that employs relatively

inexperienced staff, will need to allow more time for training than a service where relatively experienced staff are engaged in work they are familiar with. Similarly, an area with high turnover will have a greater requirement for orientation time (Chapter 4e).

Estimating the staffing allowance to be made for the work of creating and sustaining quality and safety, and for acquiring skills and knowledge, should be the responsibility of the nurse or midwife in charge of the area, unit or ward, in conjunction with the nurse or midwife in charge of the overall service. Informed expert judgement is required to complete this step.

Step 5: Estimating the effect of other moderating factors

The cultural environment (Chapter 4b), leadership and authority (Chapter 4d), the wider team (Chapter 4f), and the physical environment, technology, equipment and work design (Chapter 4g) must all be considered for the way in which they affect staffing effectiveness. Each of these factors has the potential to influence, positively or negatively, the effectiveness of the nursing or midwifery staff available to complete the work required.

A positive cultural environment will increase the capacity of the system to cope with unexpected events and workloads that temporarily exceed intended limits. This may allow a leaner staffing plan than would otherwise be the case. Closely related to this is the way in which leadership and authority are delegated within a service. If nurses in the clinical workplace have limited authority to make decisions that are important to patient outcomes, patients will tend to spend longer in the service than would be the case if such decisions were made and acted on more promptly. Any reduction in patient complications and length of stay provides the opportunity for relatively fewer staff to be required for the same patient group.

The moderating effects of the wider team and the physical environment and technology act in an even more direct way to influence staffing effectiveness and workloads. The work normally undertaken by staff such as specialist doctors, pharmacists, physiotherapists and clerical workers may arise at any time. In their absence, that work must either be done by someone else, or delayed until they are back on duty. Nurses and midwives are the staff members who are present 24 hours a day, seven days a week. Inevitably, it falls to them to pick up work that is not done by others. It cannot be assumed that if other staff groups are not available, nurses and midwives can simply build the work normally undertaken by these groups into their own workloads. If the decision is made not to provide 24-hour, seven-day cover by staff providing other patient-related services, nursing and midwifery staffing must allow for any additional work and training required as a consequence. The design of the work environment and the availability and suitability of equipment and technology can also markedly increase or reduce staffing effectiveness and workload.

The sum effects of the factors outlined above are not readily quantifiable, but they must be taken into account when planning staffing. As in Step 4, informed expert judgement should be used to estimate the impact of these factors on the staffing plan.

Step 6: Provision for leave

Steps 1 to 5 enable the basic number and skill mix of nursing and midwifery staff required on a day-by-day basis to be determined. The final step is to make provision for the times when these staff members will not be at work. This is a relatively simple mathematical exercise. It

requires the amount of time that staff will be on leave (annual leave, sick leave, parental leave, special leave) to be estimated and built into the total staffing plan. (Note that study leave should be provided for in Step 4.)

It is essential that these estimates are realistic. A common planning flaw is to ignore the historical observation that nursing staff generally have significantly higher rates of sick leave than other health staff, and to make provision based on the sick leave rate for general staff, or even on some lesser "ideal" rate. This can have a compounding effect if increased rates of sick leave are due to unhealthy workplace conditions, which are then made worse by an inability to replace nurses who are off work because they are unwell.

The estimate must not only make allowance for mandated leave, but also allow for differences arising from workforces and workplaces with different characteristics. The example of a stressed workforce having high rates of sick leave highlights the fact that careful planning is required to ensure good provision for leave, as an essential part of any strategy to break a cycle of workplace distress.

Step 7: Fine-tuning and budgeting

The systematic planning process outlined above should be completed well in advance of implementation, to allow the effective management and integration of the patient and staffing management systems. Before the staffing plan is finalised, it should be tested against the patient forecasts.

If this testing shows that, at any point, the patient forecast will exceed the capacity of staff to meet patient needs, then steps should be taken at this early stage either to increase staffing, or to reduce the patient forecast to a level that can be met. Failure to do so is likely to result in undesirable outcomes, such as short-notice cancellation of elective procedures, failures in standards of care, and staff distress and decisions to leave.

It is critically important to the integrity of the entire process that, once the staffing requirements have been matched to the forecast workload, this is the basis on which budgeting decisions are made. Budgets must fit staffing requirements, instead of staffing being made to fit budget requirements. Where the forecast workload requirements exceed the available budget, steps must be taken either to increase the budget allocation, or to reduce the level or quality of services offered, or to modify parts of the system to optimise efficiency and resource utilisation. To do otherwise is inappropriate and undermines the goal of safe and effective healthcare delivery.

Step 8: On the day

The nurse or midwife in charge uses professional judgement and available information to match the right nurse to deliver the right care with the right competencies to the right patients. The nurse or midwife in charge considers the impact of the cultural environment (4b), and the work related to quality and safety (4c), authority and leadership (4d), acquiring and using knowledge and skills (4e), and the physical environment, technology, equipment and work design (4f) is allocated appropriately. This may include allocation to members of the wider team (4f).

Appropriate direction and supervision of the allocated workloads by the nurse or midwife in charge occurs throughout the shift to ensure that each nurse or midwife will achieve the

planned care in the appropriate timeframe, and adjustments are made as needed (i.e., patient reallocation or nurse reallocation).

The nurse or midwife in charge is supported by the broader organisation to manage the competing priorities in the workflow.

Step 9: Incident responsiveness

Given the challenges of delivering health services that combine both elective and acute care, it is inevitable that there will be occasions when unexpected surges in demand exceed the capacity of the system. Therefore, staffing planning must include the development of a detailed and workable escalation plan, to manage those occasions when workload surges beyond the capacity of available staff to cope. The system must ensure that, where any nurse or midwife identifies that the limits of safe practice are at risk of being breached, their professional judgement is acted upon, with an immediate and appropriate response to resolve the situation.

Having detailed and responsive escalation plans in place safeguards patients and staff, and ensures that the system returns quickly to safe operation. The plan needs to include indicators to provide an early warning system and de-escalation measures, with relevant authorities attached to each step.

Step 10: Review

The process of review and fine-tuning should continue from the completion of the staffing plan through to its implementation on a daily basis. Most important is ongoing review of the patient forecast, as this is the main driver of the staffing plan. This needs to be done monthly, weekly, daily and hourly in order to identify variance as early as possible. Whenever significant changes in key assumptions are identified, it is essential that adjustments are made to maintain the operational effectiveness of the plan.

For example, it may become clear that the number of patients expected to be admitted to a given area in two weeks' time will exceed the planned capacity of that area. Steps should be taken immediately to maintain the operational effectiveness of the plan. Failure to review, or failure to act on identified changes in planning assumptions, will reduce the effectiveness of the planning steps previously completed.

Early and ongoing attention to the process of review and fine-tuning is essential, because the range of options available to manage a workload surge that exceeds planned capacity becomes increasingly limited as implementation draws closer. On the actual day and hour of implementation, nurses, midwives and managers are frequently powerless to do anything other than "just get on with it".

The planning cycle is continuous and ongoing. It should be constantly reviewed and utilised to inform subsequent annual forecasting and planning. Appropriate targets and monitored indicators need to be part of the plan.

APPENDIX I: Background to the Committee of Inquiry

Two decades of health reforms

During the mid 1980s the New Zealand health system underwent major reviews of services, driven by the need to seek efficiencies. All hospitals and many community-based services were examined. One response to manage cost pressures was to reduce nursing numbers. The concerns of nurses about their increasing workloads went largely unheeded. Between 1989 and 2000, the average length of stay of medical and surgical patients fell by 20%; over the same period, nurse numbers were reduced by 36%.[1]

The introduction of the Employment Contracts Act 1991, by deconstructing a national award for nurses, hindered a national approach to the participation of nursing staff in the "management of change", and reduced the ability of expert nursing judgement to inform decision-making. A second wave of health reforms in the mid 1990s brought a greater demand for efficiencies, with the emphasis on pushing patients through the system more quickly. This had a flow-on effect to the community, with workload pressure shifting to the Community Nursing or District Nursing services. Again, there was a lack of meaningful tools to measure workload, and the associated provision of activities where service contracts did not adequately factor in workload requirements.

The workloads of nursing staff rose to unmanageable levels in some places. The recruitment and retention of nurses became a major problem. Nurses reported a loss of job satisfaction, stemming from their inability to provide complete care, and concern for their patients and for their own professional safety.

During the 2001 wage negotiations, nurses expressed their concerns about unsafe staffing. NZNO members sought some form of legislated or mandated minimum levels of staffing to give them some certainty as to workloads. By the 2004 bargaining round, nurses were signalling that the development of an enforceable mechanism to regulate staffing levels was a key issue. The NZNO launched a booklet, *Nursing the System Back to Health*, to support a claim for mandated nurse/patient ratios as the way to ensure safe numbers of nurses on each shift to deliver patient care.

Both parties agreed that nurse/patient ratios alone would not address all of the issues involved in safe staffing. An agreement was therefore reached to set up a Committee of Inquiry to investigate the workload issues of nurses and midwives, and to develop sustainable solutions.

Changes in supply and demand for nursing care

The Committee of Inquiry was set up in response to nurses' concerns about patient safety, unmanageable workloads, and the quality of the work environment. While the New Zealand results of the 2004 National Survey of New Zealand Hospital Nurses (conducted by Dr Mary Finlayson) showed that the majority of nurses believed the quality of care being delivered was good, only 37% reported that there were enough staff to get the work done, and 40% reported that there were enough registered nurses to get the work done.[2] Interestingly, New

Zealand rated higher than other countries in the study, which suggests there is a better platform on which to develop improvements.[3]

In a survey of DHB Directors of Nursing, conducted during the SSCOI process, just four of the fourteen respondents thought that staffing was adequate to deliver professional nursing care. Nurses themselves are reporting an increasing burden of care. Typically, they have reached medium levels of burnout, and 32% are signalling their intention to leave their current job within the next year.[4]

It is clear that the need for nursing care is set to rise. A number of factors are involved. First, the New Zealand population is ageing, which is a key determinant of demand for services. Statistics New Zealand's projections are for an overall population growth of 16% between 2001 and 2021, to 4,505,000. The number of people aged 65 and over is projected to increase by 72%, to 792,000. The percentage increase in the number of older people in the Maori, Pacific and Asian populations is projected to be even greater.[5] Second, healthcare is becoming more complex. More people are living with lifelong conditions, and the rates are increasing in line with both increased longevity and changing lifestyles.

At the same time, the average length of stay in hospital is being reduced. Over the last fifteen years, developments in models of care have driven average length of stay down by taking out the convalescence and preparation stages, and altering the overall case complexity. As mentioned above, the average length of stay of medical and surgical patients fell by 20% between 1989 and 2000.[6]

This has affected the demand for nursing care. Ward nurses are frequently heard to say that patients today are more dependent than before. Lower average length of stay and higher patient turnover (with multiple patients using the same bed or chair in one day) have effectively increased the volume of work to be completed in the same time period.[7] Thus there is a higher demand for nursing care, as shown in Figure 1.

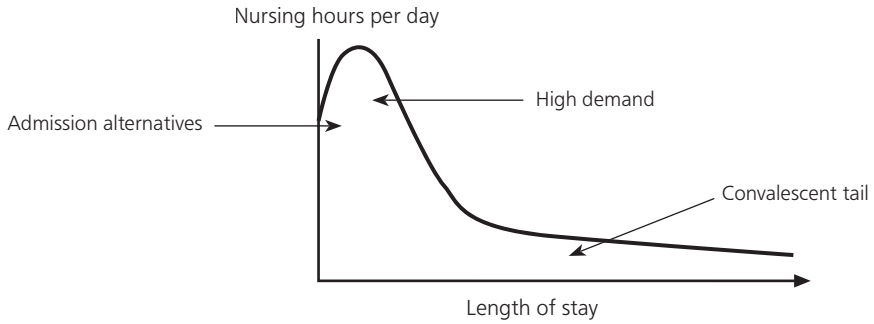


Figure 1. Typical medical pattern of length of stay.

Source: V. Hathaway, D. Picone, and C. Aisbett (1996). Version 3 ANDRG Nursing Costing Study. Sydney: Metropolitan Teaching Hospitals Consortium.

The highest costs occur during the first two days of the hospital stay. As average stays have become shorter, average costs have risen. The typical response to manage cost pressures has been to reduce nursing numbers.[8]

Patient demand and nursing and midwifery staffing

The Committee of Inquiry surveyed the DHBs to establish how they measured patient demand for nursing. Many provided more than one answer (see Table 1).

Type	Number	Approach
Dependency System: variable nursing hours per patient day	3	Bottom up – Factor-based
Care Planning	2	Bottom up – Interventions
Fixed nursing hours per patient days	7	Top down – Staffing Norms
Ratios	3	Top down – Staffing Norms
Professional Judgement	2	Top down – Consensus

Table 1. National survey of systems used to forecast patient demand for nursing.

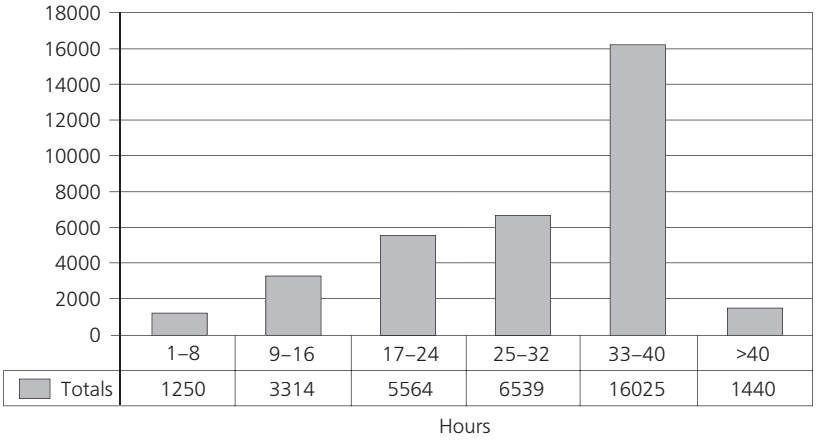
While most hospitals had a means of establishing nursing levels, only five used direct measurement of patient demand. Only two reported that their system was effective in predicting patient demand for nursing.

All respondents had a Duty Manager of some form on all shifts. But only four reported that one nurse in the team had fewer patients and was the first line manager of the shift. Only two indicated that their nurse staffing included dedicated nursing leadership at team level after hours.

Managing peaks was cited as a problem. Most reported that full-time equivalent staffing did not meet demand over recent years, and they had vacancies that were difficult to fill. The reasons given included: rural position less attractive; regional competition between DHBs; recruitment issues; inability to back-fill and release staff, leading to turnover; consistent DHB deficit; and difficulty recruiting to some specialities.

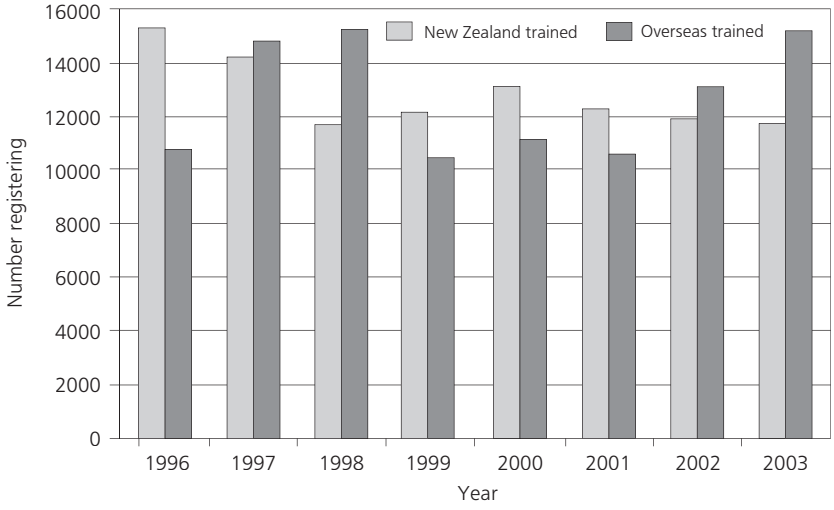
Statistics on the nursing workforce

Nurses represent 65% of the New Zealand healthcare workforce.[9] In 2004, there were 46,700 nurses with annual practising certificates (APCs). However, 4,452 registered nurses with current practising certificates were not actively employed in nursing. Almost two-thirds of the active nursing workforce were aged over 40, with the average age being 47. Nurses worked in a variety of settings, with 57.1% working in health institutions, and fewer than 20% working in primary healthcare. Half of the nurses worked four or more days per week, and just under one-third worked three days per week or less.



Graph 1: Hours of work for registered nurses with APCs in 2004.

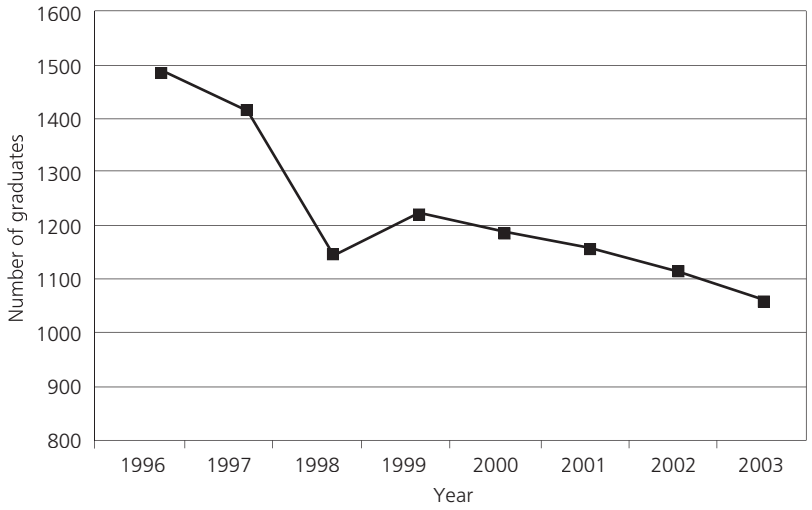
New registrations tended to fall in the late 1990s, before rising in the early 2000s, with total new registrations in 2003 achieving the same level as in 1996. In 2002 and 2003, registrations of overseas-trained nurses were higher than registrations of New Zealand-trained nurses.



Graph 2: New Zealand nursing registration rates 1996-2003.

Source: Department of Labour (2005); Nursing Council of New Zealand Annual Reports.

The annual number of nursing graduates has fallen over the last ten years.



Graph 3: Nurse graduate numbers 1996-2003.

Source: Department of Labour (2005); Nursing Council of New Zealand Annual Reports.

Growth in the nursing workforce is not keeping up with raw population growth, and is irrespective of growth in the population's health needs. The average ratio in 2004 was 853.5 nurses per 100,000 population.

In 2004 there were 2,307 active midwives, with an average age of 47 years. There were 1,473 with current practising certificates who were working in nursing; in 2005, most of these nurses did not renew their midwifery practising certificates. Core or hospital staff midwives totalled 56% of the active midwifery workforce. Workforce growth over the last three years has been 2.1%, while births have increased by 3.75%. There are concerns that graduate numbers are inadequate, given workforce attrition and birth rates.[10]

It has been reported that "the percentage of New Zealand trained nurses and midwives remaining active in the nursing profession in New Zealand in the first three years post registration declined from 81% in 1990 to 60% in 1998".[11]

In a recent survey, employers reported having difficulty recruiting and retaining nurses and midwives. The key issue reported for the profession was occupational detachment (i.e., nurses and midwives voluntarily leaving employment).[12]

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3 The 2001 National Survey of New Zealand Hospital Nurses was part of the Hospital Restructuring: Patient Outcomes and Nursing Workforce Implications study which examined hospital restructuring in New Zealand since 1988. The study was repeated in 2004. The study is associated with the International Hospital Outcomes Study led by Professor Linda Aiken and colleagues from the University of Pennsylvania. It is currently being undertaken in sixteen countries including New Zealand (Aiken et al., 2001; Gower and Finlayson, 2002).

4 Finlayson (2005).

5 New Zealand Institute of Economic Research (2004). Ageing in New Zealand and Health and Disability Services: Demand Projections and Workforce Implications 2001–2021.

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APPENDIX II:

Terms of Reference

The Committee of Inquiry is a response to the NZNO claim for enforceable fixed nurse or midwife to patient ratios and nursing and midwifery support to be included in the MECA. DHBs have acknowledged the concerns giving rise to this claim, and have undertaken in good faith to address them. Their view is that more sophisticated tools are required to address the issues arising here, and can be developed to meet the DHBs' and NZNO's objectives. The parties agree that in undertaking this Inquiry, they are bound by the good faith requirements of the Employment Relations Act to meet its objectives, and that all the remedies available therein to enforce good faith will be available to them in relation to this process.

1. Objective:

1.1 To develop and implement a system or systems of nursing and midwifery staffing levels which provide:

- Efficient and safe services to patients and consumers
- Manageable and safe workloads
- Acknowledgment of the professional nature of their practice and time and support to maintain professional standards

1.2 To agree on sustainable solutions to identified issues

1.3 To ensure that evidence-based best practice is used in all DHBs, and avoid duplication of resources and effort

1.4 To address the concerns raised in the MECA negotiations regarding these issues in a way that has the confidence of nurses and midwives and provides a mechanism for nurses and midwives to respond immediately if workloads exceed the determined levels.

2. Scope:

2.1 The scope of this Inquiry shall include the following:

- Service provision
- Models of care
- Patient classification systems e.g. acuity measures
- Patient flow
- Skill mix (RN/RM/EN/HCA mix)
- Skills mix (range of RN/RM skills – Levels of Practice)
- Infrastructure (includes senior nursing and midwifery support)
- Workloads
- Nursing and midwifery care intensity levels / workload measurement
- Healthy work environment
- Work/life balance
- Professional development opportunities

2.2 The key focus will be patient and nursing outcomes.

3. Committee of Inquiry:

3.1 The Committee of Inquiry shall comprise agreed numbers of DHB and NZNO representatives to be determined by each party, plus representatives of the Ministry of Health and advisors to the Committee.

3.2 Total numbers on the Committee of Inquiry shall be jointly determined.

3.3 An independent Chairperson agreed by both parties shall chair the Committee of Inquiry.

4. Timeframes:

4.1 The Inquiry shall commence within 2 months of settlement of the national NZNO / DHB MECA.

4.2 The Committee of Inquiry shall establish a Project Plan to be agreed by the CEO National Group and NZNO within two months of its first meeting, including milestones and appropriate timeframes.

4.3 It shall report every two months thereafter to the CEO National Group through DHBNZ and to NZNO through its Head Office.

4.4 Progress shall be reviewed against the Project Plan and reported at 6 monthly intervals.

4.5 The Inquiry shall be concluded and action commenced on the ratified implementation plan no later than July 2006, or earlier if practicable.

5. Secretariat/Budget/Support Services:

5.1 Adequate resources will be provided to the Committee of Inquiry to ensure the efficient and timely operation of the Inquiry and ensure that both employers and employees can be fully involved in it.

5.2 A budget will be established by the Committee of Inquiry along with the Project Plan within the first two months.

6. Ratification Process:

6.1 The recommendations arising from the Inquiry shall be ratified by the CEO National Group and NZNO respectively before implementation. The Committee of Inquiry is not prevented from making recommendations required to meet objectives due to current funding constraints. If DHBs are unable to meet any recommendations from within existing budgets, a joint approach will be made to Government.

Appendix III: List of Committee Members

Diana Crossan (Chair)

Glenda Alexander
NZNO Industrial Advisor

Geoff Annals
Chief Executive, New Zealand Nurses Organisation

Taima Campbell
Executive Director of Nursing, Auckland District Health Board

Jim Green
Chief Executive, Tairawhiti District Health Board

Sue Hayward
Director of Nursing Services, Christchurch Hospital

Jane Lawless
Practice Development Facilitator, Waikato District Health Board
(NZNO member representative)

Bernie McKeany
Operations Manager – Nursing and Clinical Services, Waikato Hospital

Jane O'Malley
Director of Nursing and Midwifery, Westcoast District Health Board
(NZNO member representative)

Gyanendra (GP) Singh
Employee Relations Specialist, Auckland Region

Sue Wood
Director of Nursing, MidCentral Health

Ministry of Health Participants:
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Principal Advisor, Ministry of Health

Mark Jones
Chief Advisor Nursing, Clinical Services Directorate, Ministry of Health

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