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Review of Postgraduate Nursing and Midwifery Education in Victoria

Final Report

September 2015

Foreword

A note about the scope of the project

This report documents a review of postgraduate nursing and midwifery education in Victoria, in the main, to examine the factors that impact on the uptake of postgraduate education by these groups of health professionals in Victorian public health services.

In commissioning this project, Nursing and Midwifery Workforce in the Department of Health and Human Services indicated the review should focus specifically on postgraduate education that increases current skills or knowledge, or develops new skills and knowledge in new professional areas, for practitioners who already have their entry-level qualifications. This includes courses that lead to Graduate Certificate, Graduate Diploma or Masters qualifications.

The project scope specifically did **not** include postgraduate courses that result in entry-level qualifications for nursing or midwifery, such as a Graduate Diploma of Midwifery or a Master of Nursing Science entry-to-practice course. Master of Nursing (Nurse Practitioner) courses were also not included, as these are entry-to-practice qualifications at nurse practitioner level.

Although not specifically excluded from the scope of the review, postgraduate mental health courses were not considered a focus of the project. This reflects, in part, that scholarships for these courses are not the responsibility of Nursing and Midwifery Workforce, but also the fact that postgraduate qualifications are a prerequisite for nurses wishing to work in mental health above the Registered Psychiatric Nurse level 3 classification. Moreover, postgraduate mental health nursing initiatives will be reviewed as part of other work being undertaken by the department.

Since the courses within the scope of this project require applicants to hold, at a minimum, a Registered Nurse registration, the project was effectively a review of specialist postgraduate nursing education. Of course, Registered Nurses may also be midwives and therefore throughout this report, reference is made to *nurses and midwives* or *nursing and midwifery*.

However, with respect to midwives, it is important to note the review addresses postgraduate education for registered midwives, as opposed to postgraduate education in midwifery.

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Abbreviations

ANUM	Associate Nurse Unit Manager
ADON	Associate Director of Nursing
ACT	Australian Capital Territory
ACU	Australian Catholic University
ACN	Australian College of Nursing
AHPRA	Australian Health Practitioner Regulation Agency
AIHW	Australian Institute of Health and Welfare
ANMF	Australian Nursing and Midwifery Federation
BHS	Ballarat Health Services
CEO	Chief Executive Officer
CNS	Clinical Nurse Specialist
CSPs	Commonwealth Supported Places
CPD	Continuing Professional Development
DHHS	Department of Health and Human Services
DON	Director of Nursing
EPs	Education Providers
EBA	Enterprise Bargaining Agreement
EDON	Executive Director of Nursing
EDONM	Executive Director of Nursing and Midwifery
EGHS	East Grampians Health Service
ED	Emergency Department
EN	Enrolled Nurse
FTR	Failure to Rescue
FAQ	Frequently Asked Question
FBT	Fringe Benefits Tax
FTE	Full-time equivalent
GNP	Graduate Nurse Program
HWA	Health Workforce Australia
HWNZ	Health Workforce New Zealand
HREC	Human Research Ethics Committee
ICU	Intensive Care Unit
LOS	Length of Stay
LGA	Local Government Area
LHD	Local Health District
MCH	Maternal and Child Health
MOU	Memorandum of Understanding
MWH	Mercy Women's Hospital
MBH	Mildura Base Hospital
NHS	National Health Service
NICU	Neonatal Intensive Care Unit
NSW	New South Wales
NHMRC	National Health and Medical Research Council
NHWDS	National Health Workforce Data Set
NRAS	National Registration and Accreditation Scheme

NT	Northern Territory
NMBA	Nurses and Midwifery Board of Australia
NUM	Nurse Unit Manager
N&M	Nursing and Midwifery
NMW	Nursing and Midwifery Workforce
NSOs	Nursing Sensitive Outcomes
PICU	Paediatric Intensive Care Unit
PG	Postgraduate
RN	Registered Nurse
RPN3	Registered Psychiatric Nurse level 3
RIPRN	Rural Isolated Practice Registered Nurse
RCH	Royal Children's Hospital
SA	South Australia
T&D	Training and Development
UK	United Kingdom
UoM	University of Melbourne
UCC	Urgent Care Centre
WMH	Werribee Mercy Hospital
WA	Western Australia
WCHRE	Western Centre for Health Research and Education
WH	Western Health

Executive Summary

Nursing and Midwifery Workforce (Health Workforce, Department of Health and Human Services; the department), is responsible – amongst other things – for policies and programs that address key aspects of the entry-level education, specialist training and ongoing professional development of nurses and midwives in Victoria.

One of its important programs is the Training & Development grant (Nursing and Midwifery), which is part of the overall Training & Development grant to public health services that supports costs associated with teaching, training and research activities. Another key program is the postgraduate scholarship program for registered nurses and midwives working in the Victorian public health sector in areas of clinical practice where additional postgraduate studies are considered to be an important workforce requirement.

The *Postgraduate Nursing and Midwifery Education* component of the Training & Development grant (Nursing and Midwifery) supports the clinical component of postgraduate education programs. Recent Training & Development grant data has revealed a significant reduction in requests for funding under this stream since 2012, as well as a decline in the uptake of postgraduate scholarships in rural/regional Victoria.

The trends observed in departmental data, together with anecdotal reports from Directors of Nursing about declining interest in postgraduate study, were key drivers for Nursing and Midwifery Workforce to establish this review of postgraduate nursing and midwifery education in Victoria. The purpose of the review was to determine the full range of factors impacting on the uptake of postgraduate nursing and midwifery education. In addition, the review was asked to examine the link between patient outcomes and having a nursing and midwifery workforce trained at postgraduate level. It was intended the review would identify those aspects of the system where the department can most efficiently offer support, through a robust evidence base that informs future initiatives, policy settings and resource allocation.

This report details the outcomes and findings of the project, which was conducted over a six-month period commencing in February 2015.

The report is presented in six sections.

Section 1: Introduction – provides context and background for the project and describes the approach adopted for the conduct of the project and the methodology used.

Section 2: Literature Review – presents the findings of a thorough analysis of the academic literature on relevant aspects of postgraduate nursing and midwifery education. Findings are presented against the two key project questions.

Section 3: Project Findings – presents the findings from the various project activities involving data collection from stakeholders and key informants. These included: development of a logic model that would provide a framework for subsequent stakeholder consultations; analysis of data received from the department and the Australian Institute of Health and Welfare; desktop research; interviews with key informants (including other jurisdictions, education providers, professional bodies, a private healthcare provider, senior departmental managers and others); focus groups; online surveys; and case studies.

Section 4: Discussion and Recommendations – discusses the aggregated findings in the context of the major issues identified through the review and presents eight recommendations for action by the department.

Section 5: Bibliography – includes all references cited in the literature review.

Section 6: Appendices – includes information relevant to the project methodology, as well as the logic model, the results of the Australian Institute of Health and Welfare National Health Workforce Data Set analysis and a tabulated list of Victorian postgraduate course offerings.

Summary of key findings

- An estimated 1,200 stakeholders provided input to this review of postgraduate nursing and midwifery education in Victoria through consultations that included online surveys, 22 focus groups, four cases studies, 18 key informant interviews and three written submissions.
- The major barriers to the uptake of postgraduate education by nurses and midwives identified by the review fall into three categories:
    - *Individual issues* primarily relate to the difficulty of juggling family, financial, work and study commitments.
    - *Financial issues* include the combination of the cost of courses, reduced income during the period of study and the costs associated with travel and accommodation. This last issue is principally an issue for rurally based nurses and midwives.
    - *Structural issues* mainly relate to the circumstances within health services that reduce their ability to promote or support postgraduate study for their staff. These include lack of staff available to provide backfill for nurses that are studying (particularly in rural areas), limited local resources (human and material) for education, and lack of organisational (particularly senior management) support for education. Another structural issue that is important in rural areas is the lack of locally offered postgraduate course options.
- Major enablers of postgraduate education were found to be:
    - supportive health service cultures that embrace the value of education and training
    - 'discovery programs' that showcase specialty practice and professional career opportunities
    - study options that are practitioner-friendly, including online and locally offered courses
    - scholarships and other financial support.
- Barriers were found to exist everywhere (with the exception of those barriers that are rural-specific), whereas implementation of the enabling strategies has been variable. Some health services have been very proactive in their approach to postgraduate education of their nursing and midwifery workforce and have been innovative in the strategies they have developed. In these health services, while the barriers still exist, the *impact* of those barriers on the uptake of postgraduate education has been effectively reduced.
- Active discouragement of nurses and midwives in relation to postgraduate education is still occurring.
- Regarding the Department of Health and Human Services scholarships:
    - These are highly valued, although most informants believe the scholarship amount should be increased to cover a larger proportion of course fees.
    - Levels of awareness of the scholarships varied, in part reflecting the difficulty of finding information on the department's website.
    - There are equity issues, with some individuals able to access multiple sources of financial support while others receive nothing.
    - Rurally based students have additional travel and accommodation costs associated with their postgraduate study, but the scholarship does not include any rural loading to take account of this.
- With respect to the relationship between patient outcomes and a postgraduate-trained workforce, stakeholders in all categories perceive benefits arising from nurses and midwives undertaking postgraduate study. Benefits were identified for the individual practitioner, for patients and for the health services. However, there were no examples identified of health services actively monitoring or measuring the perceived benefits to patients or health services.
- Most health services have an *ad hoc* approach to realising the benefits of having a postgraduate-trained nursing and midwifery workforce.

Summary of recommendations

It is recommended that the department:

1. Facilitate a dialogue between health services, education providers and professional bodies to address the issue of postgraduate course fees and other access issues.
2. Investigate the level of need – and the most appropriate option for implementation – for travel-related assistance to rurally based postgraduate nursing and midwifery students.
3. Undertake further analysis of the tiered scholarship model to explore its application within the Victorian environment.
4. Review its communications strategies relevant to the postgraduate nursing and midwifery scholarship programs, specifically:
   - Improve the content and ease of access to information on the website.
   - Publish information as part of a series of Frequently Asked Questions (FAQs) on its website, as well as other relevant publications, that addresses the underlying rationale of the scholarships program and the practical reasons for the annual timeline of decision-making.
   - Improve the accessibility of information it provides on taxation arrangements relevant to its scholarships and self-education expenses.
   - Consider longer term strategies for improving communication that could include establishing a social media presence and creating a central repository of information about all scholarships available for postgraduate nursing and midwifery study.
5. Determine the proportion of postgraduate nursing and midwifery students who are accessing multiple sources of funding.
6. Work with the relevant bodies to enable the development of reliable nursing and midwifery workforce datasets that include up-to-date information about the postgraduate qualifications of these health professionals.
7. Encourage projects that examine the usefulness of various nurse sensitive outcome (NSO) measures in monitoring the benefits of a postgraduate-trained nursing and midwifery workforce.
8. Explore mechanisms for providing guidance to health services on a range of issues relevant to developing, supporting and utilising a postgraduate-trained nursing and midwifery workforce.

1 Introduction

1.1 Postgraduate nursing and midwifery education

The drive to improve the safety and quality of healthcare has gained considerable momentum over the last fifteen years. This quality improvement movement has emphasised the importance of systems-based solutions, rather than focusing upon the attributes of the individual clinicians delivering health services. Nonetheless, there is still a recognition that high quality healthcare requires a highly skilled and well-trained health workforce.

In the nursing and midwifery workforce, the need for specialised training has increased, in part, because of general trends and developments within healthcare, namely:

- the specialised nature of healthcare and the use of advanced medical technologies
- an expanded scope of practice in a number of domains, as it is recognised nurses and midwives, with suitable training and experience, can deliver services that were previously only provided by medical practitioners
- an increased emphasis upon interdisciplinary, team-based healthcare service delivery.

In Australia, education providers have responded to this demand for specialised qualifications by offering an increasingly diverse range of postgraduate courses, diplomas and degrees. These are being delivered in modalities designed to facilitate participation by employed nurses and midwives (i.e. distance-based courses utilising online technology, out-of-hours lectures, etc). Countering this to some extent, there have been changes to the funding and organisation of higher education, which have had the effect of discouraging nurses and midwives from undertaking further education. This is despite there being financial assistance for nurses and midwives to undertake postgraduate education, through scholarship and grant schemes at both federal and state level.

Postgraduate education for nurses and midwives is not only an issue in the context of changes to scope of practice and the delivery of clinical care. It is also highly relevant in addressing concerns about retention and productivity of the nursing and midwifery workforce. Health Workforce Australia (HWA), before its incorporation into the Commonwealth Department of Health, had commenced a program in this area. HWA's projections identified retention and productivity of nurses and midwives as significant factors in reducing the projected gap between supply and demand for nurses by 2025. HWA was developing recommendations for change in three areas, all of which have a significant postgraduate education and training component, specifically:

- building nurse leadership capacity
- improving nurse retention through early career preparation, support and provision of opportunities
- improving nurse productivity by enabling and encouraging innovation[1].

Notwithstanding the acknowledged importance of postgraduate education to nursing practice, retention and productivity, the extent of uptake of postgraduate study opportunities across the nursing and midwifery professions is not known. The major problem is that national workforce data in relation to postgraduate education is not routinely collected. The Australian Institute of Health and Welfare (AIHW) produces an annual report on the Australian nursing and midwifery workforce[2]. The report is based on surveys of the profession conducted by registration bodies. Until 2009, this survey was administered by the state-based registration bodies and some of the surveys included a question that asked nurses and midwives whether they had completed, or were in the process of completing, further education (defined as including hospital-based certificates and tertiary qualifications in nurse management, clinical practice and nursing education, while excluding in-service/continuing education sessions, refresher or re-entry courses or courses of less than six months duration). The results for this survey in 2009 found that 44.6% of Australian nurses and midwives reported a postgraduate qualification, although the averages for surgical and medical areas were only in the mid-30 percent range. Victoria was slightly above the national average with 45.2 percent of nurses and midwives reporting a postgraduate qualification.

The data presented in the AIHW nursing and midwifery workforce report is now based on the results from a survey administered by the Australian Health Practitioner Regulation Agency (AHPRA) and which forms part of the registration renewal process under the National Registration and

Accreditation Scheme (NRAS). To date, these surveys have not included any questions about post-registration qualification and enrolment in courses.

Given the potential importance of postgraduate education in addressing a number of nursing and midwifery workforce issues, there has been very little work done in Victoria to examine the factors that impact upon uptake of postgraduate education by nurses and midwives. A study of postgraduate mental health nursing programmes in Victoria conducted in 2008 found that cost and workload issues were the main factors for not commencing, or not completing a course[3]. However, the issue has not been investigated since then. There has also never been a systematic review of the impact of postgraduate-trained nurses and midwives on outcomes within the Victorian health system.

1.2 Background to this project

Nursing and Midwifery Workforce (Health Workforce Branch, Department of Health and Human Services (DHHS; the department)), is responsible – amongst other things – for policies and programs that address key aspects of the entry-level education, specialist training and ongoing professional development of nurses and midwives in Victoria.

One of its important programs is the Training & Development (T&D) grant (Nursing and Midwifery), which is part of the overall T&D grant to public health services that supports the costs associated with teaching, training and research activities.

The T&D grant (Nursing and Midwifery) comprises two streams, namely *Graduate Nurse & Midwifery Programs* (for graduates in their first year of employment post-entry-level qualification) and *Postgraduate Nursing and Midwifery Education*, which supports the clinical component of postgraduate education programs. Recent T&D grant data has revealed a significant (i.e. 16.5 percent) reduction in requests for funding under the *Postgraduate Nursing and Midwifery Education* stream since 2012.

Another important initiative of the department is the postgraduate scholarships program for registered nurses and midwives working in the Victorian public health sector. These scholarships are in areas of clinical practice where additional postgraduate studies are considered to be an important workforce requirement.

While the department provides the funding for the scholarships, the responsibility for selection of scholarship recipients and dispersal of funds sits with health services (in metropolitan areas) and high-level regional committees. Decisions about scholarship allocations are intended to be based on local (or regional) workforce priorities. Recent departmental data suggests there has been a decline in the uptake of postgraduate scholarships in rural and regional Victoria.

The trends observed in departmental data, together with anecdotal reports from Directors of Nursing about declining interest in postgraduate study, were key drivers for Nursing and Midwifery Workforce to establish this review of postgraduate nursing and midwifery education in Victoria. The purpose of the review was to determine the full range of factors impacting on the uptake of postgraduate nursing and midwifery education (*project question #1*). In addition, the review was asked to examine the link between patient outcomes and having a nursing and midwifery workforce trained at postgraduate level (*project question #2*). Importantly, it was intended the review would identify those aspects of the system where the department can most efficiently offer support, through a robust evidence base that informs future initiatives, policy settings and resource allocation.

1.3 Approach

1.3.1 Project conduct and oversight

The project was undertaken by Darcy Associates Consulting Services, who assembled a project team of three consultants that included one practicing RN with postgraduate qualifications and experience as a nursing educator. The team was led by Dr Cohen, who was responsible for project management, liaison with DHHS and was the primary point of contact for project participants and stakeholders.

Oversight of the project was provided by a small DHHS Project Group comprising staff from Nursing and Midwifery Workforce. Additional advisory input on the project findings and recommendations was sought from Directors of Nursing and Education Managers from Victorian public health services.

1.3.2 Project scope

This review set out to address two key questions, specifically:

(1) What are the factors underpinning recent trends in uptake of postgraduate nursing and midwifery education in Victoria?

(2) What is the impact on patient outcomes of having a nursing and midwifery workforce trained at postgraduate level?

The project scope was considered in terms of three dimensions, specifically:

- the categories of nursing and midwifery postgraduate education that would be investigated
- the stakeholder categories that would be invited to participate
- the types of data collection activities that would be undertaken.

In terms of the categories of postgraduate education to be investigated, the department had determined the focus of this review would be on postgraduate education that increases current skills or knowledge, or develops new skills and knowledge in new professional areas, for practitioners who already have their entry-level qualifications. This includes courses that lead to Graduate Certificate, Graduate Diploma or Masters qualifications. The project scope specifically did **not** include postgraduate courses that result in entry-level qualifications for nursing or midwifery, such as a Graduate Diploma of Midwifery or a Master of Nursing Science entry-to-practice course. Master of Nursing (Nurse Practitioner) courses were also not included, as these are entry-to-practice qualifications at nurse practitioner level.

Although not specifically excluded from the scope of the review, postgraduate courses in mental health were not considered a major focus for the project, as postgraduate qualifications are a prerequisite for nurses wishing to work in mental health above the Registered Psychiatric Nurse level 3 (RPN3) classification. Moreover, postgraduate mental health nursing initiatives will be reviewed as part of other work being undertaken by the department.

To ensure the stakeholder consultations of the project were appropriate and relevant to the project questions, a model was developed showing entry-level and postgraduate education of nurses and midwives in the context of patient care (see Figure 1). This model was helpful in identifying relevant stakeholder groups to include in the consultation processes and also in identifying the most appropriate approach to addressing the two project questions.

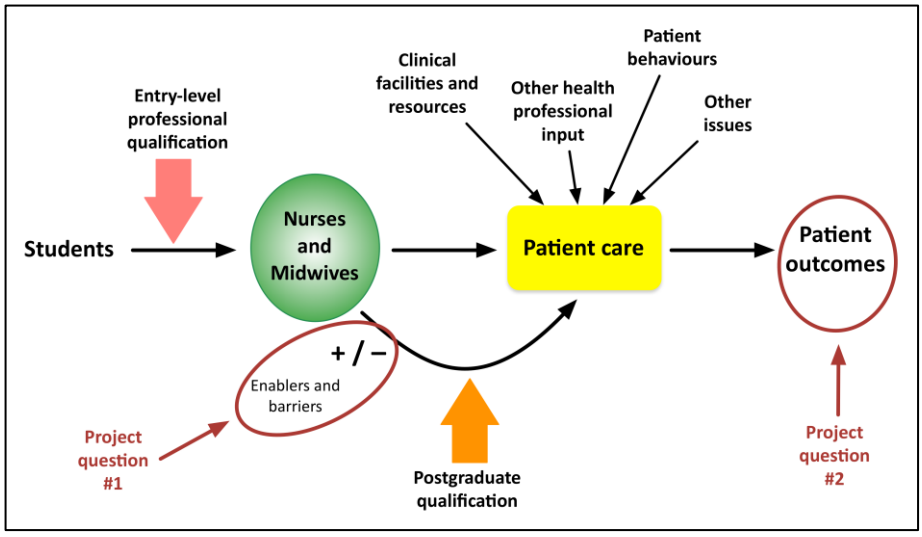

Figure 1: Postgraduate nursing and midwifery education in the context of patient care

As illustrated in the model, students obtain entry-level professional qualifications to become nurses and midwives and, in that capacity, contribute to patient care. However, the contribution of nurses

and midwives to patient care is only one factor that determines patient outcomes. The model also shows a pathway through which nurses and midwives obtain postgraduate qualifications. While those qualifications are expected to enable a more advanced contribution to patient care by nurses and midwives, it is nevertheless the case that other factors continue to contribute to patient outcomes. This point was very relevant in determining how to address project question #2, as discussed later in this section.

The model also shows that whether or not individuals undertake postgraduate education may be influenced by a number of enablers or barriers to participation in postgraduate study. A number of these enablers and barriers have been described in the literature, but determining which of these factors are relevant in the *Victorian* system and the relative importance of these factors in current postgraduate education trends is largely what was to be addressed in project question #1.

Another consideration relevant to project question #1 is the fact that postgraduate education of nurses and midwives is essentially a *supply and demand* model, with education providers on the supply side of the equation and the practitioners on the demand side and a range of factors driving behaviours on each side. Since supply and demand are interrelated and since many of the factors on the demand side become barriers or enablers to undertaking postgraduate study, it was deemed important to include informants in this project that could provide insights to the full range of factors relevant to the system. For this reason, education providers, representatives of nursing and midwifery professional bodies and senior managers of health services, as well as nurses and midwives, were invited to participate in the various data collection activities used to address project question #1.

As noted earlier, the model in Figure 1 provided important insights relating to project question #2, which sought to examine the link between patient outcomes and postgraduate training of nurses and midwives. The most significant of these insights was that demonstration of a causal relationship between postgraduate qualifications and improved patient outcomes would most likely be quite difficult, given the multi-factorial nature of inputs to patient care. Indeed, a recent literature review by Cotterill-Walker (2012) starts with the following introductory paragraph (references removed):

> *"It is recognised that continued education for nurses positively affects practice, but conclusive proof that this directly affects patient care is difficult to ascertain. Despite the acknowledged importance of evaluating the impact of nurse education on patient outcomes there are few studies which directly measure this, or explore cost benefit analysis. There is also no consensus on acceptable outcome measures and appropriate design methods for the evaluation of the impact of education in nursing."*
>
> Cotterill-Walker, S.M. (2012) *Nurse Education Today* 32: 57-64

Therefore, rather than attempting to correlate postgraduate education data with patient outcome data (an *outcome evaluation* approach), it was decided to utilise a *process evaluation* approach for project question #2 of this review. Such an approach is commonly used in the evaluation of systems where outcomes are mostly realised in the long-term and/or are the product of many factors. Applied to this project, the process evaluation approach began by asking the question, "*what are the mechanisms or pathways by which it is hypothesised/ expected that a postgraduate-prepared nursing and midwifery workforce will result in better patient outcomes?*" Therefore, a key first step in addressing project question #2 was to map the relevant pathways in a logic model, which then served as a framework that informed the consultations conducted with key stakeholder groups.

An important consideration for designing the data collection approach was that the department was seeking to understand the postgraduate education landscape for nurses and midwives, as opposed to identifying organisational arrangements that might constitute "best practice". This distinction was important, because a comprehensive environmental scan requires a different approach to stakeholder consultations than does seeking examples of good practice.

To maximise data collection from stakeholders, the project included a mix of interviews, focus groups, online surveys and written submissions. As the project plan was being developed, it was also decided to include four case studies in the data collection activities. As noted above, the purpose of the case studies was not to present examples of best practice, but rather to allow a more in-depth analysis of the circumstances within a single health service, potentially revealing the complex interplay of factors that produce the observed outcomes. To ensure adequate

representation of metropolitan, regional and rural perspectives, case study and focus group activities were conducted across the state.

The final consideration relevant to project scope was whether the data collection activities should be restricted to individuals and organisations in the public health sector. The T&D grants and scholarships administered by the department are only available to public health services and their staff. However, nurses and midwives move between the public and private sectors and postgraduate education activities in both sectors serve the overall health needs of the state. Therefore, it was decided that online surveys and written submissions would be open to stakeholders in both sectors, while focus groups and case studies were only conducted in public health services.

1.3.3 Project phases

The project was conducted in three phases across six months (Feb – July 2015, inclusive). The first phase was focussed on establishing the framework for the major data collection activities, through a literature review and development of a logic model. During this phase, contact was made with stakeholders in preparation for the data collection activities. The second phase included the major data collection activities, while the final phase involved data analysis and report preparation. The major tasks of each phase are set out in Table 1.

Table 1: Project phases and major tasks

Project phase	Major tasks
Phase I	▪ Literature review and desktop research ▪ Collection of data from organisational datasets ▪ Development of logic model ▪ Initial contact with stakeholder groups and organisations
Phase II	▪ Follow-up contact with organisations to arrange site visits ▪ Preparation of surveys, interview and focus group proforma ▪ Conduct of interviews, focus groups and case studies ▪ Collection of survey responses and written submissions ▪ Preparation of project interim report
Phase III	▪ Analysis of data ▪ Presentation of major findings and recommendations to DONs and Education Managers ▪ Preparation of draft and final project reports

1.4 Methodology

1.4.1 Ethical review

This project was not submitted for review by a Human Research Ethics Committee (HREC), as it was deemed to constitute a quality assurance (QA) project.

According to the National Health and Medical Research Council (NHMRC) in their March 2014 document *Ethical Considerations in Quality Assurance and Evaluation Activities*, HREC review of QA projects is not necessary unless any of the triggers for consideration of ethical review (as set out in Section (e) of that document) are present. After review by the department and the consultants, none of the seven listed triggers were considered to be present in this project.

Instead, the project team sought to ensure all aspects of the project were conducted ethically and in accordance with the principles set out in the *National Statement on Ethical Conduct in Human Research* (2007) and in accordance with all relevant privacy legislation.

1.4.2 Literature review

Academic literature relevant to this project was identified through searches of online databases, including Ovid, Medline Ovid and PubMed and education-related databases. Web-based non-academic literature, including reports from previous studies, was obtained through searches using the Google internet search engine.

Major search terms used singly and in combination included:

- postgraduate/post-registration nurse/nursing education/study
- postgraduate/post-registration midwifery education/study
- barrier(s)
- enabler(s)
- impact/effect on clinical practice/patient care/outcome
- nursing sensitive outcome
- (evidence of) benefit
- career pathway/outcome
- workplace support
- non-completion.

While no specific time limit was placed on the date of published research, the vast majority of relevant research was found to have been published since 1995. Where older literature was sourced, it was generally found to be of little relevance given the major changes that have occurred in postgraduate nursing and midwifery education since the mid-1990s.

1.4.3 Initial stakeholder contact and expressions of interest

For all stakeholder consultation activities, text for initial contact with stakeholders was drafted by the consultants and provided to departmental officers to be sent via their established lines of email contact with Directors of Nursing (DONs) and individuals in the nursing and midwifery sector. Email recipients were invited to opt-out if they did not wish their contact information to be provided to the consultants.

Once contact information was provided to the consultants, an email was sent that provided further information about the project and the nature of involvement/participation that was being sought, specifically:

- Individuals being invited to participate in interviews were asked to nominate preferred date, time and mode of interview.
- EDONs/DONs (or their delegates) were asked to complete an online form to indicate their interest in hosting focus groups at their health service, nominate their health service to participate in a case study, and indicate their willingness to disseminate information to their staff about focus groups, online surveys and written submissions.

1.4.4 Development of a logic model

A key task for the project was the development of a logic model that identifies the pathways through which it is anticipated health services realise the benefits of having a postgraduate-trained nursing and midwifery workforce.

To develop the logic model, a workshop was conducted with key informants from a range of stakeholder organisations including metropolitan, regional and rural public health services (including specialist hospitals and a major mental health program), private hospitals, universities and the department. Health service representatives covered a range of perspectives including EDONM, DON/DCS/Chief Nurse, Director/Manager of Nursing Education, Staff Development Manager, Postgraduate Coordinator and Senior Nurse.

The purpose of the workshop was to identify the major objectives and outcomes of having a postgraduate-trained nursing and midwifery workforce and reflect on critical inputs and processes for realising the benefits from the postgraduate skills and knowledge of staff.

1.4.5 Interviews with key informants

A list of interview topics was developed for each broad category of stakeholder group. The relevant list was provided to each informant ahead of the scheduled interview time.

Interview topics included the following (as appropriate for each key informant group):

- the importance of postgraduate education to setting/maintaining professional standards in nursing and midwifery

- the importance of postgraduate education to career pathways for nurses and midwives
- barriers and enablers that impact on the decision of nurses and midwives to undertake postgraduate education
- if their organisation offers postgraduate courses for nurses or midwives, the drivers for determining the content, format, mode of delivery and cost of their courses
- the role government policy and programs can play in promoting postgraduate education for nurses and midwives.

Interviews were conducted face-to-face for key informants located in Melbourne and by telephone for regional, interstate and overseas interviews. All interviews were completed in the period 19 March – 19 May 2015. A complete list of interviewees is provided at Appendix 1.

1.4.6 Survey development

Two surveys were constructed: one to be completed by nurses and midwives and the other by managers (this group included EDONs, DONS, NUMs, ANUMs, education managers, program directors, HR managers, quality managers and educators).

The two surveys were constructed using information obtained from the early findings of the literature review and desktop research, initial interviews with key informants (including DHHS staff), the logic modelling workshop and the first case study conducted at Mercy Public Hospitals Inc.

The surveys addressed the same major issues being canvassed in interviews, focus groups and case studies and contained the following main sections of questions:

- demographic information
- personal postgraduate study experience (past, current and future)
- if no previous experience or intention to study in the future, reasons for this decision
- the benefits of having a postgraduate-trained workforce
- financial support from DHHS for postgraduate nursing and midwifery education
- suggested improvements to the system.

While the majority of questions were identical in both surveys, there were a number of unique and modified questions in each survey that reflected the likely differences in experience and knowledge between nurses/midwives and managers.

The surveys were set up using the *SurveyGizmo* platform, which allows respondents to only answer questions relevant to them (based on their responses to one or more barrier questions) and to complete the instrument anonymously and online. Surveys were finalised following consultation with the department (see Appendix 2 for the survey targeted to nurses and midwives and Appendix 3 for the survey targeted to managers).

1.4.7 Collection and analysis of survey data

The links to the online surveys were distributed by the consultants through an email to the EDON/DON contacts, with a request for them to forward the link to relevant staff within their organisation. In addition, the consultants forwarded the link to a number of other individuals who had volunteered to forward the link to colleagues in their professional networks.

Surveys were open during the period 13 April – 18 May 2015. An email was sent to EDONs/ DONs in the week commencing 4 May, requesting they remind their staff about the survey before the closing date.

Analysis of survey responses utilised basic reporting functionality within *SurveyGizmo*, which also allows cross-tabulation of results and comparisons between different groups of respondents.

Statistical significance testing was only applied to some survey responses, where it was deemed relevant to determine whether there was a significant difference in the responses between two or more groups. For each group, the proportion of positive responses (i.e. those that met the specified criterion) was calculated as a ratio of all responses. The probability that a given proportion of positive responses was the same as for the rest of the groups was tested using the **prop.test**

function of the R statistical package (see http://stat.ethz.ch/R-manual/R-patched/library/stats/html/prop.test.html).

This test was two-sided (i.e. allowing for the group proportion to be smaller or larger than the rest of the groups) and assumed that the non-group data was also a sample.

A group's proportion of positive responses was deemed to be significantly different to the rest of the group if the probability (p-value) was less than 0.05, signified in results tables by '*'. Any p-values less than 0.01 were deemed to be highly significant and marked by '**'.

1.4.8 Selection of case study sites

The purpose of conducting case studies was to obtain in-depth information about the practical support and facilitation of postgraduate nursing and midwifery education within Victorian public health services.

Expressions of interest were sought from health services; from the responses received, the department selected host sites in consultation with the project team. The aim was to select (as far as practicable) health services that represent a broad cross-section of Victorian public health services in terms of geographical location (metropolitan, regional and rural), size and historical uptake of postgraduate nursing and midwifery education. With only four case studies to be conducted, it was not possible to ensure representation from each metropolitan and rural region.

An email was sent to the EDON/DON at each selected site requesting they nominate a staff member who would assist the project team in making the necessary administrative arrangements for the conduct of the case study. An email was also sent to the EDONs/DONs of health services that were not selected, thanking them for their interest and their continued participation in other data collection activities.

1.4.9 Conduct of case studies

Case studies involved two major activities: conduct of a site visit and collection of relevant information and data (where available) in relation to nursing and midwifery postgraduate education.

Site visits were conducted over two days and were arranged and coordinated by a delegated hospital staff member, based on a set of requests provided by the project team. The schedule of the case study site visits is provided in Table 2 below.

Table 2: Schedule of case studies

Case study site	Dates
Mercy Public Hospitals Inc	25–26 March
East Grampians Health Service	28–29 April
Western Health	4 and 6 May
Mildura Base Hospital	13–14 May

The case study at Mercy Public Hospitals Inc was conducted early in the project to fulfil two purposes: to identify whether any amendments were required to focus group and interview schedules ahead of the conduct of the other three case studies; and, to provide some initial input into other data collection activities, primarily the online surveys.

Each site visit consisted of the following data collection activities:

Interviews with senior managers

Interviews were requested with relevant senior managers who have responsibility for, or are impacted by, postgraduate education of nurses and midwives. Interviews were usually 30-45 minutes in duration. The suggested list of managers for interview included:

- CEO
- Manager, Human Resources
- Manager, Quality and Risk
- Chief Nursing Officer/DON

- Manager, Nursing Workforce
- Manager, Nurse Education
- Relevant clinical directors
- Director, Development and Improvement.

Focus groups with nurses and midwives

A mix of nurses and midwives from different specialties within the hospital (e.g. critical care, surgical, mental health, oncology, etc) were requested for each focus group. As far as possible, health services were asked to ensure that focus groups included individuals in the following categories:

- have completed a postgraduate qualification
- are in the process of undertaking postgraduate study
- are considering undertaking postgraduate study
- have considered postgraduate study but decided not to pursue it.

Focus groups were scheduled at times following handover or when in-service meetings were normally conducted, with the aim of enabling as many nurses and midwives to attend as possible. Attendance at focus groups varied quite widely, from one individual up to 30 at the largest focus group. In one case, 25 Emergency Department nurses who had just finished their shift were accompanied by their manager to the focus group. Focus groups were mostly 45–60 minutes in duration.

Focus groups with NUMs, ANUMs, educators and other interested health professionals

These focus groups were targeted to staff in middle management or education-related roles. This included:

- NUMs and ANUMs from various areas within the hospital
- health professionals from other disciplines who are interested in sharing experiences or ideas on postgraduate education for nurses and midwives
- educators that have responsibility for postgraduate nursing and midwifery students.

There was generally good attendance at each of these focus groups, as the relevant staff were usually able to devote the time required (unless, as happened for several staff, emergencies occurred during the focus group). The majority of these sessions used the fully allotted time of one hour, and in some cases, discussion continued with individuals past the conclusion of the session.

Each case study site was requested to provide a range of information, including:

- corporate documentation that refers to postgraduate education for nurses and midwives in a strategic organisational context
- annual reports that summarise postgraduate nursing and midwifery education activities undertaken during the reporting period
- policy and/or procedure documentation that is relevant to postgraduate nursing and midwifery education
- the range of financial and related support (e.g. scholarships, bursaries, study leave etc.) provided by the health service for nurses and midwives undertaking postgraduate education
- data that can be analysed to determine the impact of postgraduate nursing and midwifery education on various outcomes, specifically:
    - nurse/midwife staff data, including for each de-identified staff member:
        - their level of employment (i.e. in FTE)
        - the unit(s) they work in
        - their highest level of registration (RN/RM or EN)
        - whether they have a postgraduate qualification
        - year of birth
        - gender.
    - RiskMan reports relating to nursing and midwifery staff, with an indication of whether the staff member to whom the report relates has a postgraduate qualification

  - patient length-of-stay data for various units of the hospital
  - numbers of nurses that have completed postgraduate education in the last 5 years
  - number of nurses and midwives that commence, but do not complete, postgraduate qualifications (if available).
- other information or data relevant to the project, as identified by the health service.

While collection of health service corporate information for the case study sites was easily obtained, information related more directly to postgraduate nursing and midwifery (e.g. data on the numbers of nurses completing and/or dropping-out of postgraduate study) was not forthcoming. Only two sites were able to provide some limited data in this area.

1.4.10 Focus groups: selection of sites and conduct of focus groups

The same selection criteria used to identify case study sites were also applied to the selection of the seven focus group sites. However, in selecting focus group sites, an effort was made to ensure that rural and metropolitan regions not covered in the case studies would be covered by focus groups. The final list of focus group sites is presented in Table 3 below.

Table 3: Schedule of focus group sessions

Focus group site	Date
Eastern Health	Thu 16 April
Echuca Regional Health	Mon 20 April
Barwon Health	Thu 30 April
Northeast Health Wangaratta	Fri 1 May
Latrobe Regional Hospital	Thu 12 May
Monash Health	Fri 15 May
Peninsula Health	Fri 15 May

The conduct of the stand-alone focus groups differed from the conduct of focus groups in the case studies in the following ways:

- All focus groups were conducted during a one-day visit to the health service by the project team.
- As there were no interviews with individual senior managers, an additional focus group was conducted at each focus group site with senior managers (DONs, HR managers, medical directors, directors of education, etc).
- Staff from other health services were invited to attend – and in a number of cases did attend – relevant focus group sessions being conducted at a nearby focus group site.

1.4.11 Other data sources

The project included the acquisition of data from a number of sources. Requests for de-identified extracts from data sets were made as follows:

- Victorian DHHS, Nursing and Midwifery Workforce – scholarship and Training and Development (T&D) grant data for 2010 – 2014.
- Australian Institute of Health and Welfare (AIHW) – National Health Workforce Data Set – Nurses and Midwives. Dr Hua Zhang of DHHS facilitated a de-identified extract of 36 data fields from the NHWDS. Data was requested for the five years 2010–2014, inclusive.
- Course enrolments and completions. Education providers were asked during interviews to provide de-identified summary data about enrolments and completions in their various postgraduate nursing and midwifery courses. Only Deakin University and the Australian College of Nursing provided any data.

1.4.12 Written submissions

Stakeholders (individuals and organisations) were provided with an opportunity to submit written input in relation to any issue relevant to postgraduate nursing and midwifery education. A link to an online information page was distributed by the project team through an email to the EDON/DON

contacts, with a request for them to forward the link to staff within their organisation. The link was also provided to other individuals who had volunteered to forward information about the review to colleagues in their professional networks.

Written submissions were accepted up to 15 May 2015. A reminder email was sent through EDONs/DONs in the week commencing the 4 May.

A total of three written submissions were received.

2 Literature Review

2.1 Introduction

This section summarises the key findings from a review of the academic literature on postgraduate education of nurses and midwives relevant to the two project questions. Specifically, literature was identified that addressed one or both of the following questions:

- What factors have been shown to affect the uptake of postgraduate education by nurses and midwives?
- What links to improved patient outcomes – and benefits for the health system more generally – have been demonstrated through having a postgraduate-trained nursing and midwifery workforce?

While the results of this literature review will be presented according to these two project questions, it should be noted this does not reflect the manner in which most of the research has been conducted. That is, research that has addressed the enablers and barriers to nurses and midwives undertaking postgraduate education has usually been within the context of determining what benefits have been obtained through having a postgraduate-trained nursing and midwifery workforce.

Two major features of the research are important to note:

- There is a lack of clarity in the nomenclature used in relation to educational qualifications. For example, Masters and Baccalaureate are two qualifications referred to in many studies although the exact level and academic requirements of these qualifications is rarely defined. This has made it problematic when attempting to compare results between studies conducted in different jurisdictions, especially in the previous major reviews of the literature that have been conducted[4].
- The majority of primary data gathering has involved survey-based methodologies. This has entailed surveying nurses, midwives, managers and other stakeholders to ascertain their perceptions around different issues within the postgraduate education domain. There have been few studies that have attempted to address the link between actual clinical outcomes and care provided by postgraduate-trained nurses and midwives, although a number of recent studies have attempted analysis of existing datasets to address these challenging research questions.

Finally, the literature deals almost exclusively with nursing rather than midwifery and therefore in the following discussion, reference to midwives will only be made where they have been included in a specific study.

2.2 Findings from the literature

Project Question 1: Factors underpinning uptake of postgraduate nursing and midwifery education

Postgraduate (also frequently referred to as *post-registration*) education for nurses and midwives in the tertiary education sector has proliferated in many jurisdictions since the early 1990s. A number of researchers and commentators have outlined how the formalisation of university-based postgraduate nurse training, especially in speciality areas of practice, has corresponded with the overall professionalisation of nursing[5 6]. As the opportunities for postgraduate qualifications have grown, so too has the research that has examined the factors that affect the uptake of these educational opportunities. Within the relevant literature, a wide range of factors have been identified and they appear to operate at three main levels within health care systems:

- jurisdictional or health system-wide
- individual health service organisations
- individual circumstances of nurses and midwives.

For the purposes of this literature review, each of these sub-categories will be examined separately. However, it is recognised there is a close inter-connection between the three levels with high-level policy and financial structures affecting the policies and practices at the individual health service

level, which in turn will act to either promote or impede postgraduate education by nurses and midwives.

Health system-wide factors – an international perspective

System-wide factors that affect the uptake of postgraduate nursing and midwifery education involve the extent to which the governmental agencies responsible for health workforce development actively promote and support nursing and midwifery postgraduate education. These agencies have been shown to have two main levers at their disposal:

- the development of policies and strategic frameworks that set the overall direction for postgraduate nursing education
- direct or indirect financial support to enable nurses and midwives to pursue specific postgraduate educational opportunities.

A brief review of international approaches reveals that where both levers have been applied, a significant uptake of postgraduate education has been achieved.

In New Zealand, funding for postgraduate nursing education commenced in 2007 and has been part of a strategic approach of Health Workforce New Zealand (HWNZ) since the organisation was established in 2009. HWNZ has a contractual relationship with each of the district health boards. The boards allocate money for postgraduate education for registered nurses employed by health and disability services, according to each board's specific areas of workforce need[7]. The funding has resulted in the percentage of registered nurses with postgraduate qualifications reaching 20.7 percent as at March 2010 (compared to 2001, where only 12.7 percent had postgraduate qualifications)[8].

Similarly, while not a recent initiative, the Irish Government's implementation in the early 2000s of recommendations from a Commission of Nursing report was the main catalyst underpinning the development of post-registration nursing education in the tertiary sector[9]. The government's practical support included a "free fees" initiative between 2001 and 2007 and the creation of new positions and promotion opportunities that required relevant academic qualifications and nursing experience.

In other jurisdictions, the lack of a coordinated policy and funding approach has made postgraduate education more problematic.

In Scotland, a strategic direction for postgraduate nursing education has only recently been identified in a 2013 report by the Chief Nursing Officer[10]. In highlighting the need to develop a sustainable national approach to post-registration and postgraduate education, it is recognised that a "greater proportion of the nursing and midwifery workforce will require postgraduate education to practice at a higher level". Prior to the publication of this report, Scottish postgraduate nursing education was characterised as being largely *ad hoc* and had actually suffered from cutbacks in funding over recent years[11].

The situation in England approximates the Scottish experience. A recent policy brief prepared for the Government points out that while there has been a long-standing policy commitment of successive governments to staff development, continuing professional development and career progression, this has not translated into implementation[12]. Rather, there is currently a "lack of clarity and evidence of confused, multiple accountabilities surrounding the postgraduate pathway for nursing". Funding for postgraduate nursing has been left to individual National Health Service (NHS) Trusts to determine. This has meant that local level decision-making has predominated, and there has been no overall consideration or planning for future workforce needs.

In Canada, the nature of the education and healthcare system has meant there is no centralised support for postgraduate nursing education. Rather, it is the domain of individual provincial governments which has resulted in a wide variance of approaches. Overall, it is reported that three percent of Canadian nurses have a Masters level qualification[13].

In the United States, the main area that has been identified in the research is in relation to hospitals that have been certified through the *Magnet Recognition Program* operated by the American Nurses Credentialing Center (ANCC)[14]. Magnet hospitals are recognised as delivering quality patient care, nursing excellence and innovations in professional nursing practice. Magnet hospitals make-up approximately seven percent of hospitals in the United States.

Health service level factors

The work environment of individual health services has been demonstrated to have a major impact on both the uptake of postgraduate study and the extent to which nurses and midwives are supported through the completion of their postgraduate study. Unsurprisingly, the published literature has tended to focus on the situations where postgraduate education is not well supported.

The key challenge for health services is being able to release staff from their normal duties to attend educational activities. A number of reports and studies have identified that while health service managers may be committed to developing their nursing staff, the financial and rostering implications required to protect study time are often too difficult to be overcome[10 15 16]. This results in a disjunction between the level of support desired by nurses and the practical support they receive from managers for their postgraduate study[5 16 17].

For some, postgraduate study may simply not be available as an option within their work situation. A survey of nurses and nurse employers in London found that 31 percent of nurses were only sometimes able to attend training courses, while 11 percent indicated they were never able to do so. The most frequently reported barriers to attending training courses were restrictions caused by lack of funding and by staff shortages or workload demands[18].

Some of these health service structural barriers are being overcome through the increasing number of postgraduate courses being provided through online learning and blended learning approaches[19].

One of the other barriers at the health service level is the negative attitude of peers in the workplace towards postgraduate study. A number of studies in the 1990s and early 2000s identified cynicism, disinterest and even distrust of nurses who had obtained postgraduate qualifications[20 21]. In Hardwick and Jordan's research in a UK health service, nurses undertaking postgraduate study reported experiencing resentment from colleagues over being given time for study leave as well as a reluctance to adopt any changes in practice that may have been suggested by postgraduate-trained nurses (as a result of their study)[5]. While these negative attitudes may be less common as postgraduate nursing education has become more widespread, a recent Canadian discussion paper suggested there is still some level of scepticism amongst the profession about the value of undertaking postgraduate education[22].

Individual circumstances of nurses and midwives

The majority of the research that addressed why nurses pursue postgraduate education opportunities was conducted in the late 1990s and early 2000s, as postgraduate education courses were starting to proliferate. The two major factors that have been consistently identified in the literature are a desire to improve professional knowledge and a belief that postgraduate qualifications will assist with career progression.

The desire for knowledge acquisition amongst nurses is so they can stay on top of the latest developments within their profession or area of clinical speciality, and to apply newly acquired knowledge to improve their clinical practice[5 9 23 25]. In the Australian context, Pelletier asserts the driving forces for nurses undertaking further study is the development of specialist practice and in particular a clear delineation between the roles of nurse unit managers and clinical nurse specialists. This has resulted in nurses understanding that specialised knowledge must be obtained to have confidence in performing more senior roles and delivering high quality care[24].

Postgraduate education is also viewed as a means for enabling career progression. Research indicates that nurses are increasingly aware that while it may not be a mandatory requirement, there is an increasing demand for nurses and midwives to have postgraduate qualifications to be considered for senior clinical positions and managerial roles[25 26]. Pelletier's longitudinal study of Australian nurses who had graduated from university postgraduate courses provides an insight into how career progression has become an issue of increased significance. Pelletier surveyed five cohorts of nurses for a period of six years following completion of their studies. The nurses who had graduated earlier ranked *personal situation* as the main factor influencing the attainment of their career goals, whilst the nurses graduating later (in 2002) ranked *postgraduate education* as the main influencing factor[25].

More recent research has included a focus upon the factors surrounding uptake of postgraduate education in non-acute care related disciplines. Hallinan and Hegarty's research amongst primary care nurses (past and present postgraduate students) found the motivations for postgraduate

opportunities were to expand scope of practice, improve clinical practice, increase work satisfaction and increase practice autonomy. Major enablers for postgraduate studies were scholarship access and access to distance education[27]. Similar results have been found for nurses in the specialities of oncology[28] and maternal, child and family health[29].

The study by Scott *et al*. of educational pathways for Australian clinical trial nurses found a lack of postgraduate courses and concluded: "The barriers identified in this study, predominantly the high cost of postgraduate study, insufficient time to study, and the defining problem of an unclear career pathway, should be considered and addressed by employers, nursing organisations, educators, and funding organisations"[30].

Another recent phenomenon to be investigated is the uptake of postgraduate education by recently qualified nurses. A New Zealand study of nurses in a graduate entry-to-practice program found that while participants generally felt well prepared for postgraduate studies at an academic, personal and professional level, there was still 41 percent who believed it should not be incorporated into the first year of practice[31].

Somewhat surprisingly, there has been little research undertaken on one of the potentially most challenging issues for nurses pursuing postgraduate education, namely obtaining adequate financial support. Pelletier reports that a small number of studies in the 1990s addressed the financial issue and concluded that employers should make concerted efforts to recognise and remunerate staff with graduate qualifications[25].

Recently, the evidence base has been widened with research conducted in jurisdictions outside of the UK and Australia. A South African study found that a lack of institutional and social support were the main reasons why nurses undertaking postgraduate study did not complete their study[32]. An Israeli study found that knowledge acquisition and improved clinical skills were some of the main drivers and perceived benefits obtained through participation in post-registration education[33].

Interestingly, there appears to have been little consideration given in the literature to quantifying the non-completion rates for nurses and midwives undertaking postgraduate study. Difficulties in obtaining the required data from education providers, health services and government sources may account for this.

Overall, it has been surmised that post-registration education enables nurses to fulfil motivations for professional development. However the impact of studying on their personal and work lives must be given adequate consideration and recognition by the profession[9].

Project Question 2: The link between patient outcomes and having a nursing and midwifery workforce trained at postgraduate level

While there is a substantial body of literature that has documented a range of perceived benefits from having nurses obtain postgraduate qualifications, both for individual nurses and the health services in which they work, there have only been a relatively small number of studies that have sought to measure or quantify the level of impact on patient outcomes.

To begin, there have been several dedicated reviews of the literature that have sought to determine if any definitive conclusions can be drawn from the breadth of research in this domain.

Cotterill-Walker published a review in 2011 exploring the evidence that postgraduate nursing education at Master's level affects patient care and outcomes[4]. 184 abstracts of published research up until June 2009 were initially considered. After extensive exclusion and inclusion criteria were applied, only fifteen studies remained for in-depth review. The majority of these studies were from Australia and the United Kingdom, with only one each from the United States and New Zealand. Only three of these studies were determined to be focused on actual clinical practice outcomes.

The review analysed these fifteen studies in terms of the major *recurrent themes* of reported positive impacts associated with postgraduate education. These were: increased confidence and self-esteem; enhanced communication; personal and professional growth; knowledge and application of theory to practice; and analytical thinking and decision making. An additional theme identified was *constraints:* this is where nurses had reported being prevented from applying their acquired knowledge and skills in practice.

The review concluded that positive gains were identified that related to professional and personal growth, which may in turn lead to an increased ability to positively influence patient care and thereby improve care delivery and patient outcomes. However, there is a lack of "direct evidence" to support this. Cotterill-Walker suggests there is a need to identify measurable and observable criteria against which the educational outcomes for Master's level performance can be evaluated.

Cotterill-Walker also highlighted a number of methodological concerns with the studies included in the review. These included: surveys tended to have low response rates (reducing confidence that the data collected reflects the sample population); small population samples, purposive or convenience sampling methods limit the generalisations that can be made; question and survey tools were commonly invalidated; and, the majority of studies were carried out by nurse educators which may have entailed a research bias towards favourable outcomes.

At the time of the Cotterill-Walker review, only one study was included that consisted of a quantitative analysis of hospital outcome data. The study by Aiken *et al.* utilising data from Pennsylvania hospitals in the U.S. has been frequently referenced as one of the first studies to address whether the *educational composition* of nurses is related to patient outcomes. The study compared risk adjusted patient mortality rates with the education level attained by nurses across 168 hospitals. It was found that a 10 percent increase in the proportion of nurses holding a bachelor's degree was associated with a five percent decrease in both the likelihood of a patient dying within 30 days of admission and the odds of failure to rescue[34]. This study has also been the subject of criticism over its adjustment in variables between hospitals (e.g. the lack of accounting for differences in the numbers of patients looked after by nurses at different hospitals)[4].

Gijbels *et al.*[35] conducted a review to determine the impact upon practice of all post-registration nursing and midwifery education, excluding continuing professional development (CPD) and in-service training programmes and activities. The review analysed 61 studies (following exclusion of 285 research papers) according to a six-level evaluation framework developed by Barr *et al.*[36], as well as a widely used *five-type* criteria for classifying research evidence. As was found in the Cotterill-Walker review, the majority of relevant research had taken place in Australia and the UK.

The review found the majority of studies (57 percent) could be classified as *Level 3* (*acquisition of skills and knowledge*) in the Barr *et al.* framework and 25 percent were classified as *Level 1* (*learners' reaction to their learning experiences*). The vast majority of the studies (88 percent) consisted of *Type 5* research evidence (opinions of respected authorities, descriptive studies, reports). Further, there were no *Type 1* studies (systemic review of well-designed randomised controlled trials) and no *Type 3* studies (published well-designed trials without randomization).

Gijbels *et al.* concluded that:

> *"Students benefit from post-registration programmes in relation to changes in attitudes, perceptions, and knowledge and skill acquisition, and applying these newly acquired knowledge and skills. However, these benefits relate mainly to the students' personal and professional developments and achievements, rather than to practice developments, organisational changes, and patient outcomes."*

The 2014 review of the literature by Ng *et al.* analysed 59 studies that focused on nurses' attitudes towards postgraduate education in Australia (although studies from outside Australia were included in the review). The review categorised the research according to three themes of a modified Barr *et al.* Evaluative Framework, namely: changes in attitudes; acquisition of knowledge and skills; and, changes in behaviour. The authors concluded there is very little evidence of change of attitude of nurses with regard to the desirability of postgraduate education for speciality practice; there is some evidence of increased knowledge and skills but few studies that quantify this; and, there is little evidence of measured change in practice resulting from postgraduate education[37].

From a policy-making and funding perspective, the ultimate question is whether the substantial investment in postgraduate nursing and midwifery education made over the last two decades has produced quantifiable improvements in patient outcomes. In addition, as jurisdictions look to contain ever-increasing health care expenditure, attention has turned to nursing as a significant component of health care costs, and substantiating the cost-benefit of nursing.

These financial concerns have coincided with an increasing number of studies that have sought to correlate nurse education levels with patient outcomes, as measured by nursing sensitive outcomes (NSOs). NSOs are adverse clinical outcomes that have been identified as responsive to nursing

intervention (i.e. the quality and type of nursing care provided can influence whether or not patients develop these adverse outcomes in their hospitalisation). The NSOs that have featured prominently in this area of research have been: length of stay (LOS); failure to rescue (FTR); surgical mortality; falls; and pressure injuries.

In relation to surgical mortality, a number of studies have demonstrated that hospitals with higher numbers of more qualified nurses (as part of what is termed their *skill mix*) have achieved lower patient mortality outcomes[38] [39] [40]. A review of eight studies that have investigated the association between nurse staffing and clinical outcomes in hospitalised children found that nursing skill mix contributes positively to patient outcomes in terms of a reduced occurrence of adverse events[41].

By contrast, the evidence is less clear in relation to falls and pressure injuries. A study of hospital data from three US states found no correlation between having more high qualified nurses treat patients and the average number of falls experienced[42]. Similarly, Choi and Staggs' study of data from hospitals across the United States found a relatively weak, although positive, association between nursing skill mix and unit-acquired pressure injuries[43].

A recent major European study has examined the cost-benefit issues of nursing across nine countries. Aiken *et al.* assessed whether differences in nurses' educational qualifications were associated with variation in hospital mortality after common surgical procedures, in nine European countries with similar patient discharge data[44]. Discharge data for 422,730 patients aged 50 years or older who underwent common surgeries in 300 hospitals was analysed. Nurse education levels were obtained through surveys of hospital staff in the nine countries. A major finding of the study was that every 10 percent increase in the proportion of nurses with bachelor degrees was associated with a seven percent decrease in the likelihood of an inpatient dying within 30 days of admission. While this study was examining bachelor-level qualified nurses not postgraduate-qualified nurses, a bachelor-level qualification is a post-registration qualification in some of the countries included in the study.

While these studies do provide quantitative assessments of the relationship between patient outcomes and nurse education level, a recent review has suggested that caution needs to be exercised when interpreting the results. Twigg *et al.* have highlighted a major limitation of all the studies is the quality of the underlying effectiveness studies on which estimates of the relationship between adverse outcomes and staffing/skill mix levels are based[45]. From the authors own review of nine cost-benefit and cost-effectiveness studies, they were unable to determine conclusively whether or not changes in nurse staffing levels (including having more highly qualified nurses in the staff mix) is a cost-effective intervention for improving patient outcomes.

Finally, one of the less frequently researched aspects of postgraduate training is in relation to patients' views on postgraduate nursing education and its impact on the care they receive. Gill *et al.* conducted focus groups across four Australian states with consumers that had been patients in critical care units. One of their main findings was that critical care nurse postgraduate education programs need to emphasize the development of skills and behaviour to provide effective patient and family support[46].

Conclusion

In relation to project question 1, the following can be concluded from the research literature:

- Postgraduate nursing education is facilitated through policy and financial support at the jurisdiction-wide level and practical and peer support at the individual health service level.
- Postgraduate education is pursued by nurses for knowledge and skill acquisition and to advance career progression. Nurses encounter a range of barriers but there is no evidence these are insurmountable or prevent large numbers of nurses from obtaining postgraduate qualifications.

In relation to project question 2, the following can be concluded from the research literature:

- A range of personal and organisational benefits from having postgraduate-trained nurses have been documented. However, no literature demonstrating a direct causal link between postgraduate nursing education levels and improved patient outcomes was identified.
- It is clear the research in this domain suffers from a range of methodological limitations. A number of researchers have commented on the problems with the methods adopted in many of the studies, including those that have attempted quantitative analysis of NSOs. This means that a level of caution must be exercised in interpreting much of the research evidence.

3 Project Findings

This section details the results of the various project activities involving data collection from stakeholders and key informants.

3.1 Development of the logic model

The logic modelling workshop was conducted on 10 March 2015 and involved 18 participants from a range of metropolitan and regional health services (public and private), education providers and departmental representatives. Over the course of the workshop, the group identified the major objectives of having a postgraduate-trained nursing and midwifery workforce, as well as key inputs and activities for realising those objectives. During the discussion, inputs and activities were arranged graphically into pathways leading to the agreed objectives, resulting in a draft roadmap – or logic model – for realising the value of a postgraduate-trained workforce. Workshop participants also provided insights on the ongoing support and consolidation that is needed for staff once they have obtained postgraduate qualifications.

Following the workshop, the consultants completed the logic model, which was then circulated to the workshop participants for feedback and comment.

The finalised logic model is presented in Appendix 4. The model reveals the pathways through which health services obtain postgraduate-trained staff (namely, *recruitment* and *training*), as well as the various interrelated pathways through which a health service might realise the value of having postgraduate-trained staff. The immediate outcomes, medium-term outcomes and objectives of these pathways are summarised in Table 4.

Table 4: Outcomes and objectives identified in the logic model

Immediate and short-term outcomes	Medium-term outcomes	Objectives
▪ Pay scale reflects postgraduate qualifications ▪ Managers are aware of the knowledge and skills of staff in their unit ▪ Postgraduate-trained staff are recognised and valued by managers ▪ Other staff value postgraduate-trained staff ▪ Postgraduate-trained staff are promoted to leadership and/or management roles	▪ Best practice in patient care ▪ Innovation in patient care ▪ An organisational culture that values research ▪ Staff retention ▪ A learning organisation	▪ High quality patient care ▪ An employer of choice ▪ A sustainable health service

The logic model content was used to inform the development of the schedules of questions for interviews and focus groups, as well as the online surveys.

3.2 Datasets

Data from three datasets was analysed for this project, namely

- DHHS Training & Development (T&D) grant
- DHHS Scholarships
- National Health Workforce Data Set.

3.2.1 DHHS T&D grant data

These data provide an indicator of postgraduate education activity in public health services across the state. Health services apply for funding from the department to support the clinical training component of eligible postgraduate education programs, where a supervised training component is required for program completion. Eligible programs include postgraduate certificates, diplomas and master level nursing and midwifery courses in specialty subject areas.

However, the data only provide a partial measure of actual postgraduate activity because:

- Students enrolled in courses that do not include a clinical component are not included.

- Funding is only provided for the first 12 months of an eligible course; if a student takes more than one year to complete their course, the subsequent years of study are not included in the activity reconciliation.
- Courses in palliative care and mental health are not included in these numbers.

Data was provided by the department for the period 2010 – 2014, showing the actual headcount of eligible postgraduate students in each year for each Victorian public health service.

The data was analysed for trends in postgraduate activity over time. To allow direct comparisons between health services (or regions) whose activity levels may differ by one or two orders of magnitude, the 2010 activity levels were considered to be "100 percent activity" for that health service (or region). Changes to the activity level in subsequent years were then calculated as a percentage of the 2010 activity level.

Figure 2 shows the overall trend in postgraduate activity across Victoria over the period 2010 – 2014 and reveals a decline in activity of about 13 percent on 2010 levels (red line). The decline is primarily in metropolitan health services, which saw a decline of 19 percent from 2010 to 2014 (blue line), whereas there was a net increase of five percent in regional hospitals over the same period (green line).

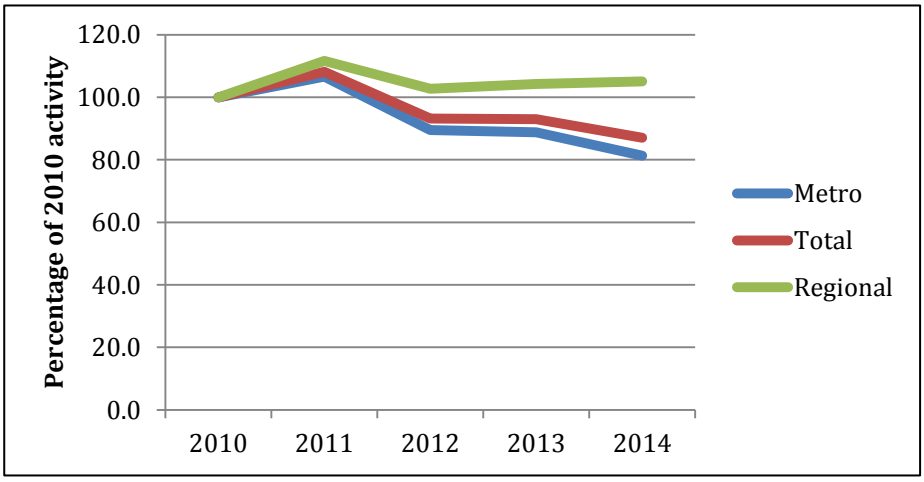

Figure 2: Trends in postgraduate activity in Victoria, 2010 – 2014

Examining the regional areas in greater detail, differences can be seen in the activity levels in the five regions. Figure 3 reveals that, comparing 2014 to 2010, Grampians, Hume and Loddon Mallee regions had a net increase in postgraduate activity of between seven and 32 percent, while Barwon South Western and Gippsland had a net decrease in postgraduate activity of six percent and 12.5 percent, respectively.

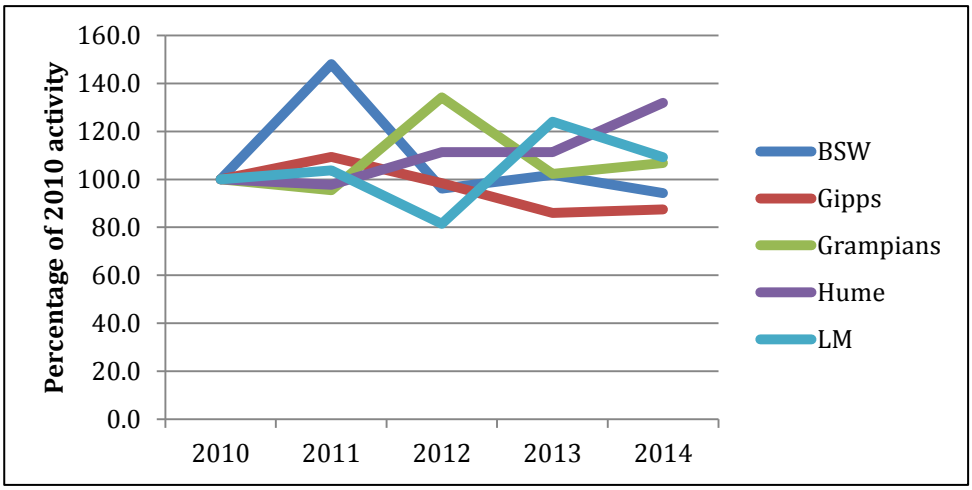

Figure 3: Regional trends in postgraduate activity, 2010 – 2014

It is also apparent from Figure 3 these changes were not steady across the period. For example, after a very significant increase of 48 percent in 2011, Barwon South Western then experienced a sharp decline in activity in 2012, back to just below the 2010 levels. Similarly, Grampians region had a sharp increase in activity in 2012 and corresponding decrease in 2013, before settling back to a slower growth trend. Loddon Mallee region experienced a sharp decrease and then increase in 2012-13, effectively a mirror-image of the trend in Grampians region.

A review of the trends in metropolitan health services reveals three different outcomes over the five-year period.

The first outcome (see Figure 4) is an overall increase (or steady state) in postgraduate activity, comparing 2014 levels to 2010 levels. This outcome was observed for six hospitals/health services. While there is an overall net increase in activity, it is apparent that some hospitals/health services in the group experienced significant fluctuations in activity over the five-year period. However, it should also be noted that both Calvary Health Care Bethlehem and Royal Victorian Eye and Ear Hospital, which demonstrated the most dramatic fluctuations, have very low levels of postgraduate activity, so small changes in absolute numbers represent much larger fluctuations in percentage terms than for other health services in the group.

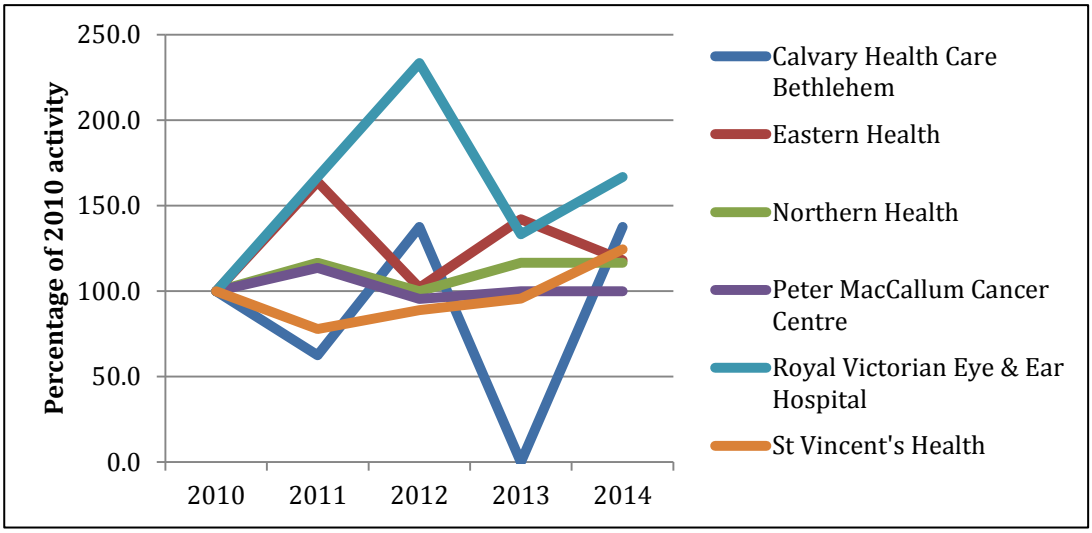

Figure 4: Metropolitan trends in postgraduate activity, 2010 – 2014: outcome I

The second outcome (see Figure 5) is of an overall decrease in postgraduate activity of between six and 18 percent, comparing 2014 levels to 2010 levels. This outcome was observed for four hospitals/health services. Within this group, two of the hospitals/health services experienced quite significant increases in activity in the period 2011-2013, before experiencing a significant decline in 2014. The other two health services have experienced a decline in activity since 2010.

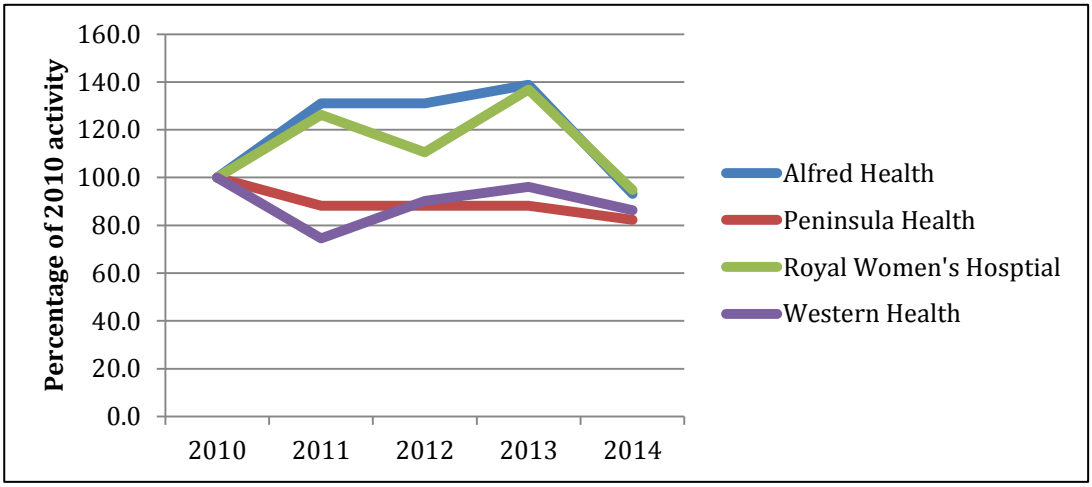

Figure 5: Metropolitan trends in postgraduate activity, 2010 – 2014: outcome II

The third outcome (see Figure 6) is of an overall decrease in postgraduate activity of between 27 and 49 percent, comparing 2014 levels to 2010 levels. This outcome was observed for five hospitals/health services. Although all five organisations have experienced a significant net decline in postgraduate activity, Monash Health experienced a sharp increase of 28 percent in 2011, prior to its significant decline in activity, while Melbourne Health experienced an 18 percent decline in activity in 2011, followed by a recovery to 2010 levels for a couple of years, followed by another very significant decrease of 30 percent. The other health services in this group experienced significant declines over the period 2011-12, followed by some recovery in activity levels.

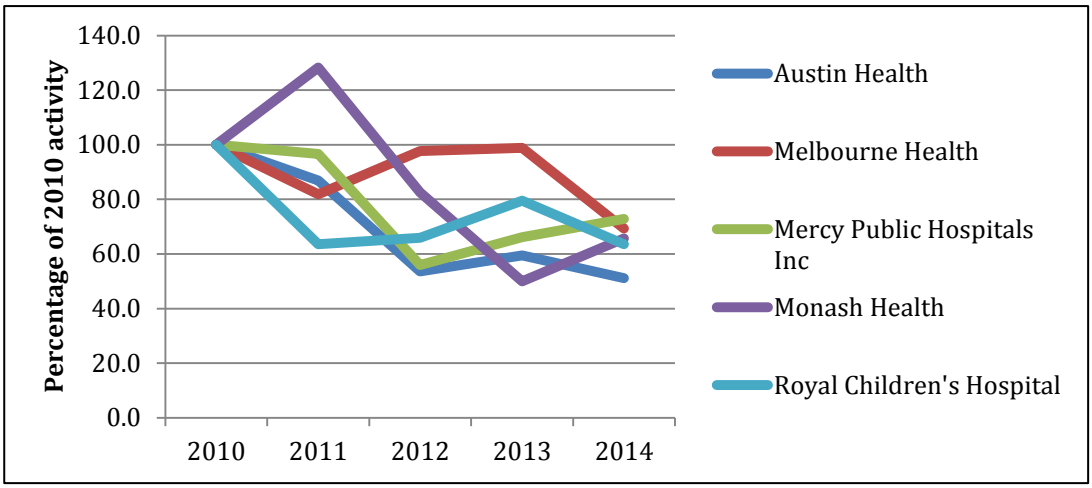

Figure 6: Metropolitan trends in postgraduate activity, 2010 – 2014: outcome III

Taken together, these data reveal that postgraduate activity levels have been fluctuating significantly in Victoria over the past five years, although the outcomes vary considerably between health services and between regional and metropolitan areas. Indeed, most of the decline observed in overall postgraduate T&D funding since the peak recorded in 2011 was due to declines recorded in metropolitan health services. Interestingly, many of the health services recording a decrease in postgraduate activity as measured by the size of their postgraduate T&D grant were at the same time increasing in their allocation of DHHS postgraduate scholarships (see Section 3.2.2). This would suggest the decreases in postgraduate activity reflect fewer individuals self-funding their postgraduate study.

Importantly, even where similar postgraduate activity outcomes were observed (i.e. comparing 2014 activity levels to 2010 activity levels), the pathway to achieving the outcome varied considerably between health services and regions, suggesting different local factors at play.

3.2.2 DHHS Scholarships

The department offers scholarships for registered nurses and midwives working in the public health sector to assist with the costs associated with postgraduate studies in clinical practice specialty areas. Scholarship quotas are allocated to individual metropolitan public health services and to the five DHHS rural regions according to the full-time equivalent workforce. In addition to general scholarships, the department also offers scholarships in targeted specialty areas; for example, in 2014-15, targeted scholarships in oncology nursing, as well as targeted rural midwifery scholarships and targeted regional special care nursing/ neonatal nursing scholarships were offered.

Data was provided by the department for the years 2010-11, 2011-12, 2012-13 and 2013-14. In the analysis presented below, the data for general midwifery scholarships and the targeted rural midwifery scholarships was not included, as the Graduate Diploma in Midwifery course was specifically excluded from the scope of this review.

Figure 7 (overleaf) shows the total numbers of scholarships allocated by the department across the four years for which data was provided, as well as a breakdown by metropolitan versus regional allocations. There was a significant increase in the number of scholarships allocated by the department in 2011-12 (86 percent increase overall, with the number of regional scholarships more than doubling), tapering off over the subsequent two years. By 2013-14, the number of regional

scholarships had increased 2.5 times compared to 2010-11, while the number of scholarships allocated to metropolitan health services had increased by 78 percent.

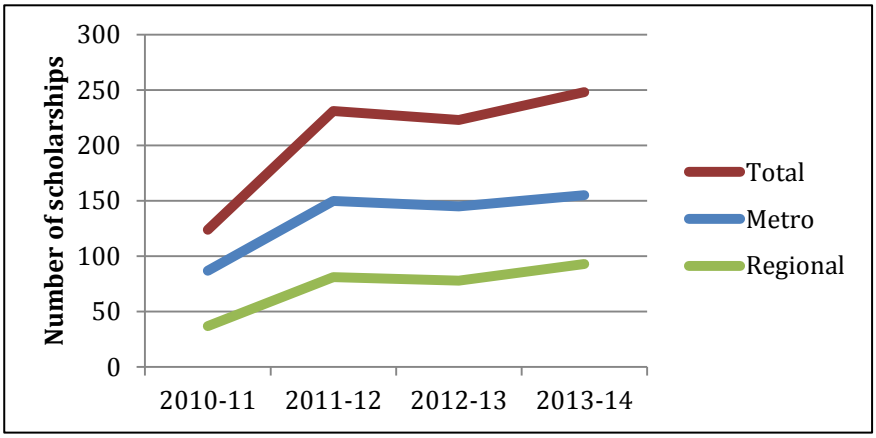

Figure 7: Scholarships allocated in Victoria, 2010-11 to 2013-14

Since the available funding pool caps the overall number of scholarships, this result is not particularly informative about demand for postgraduate study. Indeed, metropolitan and regional informants noted that metropolitan health services and rural regions (respectively) endeavour to utilise all scholarships allocated to them. In the rural regions, this is achieved by the smaller hospitals indicating the number of scholarships they require and the larger regional health services taking up whatever scholarships are leftover.

On the other hand, an inability to allocate all the scholarships to students that were initially allocated to a health service or region could provide some indication of whether the demand for postgraduate study is declining. The department was asked to provide data about the number of postgraduate scholarships that could not be allocated in each of the four years included in the analysis.

As it transpired, the data provided by the department did not present a simple picture. There were instances where scholarships were allocated and then subsequently returned to the pool because the student withdrew from the course, or instances where scholarships could not be allocated in Semester 1 and were rolled over to Semester 2 when they were allocated. Moreover, as noted earlier, the rural regions of the state re-allocated scholarships amongst the health services within the region as part of their standard operating procedures for managing the region's postgraduate scholarship allocation. Since the purpose of this analysis was to determine the proportion of DHHS scholarships for which there was no Semester 1 demand, it was decided to treat these various cases as follows:

- Scholarships that were allocated but subsequently returned to the pool because the student withdrew from the course were counted as having been allocated.
- Scholarships re-allocated amongst health services within the same rural region were counted as having been allocated.
- Scholarships that could not be allocated to any student in Semester 1 but were then allocated in Semester 2 were counted as not allocated.

Table 5 (overleaf) shows the results of the analysis and reveals a small proportion of scholarships are not allocated in Semester 1 each year.

Taken at face value, the data do not show any particular trend in demand for scholarships. Even if a trend were observed, caution would need to be applied in interpreting the result as an indicator of demand, since the system of allocating scholarships does not reflect a perfect market. For example, many health services limit the dissemination of information about scholarships and postgraduate study, so the lack of apparent demand may actually reflect a lack of awareness by individuals who might otherwise apply for a scholarship.

Table 5: Unallocated scholarships

	2010-11		2011-12		2012-13		2013-14	
	Metro	Rural	Metro	Rural	Metro	Rural	Metro	Rural
Total initially allocated	87	37	150	87	145	84	155	96
Total not allocated to a student in Sem 1	4	0	3	3	2	5	1	4
% not allocated	4.6%	0%	2%	3.4%	1.4%	6%	0.6%	4.2%

One aspect of the analysis of DHHS scholarships that is noteworthy is the changing emphasis in terms of specialty areas for which the scholarships have been used. Two distinct trends were observed.

In the first trend, the number of scholarships allocated for the specialty area increased initially in 2011-12, then continued to increase to the highest recorded level in 2013-14, usually after a significant decrease in 2012-13. Figure 8 and Figure 9 (overleaf) show the specialties for which this trend was observed in metropolitan and regional health services, respectively. This trend was observed in **both** metropolitan and rural regions for aged care, clinical teaching, diabetes education, oncology and renal postgraduate courses.

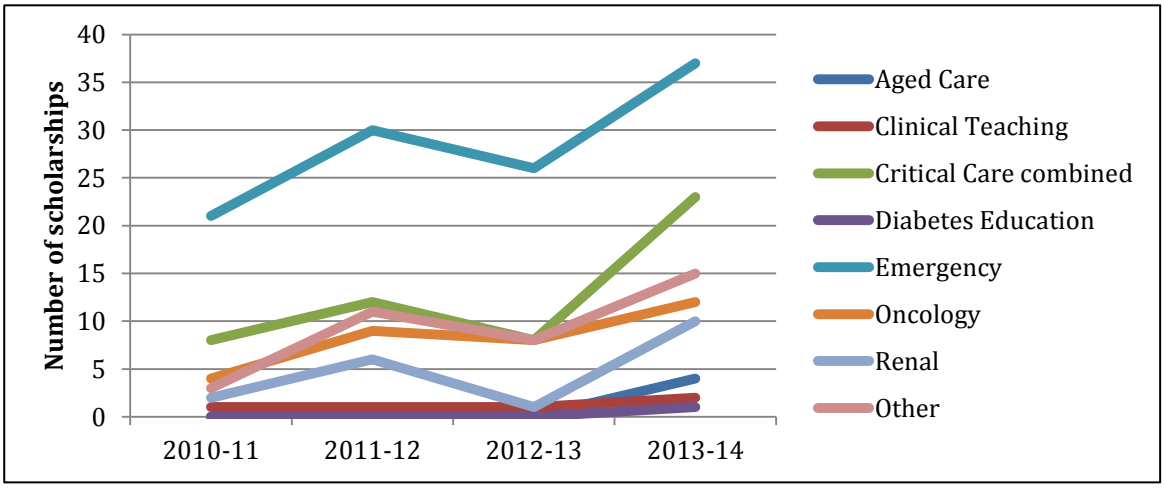

Figure 8: Postgraduate study in metropolitan health services, 2010-11 to 2013-14: Trend I

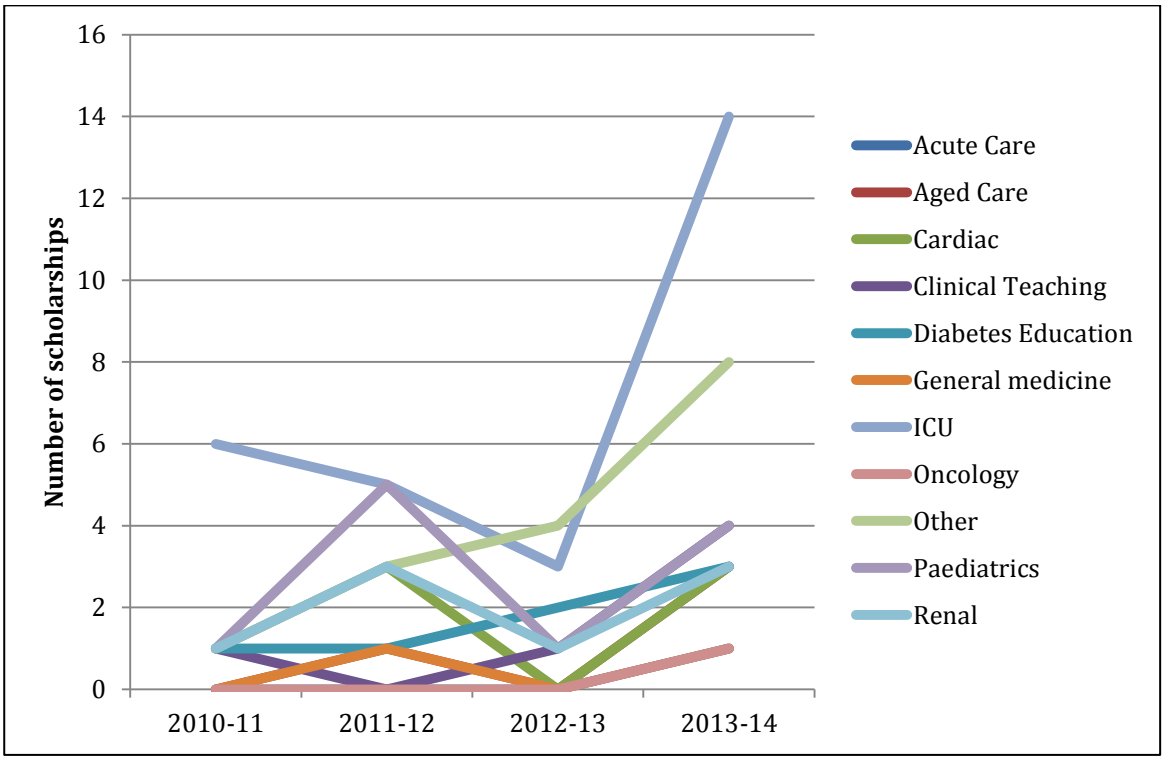

Figure 9: Postgraduate study in rural regions, 2010-11 to 2013-14: Trend I

In the second trend, the number of scholarships allocated for the specialty area increased to a peak in 2012-13, then decreased to a level below the peak in 2013-14. Figure 10 and Figure 11 (overleaf) show the specialties for which this trend was observed in metropolitan and regional health services, respectively. This trend was observed in **both** metropolitan and rural regions for NICU/PICU, palliative care, perioperative and wound management postgraduate courses.

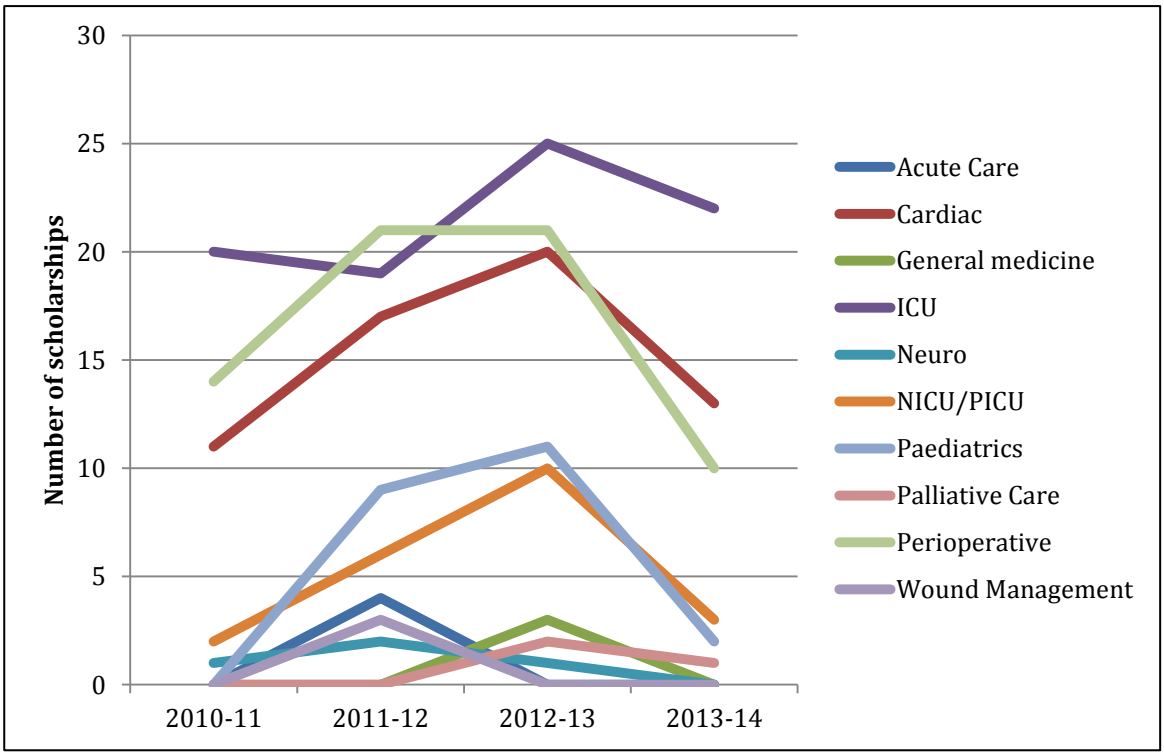

Figure 10: Postgraduate study in metropolitan health services, 2010-11 to 2013-14: Trend II

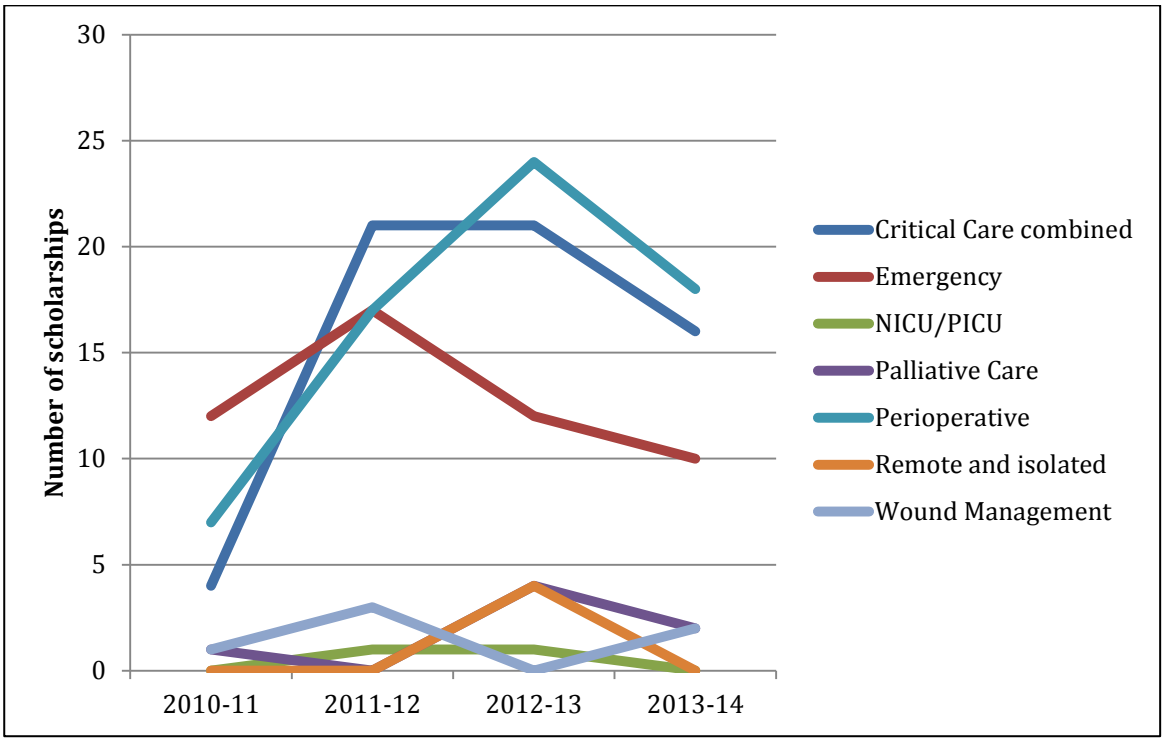

Figure 11: Postgraduate study in rural regions, 2010-11 to 2013-14: Trend II

Thus, the specialty areas where different trends were observed between metropolitan and rural regions were acute care, cardiac care, critical care, emergency, general medicine, ICU and paediatrics.

3.2.3 National Health Workforce Data Set

The data for nurses and midwives extracted from the National Health Workforce Data Set (NHWDS) combines data collected through the annual registration renewal process of the Australian Health Practitioner Regulation Agency (AHPRA) and data collected through the Nursing and Midwifery Workforce Survey. The survey is conducted in association with the registration renewal process, but is not mandatory.

Initially, data was requested for each year in the period 2010 – 2014, inclusive; however, data was only provided for 2013. For the years prior to 2013, the data was not considered to be fit for the required analysis, owing to a different survey methodology, while at the time of the data request, data was not yet available for 2014.

As it transpired, the data for 2013 were not particularly informative, mainly because the data included a large number of errors and inconsistencies that suggested individual records were not always complete. In part, this may reflect the fact that the Nursing and Midwifery Workforce Survey is not mandatory, but also reflects non-mandatory data fields and poor data quality in the *qualifications* (and other) sections of the registration form.

Since the analysis of the NHWDS data does not add any findings of significance – or value – to this review, the reporting of the analysis and results is presented in Appendix 5.

3.3 Stakeholder input

3.3.1 Interviews

Interviews were conducted with a range of informants, to provide background and context for other data collection activities, but also to provide key perspectives relevant to the review. This section presents a summary of input collected from three categories of informants, specifically:

- other jurisdictions
- education providers
- other key informants, including:
    - senior managers in the department
    - professional bodies
    - a private healthcare provider
    - selected individuals.

3.3.1.1 Other jurisdictions

Interviews were conducted with staff members from the health departments in NSW, Tasmania, ACT and New Zealand. A summary of those discussions is presented in Table 6 (overleaf).

In addition, information from the other Australian states and territories were obtained from relevant websites. The main findings are presented below.

Western Australia

The Western Australian Health Department publishes information on its website about its support for postgraduate study by nurses and details of its scholarship program: http://www.health.wa.gov.au/Careers/Occupations/Nursing-and-midwifery/Scholarships-and-financial-assistance/Scholarships/Postgraduate-scholarships.

Funding for postgraduate studies covers up to 50 percent of unit costs, to a maximum value of $7,000. Private sector applicants in receipt of a scholarship will be funded up to 40 percent of unit cost, to a maximum value of $5,000. The travel bursary scheme for nurses working in rural health services who are undertaking postgraduate study is currently "under review".

South Australia

The South Australian Department of Health, Nursing and Midwifery Office operates the *SA Health Postgraduate Study Assistance Program for Public Sector Nurses and Midwives.* Information on the SA scheme is available through the following link: http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/about+us/department+of+health/system+performance+division/nursing+and+midwifery++office

Scholarships are awarded as a contribution towards the cost of undertaking study, e.g. course fees, textbooks, etc. Applicants receiving funding support through any other state or federal scholarship funding support program are not eligible to apply. A one-off payment (before tax) is made at the following levels:

- up to $2,000 for a graduate certificate
- up to $4,000 for a graduate diploma
- up to $6,000 for a Masters.

The SA program is paid upon completion of studies and requires a transcript of the academic record for payment to be made. Successful scholarship applicants in 2015 will be paid between March and June 2016. The program information for 2015 also indicated that tax on scholarships is paid according to the practitioner's marginal tax rate. The tax is paid via the PAYG system and therefore is not subject to Fringe Benefits Tax.

Table 6: Summary of responses from interviews with inter-state and overseas health departments

Issue	NSW	Tasmania	ACT	New Zealand
Policy position on having a postgraduate-trained N&M workforce	No formal policy.	No formal policy, but provisions in N&M EBA specify levels of remuneration for different PG qualifications that commence once the practitioner qualifies, namely: 4% for Adv Dip; 4% for Grad Cert; 6% for Grad Dip; 7.5% for Masters or PhD.	No formal policy, but it is covered in a specific section of the EBA. Mental health, NICU and critical care are the main priority areas for having PG qualified workforce.	No policy for nursing or midwifery (which is considered a separate profession). Nurse Practitioners are required to have a Master's degree.
Funded programs to support N&M postgraduate study	There are three models of funding: ▪ the ACN is funded to deliver specific courses ▪ Local Health Districts (LHD) are funded to cover study leave by N&Ms ▪ scholarship program.	DHHS Tasmania offers a scholarship scheme, whereby two units (a year) are HECS-free, which applies to any profession. Nurses also get assisted study leave (5–10 days per year).	All applicants receive a scholarship. They must have worked for ACT Health for at least one year. Area of study must be relevant to practice (includes Masters and PhD, also non-clinical). Also have a mental health PG scholarship (Grad Cert or Grad Dip) – these are fully funded.	Health Workforce New Zealand (HWNZ) has a budget of $11.1 million. The funding includes payment of full course fees, payment of backfill costs and some travel and accommodation as required to attend course delivery in other locations.
Administration of scholarships	Scholarships are administered by the Health Education and Training Institute (HETI) and has three levels: ▪ Grad Cert = $3,000 ▪ Grad Dip = $6,000 ▪ Masters = $8,000 Total number of scholarships is in the 100's. There has been a slight decline recently. Application requires nurses to write about how they plan to make of their skills and knowledge (e.g. a plan for clinical guidelines, contribution to policy, etc).	Scholarship scheme is administered by DHHS (staff are employees of the dept). All N&M staff can apply to do their PG study completely free, although waiving the HECS fees (after the first two units covered by the DHHS funding) is done by the university.	Scholarships formula for funding: ▪ fully reimbursed for courses <$1,000 ▪ 75% reimbursed for courses $1,000-5,000 ▪ 50% reimbursed for courses >$5,000. Funding is retrospective, since they found lower completion rates when scholarship was paid up-front (they are more committed to the study when they have to pay up-front for the course themselves).	The $11.1 million budget is divided between the District Health Boards (DHBs), mainly on historical program usage basis (i.e. if they used the program in the past they continue to get funded), but also on demographic needs basis.

Issue	NSW	Tasmania	ACT	New Zealand
Enablers or 'best practice approaches' being implemented by health services in the jurisdiction	Transition to practice programs that assist nurses to move into new specialty areas, including local mentoring, support and education programs for the new clinical area (e.g. ED, mental health, ICU and perioperative). Includes a content knowledge handbook and workbook.	As postgraduate study is very much part of the workplace, this is embraced in the culture e.g. through rostering practices. Statement of duties for N&M positions includes working towards PG qualifications and this is needed for advancement. In recruitment, PG qualifications are a "desired" selection criterion.	ACT Health is working on this currently. They are including new models of care in their development, with a focus on skills and competencies of the nursing workforce to address population health needs.	Before funding PG study, the health service must have a career development plan for the nurse that aligns with an overall workforce plan. The career planning approach to nominating staff is a good approach.
Barriers or 'less ideal practices' of health services that are inhibiting the uptake of postgraduate training	The younger generation are less likely to put career considerations above everything else.	Some of the younger nurses are obtaining career progression without the PG qualifications.	There are still N&M who don't know about the scholarships. This is something that NUMs could take more responsibility for, ensuring relevant information is made available to their staff.	A general shortage of staff places restrictions on undertaking PG study; when experienced staff go on study leave to attend block courses, it can be difficult to find backfill. The more experienced the nurse, the more difficult to find an equivalent replacement.
Relationships with education providers	At the department level, they only have a relationship with the ACN. Individual LHDs may have partnerships with universities around the design or delivery of education programs.	There is a strong relationship with the University of Tasmania. UTas is happy with enrolment in their most popular specialty program e.g. critical care, but they do struggle with the smaller programs.	ACT Health works with ACU, Charles Sturt University and University of Canberra.	The marketplace is fairly limited (because of the small workforce) and PG courses are offered by the universities and polytechnic in a competitive environment. Nurses want more specialised courses, but small number for highly specialised courses can limit the viability of the courses for EPs. More Generalists courses that can apply to a larger number of students are more viable for the EPs.
Models or approaches to N&M postgraduate education that are working well	A centralised model so all LHDs access the same resources. LHDs can have their own MOUs with EPs, but not too many of these, since LHDs are not fund-holders.	None identified.	ACT Health model works well but could be improved by more emphasis on education that doesn't require formal tertiary study.	None identified.

Issue	NSW	Tasmania	ACT	New Zealand
Is there a need for a guide or framework for health services on utilising PG trained N&M?	Local managers are likely to have particular strategies to utilise skills and knowledge. In performance management, this provides an opportunity to discuss the utilisation of knowledge and skills, but there is no formal framework. A framework is not likely to be formally developed in NSW.	This is very much to do with the workplace culture. If PG study is expected in the organisation, then a meaningful program of ongoing support is likely to exist. Performance appraisals should also take account of additional skills and knowledge. DHHS Tasmania doesn't hold any data as to whether this EBA has made a difference to uptake of PG training.	There would be merit in such a program (doesn't exist in the ACT at the moment).	No comment provided.

Northern Territory

The Northern Territory Government offers a number of scholarships for undergraduate and postgraduate nurses and midwives through the *NT Government Studies Assistance Grant Scheme*. Information on the NT program is available at: http://www.health.nt.gov.au/Nursing_and_Midwifery/Studies_Assistance_and_Scholarships/index.aspx

Applicants studying postgraduate courses must have resided in the NT for at least one year, be employed in an NT health service and be registered with the Nurses and Midwifery Board of Australia (NMBA). Priority is given to applicants undertaking studies that will contribute to addressing strategic workforce goals for improving health service delivery and health outcomes for Northern Territorians.

The website does not specify the actual amounts that are paid. It appears applicants can seek up to 100% of postgraduate course costs, and the Assessment Panel will determine the amount that is awarded to individual applicants. However, it is an expectation that nurses and midwives will also contribute to the costs of their own professional development.

Queensland

Review of the relevant websites did not identify any scholarships offered through the state government. Scholarships are offered by the Queensland Nurses Union, to support a wide range of professional development opportunities, including seminars, short courses and postgraduate study.

3.3.1.2 Education providers

A total of five interviews were conducted with staff from education providers: four with staff from three Victorian universities and one with the CEO of the Australian College of Nursing (ACN).

One of the most interesting findings was that staff at the "coalface" within universities feel very constrained by the financial aspect of course delivery. They know course fees represent a large impost on individual nurses and midwives; however, they feel powerless to change this situation. Ultimately, they are only able to offer courses that can be demonstrated to be profitable. Some innovations have been implemented in terms of sharing the responsibility for teaching with health service-based staff, although this has raised concerns about the maintenance of standards and academic rigour.

Another finding of interest was that ACN courses do not have a large number of enrolments from Victorian health services. ACN takes most of its students from NSW (where they have a contract with the NSW Government) as well as Queensland and Western Australia.

Table 7 below presents an overview of the major inputs received from the interviews with staff from education providers.

Table 7: Summary of responses from interviews with education providers (EPs)

Issue	Summary of input provided by Education Providers
Relationships with health services	▪ A range of relationships exist with health services. These are an important feature of the environment. ▪ Some EPs work quite closely with health services in terms of identifying the individuals who are suitable for PG study and then also in supporting students who are undertaking PG study. ▪ It is vital to have partnerships with health services to deliver courses that will meet the needs of health services. However, quality is an important factor and some of the lesser quality courses compromise on the teaching of theory and expect the health service clinical educators to fill in the gaps with teaching the theory. ▪ Nursing and midwifery PG education is a very competitive marketplace now; industry partners are essential to success.
Key issues for determining which PG nursing or midwifery courses are offered	▪ Having a demand for courses – and being able to demonstrate that demand – is vital. ▪ Financial viability is the ultimate determinant; if courses are not profitable, then it is becoming very difficult to justify their continuation. ▪ The allocation of Commonwealth Supported Places (CSPs) is a big issue. Some universities are still able to offer CSPs for PG courses, whilst others have adopted policy that prevents CSPs being offered in this area.
How demand for particular courses is determined	▪ Staff within EPs are aware of workforce development issues. ▪ EPs gather intelligence either directly or from third-party sources about industry requirements. One university has an industry advisory group that advises on courses and course content (meets at the end of each year). ▪ Ultimately, it is about enrolments, and if particular courses do not achieve the numbers, they cannot continue to be offered.
Which courses have the greatest and least demand	▪ The traditional courses (critical care, ED, perioperative etc.) still tend to be in the greatest demand. ▪ One interviewee is considering creating a more generic Grad Cert course for "generalist acute care". ▪ Other interviewees said they would like to offer courses targeted at "general" nursing (and one provider has offered this in the past), but historically the numbers of students have not been achieved. This doesn't tend to be one of the priority areas for most health services.
Key issues for nurses and midwives that impact on their uptake	▪ EPs are aware the financial cost of postgraduate courses is a major concern. University staff feel hamstrung by this issue as well. ▪ There is a culture in nursing of not valuing experience and expertise. This

Issue	Summary of input provided by Education Providers
of postgraduate education opportunities	has an impact on staffing specialist areas, with more junior nurses being appointed, rather than Clinical Nurse Specialist (CNS) positions, which are more expensive. ▪ As one interviewee surmised, nurses undertake PG study for one of three reasons: o They see themselves as professionals o They do it for extra pay o They see better career options
Practices within health services that may assist staff to undertake postgraduate training, or enable the health service to realise the benefits from that training	▪ Some EPs encourage and teach their students methods for reviewing a hospital protocol against available evidence; this is a very tangible means of utilising the benefits of their PG trained staff. Another assessment task is to develop a conference presentation concerning a good idea they have come up with, and share this with staff in their health service. ▪ While health service "discovery programs" are seen by some as helping to prepare nurses for PG study, one interviewee emphasised these programs are "training" not "education". ▪ There should be an expectation that PG study is a shared responsibility between the nurse and the health service.
Practices within health services that may inhibit the uptake of postgraduate training, or the utilisation of nurses with postgraduate qualifications	▪ Where health services have in-house up-skilling programs, these tend to impact negatively on uptake of PG courses offered by universities. ▪ Lack of support from management for students to access study leave. ▪ Students are not generally well-prepared for PG study. ▪ There is still a cultural issue in some settings of not valuing PG study; it has always been the case that nurses without PG qualifications can achieve advancement.
Strategies that could be driven by DHHS	▪ Development of a framework would be a good idea; students should be held accountable for the outcomes of their study. ▪ Mentorship programs need funding. A long-term strategy in this area is required. ▪ Professional bodies need to provide more drive for PG qualifications to be a requirement in some speciality areas; perhaps DHHS could assist with this conversation.

Education providers were asked to provide de-identified data about course applications, course enrolments and course completions to assist the project team to develop a complete picture of the level of postgraduate activity in Victoria. Two organisations did provide data, although they were not able to provide comparable information. As the data from education providers was incomplete and not comparable across institutions, it was decided not to include any data from education providers in this report.

Education providers were not asked to provide information about the cost of their courses. However, as the cost of postgraduate courses was identified as a key issue for nurses and midwives in their decision to undertake postgraduate study, it was decided to conduct desktop research to tabulate the current fees for courses offered by Victorian education providers and the Australian College of Nursing. The information collected through this research is presented in Appendix 6.

From the information that could be obtained from education provider websites (noting there were significant gaps in the available information for some courses), there is a range of course fees for each postgraduate course level. For Graduate Certificate courses, fees ranged between $8,200 and $11,200; for Graduate Diploma courses, fees ranged between $16,400 and $22,400; for Masters courses, fees ranged between $24,600 and $44,800.

3.3.1.3 Other key informants

Australian Nursing and Midwifery Federation (ANMF) Victorian Branch

Two representatives from the Australian Nursing and Midwifery Federation Victorian Branch were interviewed for this project.

The ANMF Victorian Branch is very supportive of nurses and midwives obtaining postgraduate qualifications. The ANMF were able to provide a range of suggestions for improvement to the DHHS scholarships program. An overview of the discussion with the ANMF representatives is presented in Table 8.

Table 8: Overview of discussion with ANMF

Issue	Input provided by ANMF interviewees
Does ANMF have a formal policy position on having a postgraduate-trained nursing & midwifery workforce?	There is no policy specifically for PG qualifications, but other policies do apply. The ANMF recognises a PG-trained workforce is critical to sustainability of the overall health workforce and is essential for career development and specialisation of the workforce. In the case of mental health, the EBA/industry requirements reflect the professional workplace needs. The ANMF recognise that experience is important, but formal qualifications are essential. Given this, it is essential that obtaining PG qualifications is supported.
What are the key factors that influence the uptake of postgraduate education by nurses & midwives?	Cost is a significant factor with courses costing anything in the order of $17,000 up to $25,000. It is not just the cost of the course, but also reduced salary and pro-rated benefits through reduced work hours. It used to be that PG students were paid full-time (but only actually worked 0.8), so they were paid for their study days. ANMF would like to see the scholarships cover full fees, without reducing the number of scholarships. The employment model is skewed towards younger nurses who are less likely to be seeking continuity of employment. This model disadvantages nurses with a mortgage who need ongoing employment and is not necessarily family-friendly, e.g. in the rostering of shifts. Balancing study load and other commitments is difficult for nurses and midwives. Therefore, postgraduate courses need to have flexible study options and be family-friendly. Similarly, rostering needs to be study-friendly. Inadequate support of staff during their course and post-study (including access to educators) can be a deterrent. Rurally based nurses and midwives are more restricted in their course options than are those in metropolitan locations. Additionally, some components of their study require these individuals to find and fund their accommodation and travel costs.
Specific issues with the DHHS scholarships program	The timeframes are a mismatch, in terms of when people apply for scholarships and when they have to pay fees for their course. Communication by NMW Branch could be better coordinated and proactive. It is important to have good promotional information about the scholarships program. ANMF is willing to provide assistance with disseminating information about the scholarships. The method of applying for scholarships can be complex, confusing and difficult, particularly when multiple agencies are involved. A "common application form" idea for the core part of the scholarship application form is a good one that is worth considering.
The ANMF's own scholarship program	ANMF (Vic Branch) doesn't offer scholarships *per se*, but they provide grants that can go towards course costs. ANMF (Vic Branch) receives about 100 applications for ~$15,000 in total, split evenly between rural and metro. Their marketing is very proactive.

Practices within health services that may assist staff to undertake postgraduate training, or enable the health service to realise the benefits from that training	The culture within the workplace is very important, both the attitude of management and the attitudes of middle managers and staff. Support to attend study days and complete course requirements is important. The ability to access content online and other flexible options for study is making it easier to access PG study. Transition pathways to practice after study are very important, but there is also significant need for "transition to study" programs, to assist staff to properly prepare for the requirements of PG study. Additional financial support provided by the health service can assist with study-related costs.
Practices within health services that may inhibit the uptake of postgraduate training, or the utilisation of nurses with postgrad qualifications	Health services don't always market and equitably promote PG courses to their staff. A reduction in the number of clinical educators has reduced both direct and indirect support to staff undertaking postgraduate study. The support for nurse PG qualifications has decreased and this is a poor indicator for the future health of the profession and the system more broadly. The certificate allowance might be a factor in preventing health services encouraging staff to undertake PG training. Health services do not always have a very strategic approach to workforce development.
Is there a need for a guide or framework for health services on utilising PG trained N&M?	The transition from being supported as a PG student to practising independently is very important, so a framework that provides guidance on this would be useful. If such a framework were to be developed, it could use the transition guidelines for graduate nurses as a starting point. However, they cautioned against the idea that such a framework would be mandatory. There need to be mechanisms for ensuring transparency.
Other issues and suggestions	Maternal and Child Health (MCH) provides examples for the link between PG qualifications and patient outcomes. A portal with information about all scholarships would be great, but upkeep is critical. Some health services report they are not receiving sufficient T&D grant funding to support the nurses undertaking PG courses, particularly where the educators have to support the undergraduate students, graduate nurse/ midwifery programs, PG and continuing professional development education activities. Although the situation with mental health could be an exemplar for other areas of specialty practice, the mental health EBA requirement is based on historical circumstances in which psychiatric nurses were always specialty trained. So it might not be straightforward to implement similar requirements in other specialty areas. NMW Branch should consider: ▪ increased number of postgraduate positions ▪ full-fee funding of PG courses ▪ increased support for educators/clinical support ▪ potential for individual applications to the funding body (as opposed to being mediated through health services or regions) ▪ improved mechanisms for preceptorship and clinical supervision of the PG student ▪ employment certainty, without need to reduce employment to 0.8 FTE (although this option should be available) ▪ a strategic statewide approach to PG education.

A Regional Perspective: Grampians Region

To obtain more detailed information about how postgraduate training operates in a regional setting, interviews were conducted with two key informants from Grampians Region. The major findings from these interviews were:

- The allocation of DHHS scholarships is decided by an EDONs group that has representation from all the health services in the region. The EDONs come together to decide the number of scholarships that will be sought and how these are distributed amongst health services. Every effort is made to support the needs of the smaller health services. This group does not consider individual scholarship applications.
- As a major regional provider, Ballarat Health Services (BHS) is able to provide a range of supports (both financial and practical) for its nurses and midwives pursuing postgraduate study. However, there is a major need for innovative models for supporting sub-regional and small rural health services, who have smaller staff numbers and where the burden of releasing staff to undertake study is proportionally much greater. Grampians health services are generally very supportive of nurses and midwives undertaking study, but they can't always arrange backfill for staff taking study leave. BHS assists by providing learning opportunities and experience for nurses from the smaller regional health services.
- Another important requirement is to find ways of bringing the education to the nurses and midwives, rather than requiring them to travel to the education opportunities. Travel to study is becoming less of an issue, as many courses are online, but nurses and midwives still have to travel for some aspects of their courses. In terms of addressing this issue, the locally based university was criticised for becoming somewhat "disengaged from the region".
- A high proportion of the workforce (80-90%, based on 2010 figures) is working part-time because they have other responsibilities.
- While BHS does not directly measure the impact of having a postgraduate trained nursing and midwifery workforce, its high retention rate (i.e. 92 percent) could be used as a proxy measure of this.

A Specialist Provider Perspective: Royal Children's Hospital (RCH)

An interview was conducted with the Director of Nursing Education at RCH.

While RCH has no formal policy in relation to postgraduate nursing and midwifery education, one of the objectives within its strategic plan is to develop the nursing workforce of the future (e.g. through postgraduate education).

RCH has its own scholarship program (funded through philanthropic grants). It is a full-fee scholarship, but it is merit-based (to avoid a culture of entitlement). The application process includes a short interview in which applicants must describe how their postgraduate study will improve the care of children. Applicants must also obtain sign-off from their manager, as well as referee reports with recommendations. The scholarship program is over-subscribed, with 50-60 scholarships offered per semester. Some nurses also apply for DHHS scholarships.

The RCH program also allows nurses to undertake a research-based Masters and a high proportion complete the program. This is aided by having a Nursing Research Team. A number of Masters projects address issues within RCH and one thesis has resulted in changes to organisational practice.

In terms of identifying the intended outcomes from their postgraduate study, students usually nominate writing a clinical guideline. There are also defined pathways for advancement/ leadership in some areas of the hospital. Other demonstrations of the utilisation of postgraduate-trained nurses include:

- nurses reporting service delivery issues that need to be improved
- RCH clinical guidelines are evidence-based and postgraduate qualified nurses contribute to this
- professional development sessions (whole-of-hospital)
- journal club is conducted whole-of-hospital and is now well-attended (same level of attendance as general professional development)

A Private Health Perspective: Ramsay Health

While it was not strictly within the scope of this project, input was sought from a private health organisation. A representative from Ramsay Health was invited to participate and key findings from the interview with the Victorian Coordinator, Workforce Learning and Development are presented below.

Ramsay Health operates 69 hospitals and day surgery centres across Australia, including 16 hospitals and clinics in Victoria. Within Ramsay Health, education of their nursing workforce is part of planning for the future, the main objectives being up-skilling and staff retention. Ramsay Health operates its own in-house programs for nurses. This includes a program for graduate nurses ('Grad-Plus'), as well as a leadership program and they are in the process of developing a formal postgraduate training program. These in-house programs don't appear to dampen the enthusiasm of staff for undertaking formal postgraduate study, and may even encourage further study to some extent.

Ramsay Health provides a small number of scholarships for postgraduate study (10-12 nationally, twice per year, up to 24 per year). The scholarships cover the full cost of the course and are over-subscribed (i.e. more applicants than there are scholarships). Applications are merit-based and must be endorsed and supported by the staff member's hospital.

There are also some in-house support packages provided by individual Ramsay Health hospitals that contribute to course costs, leave allowances, etc. These are decided on a hospital-by-hospital basis.

Ramsay Health has no formal approach or policy for utilising the skills and knowledge of their postgraduate qualified nurses and midwives, although unit managers are encouraged to be familiar with the skills and knowledge of their staff. Managers are also expected to guide appropriately qualified staff to take up CNS roles or education roles.

Ramsay Health would welcome a framework or some form of guidance for utilising nurses with postgraduate qualifications.

The Departmental Perspective

Staff from Nursing and Midwifery Workforce, the Chief Nurse and Midwifery Officer and the Acting Chief Mental Health Nurse were interviewed to obtain a departmental perspective on the scholarship and T&D grant programs. While much of the input served as background or context for other consultations, the following key issues were highlighted.

- The high level objectives for the various scholarship programs and the T&D grants are to assist health services with training their staff, improving workforce capacity and tailoring education programs. The T&D grants are intended to be a *contribution* to health services to cover the costs of supporting the postgraduate study of nurses and midwives, specifically in the clinical component, which is usually in the first year of the program. Similarly, the scholarships are intended as a *contribution* to the costs of study for individuals; obtaining postgraduate qualifications is seen as a shared responsibility between the individual practitioner, the health service and the department.
- To understand the value and impact of the scholarship and T&D grant programs, it is useful to consider what would happen if the programs were discontinued. The likely outcome is that fewer staff would undertake postgraduate education, resulting in a gradual de-skilling of the workforce, particularly in the specialist areas.
- Historically, the department used to administer the distribution of all scholarships, but this became inefficient and burdensome for the department. Importantly, the department recognised it did not have the detailed local knowledge of workforce needs and service requirements necessary to make informed decisions about local scholarship allocation. Devolving these responsibilities to health services and regional committees was thought to be a better system, but presented some new administrative challenges, particularly in relation to communicating information about these programs. This is acknowledged as an area where improvements may be required, since reliance upon the networks within health services to distribute information means some information may not reach the target audience.

- In terms of the factors that affect the uptake of scholarships, the department recognises the high cost of courses and competing financial and personal demands of nurses and midwives as particular issues.
- The department acknowledges that the drivers for education providers and health services are not the same in relation to postgraduate education of nurses and midwives. Moreover, the very thing that makes delivery of a postgraduate course attractive to an education provider (i.e. the course fees) makes the course unattractive or unattainable to nurses and midwives.
- In mental health, funding for postgraduate scholarships is still handled by the mental health area of DHHS. A major difference between the mental health and general nursing scholarship programs has been the requirement for mental health nurses to have postgraduate qualifications above RPN3. Indeed, there has been no drop-off in demand for scholarships, but rather a steady increase. For example, the round of scholarships for first semester 2015 had 152 applications for 62 scholarships.
- Interestingly, the career pathways for postgraduate-trained mental health nurses are a bit restricted. The options for where staff go as they move up the profession are very limited. If they want to stay clinically active, they need to move towards nurse practitioner level, otherwise, they go into management. This has resulted in a lot of lateral movement rather than vertical movement.

3.3.2 Focus groups and surveys

To maximise the input from individuals within health services, stakeholders were provided with two options for participating in this review. Individuals could participate in both activities if they wished.

- Focus groups were conducted at seven sites around Victoria and these sessions were open to any individual wishing to attend, that is, they were not restricted to the employees of the health service hosting the sessions. Host sites were asked to arrange separate focus group sessions for senior managers, NUMs/ANUMs, and nursing and midwifery staff, if practical.
- Online surveys were conducted, with one survey for managers and a separate survey for nursing and midwifery staff.

Similar issues were canvassed in the focus groups and surveys, although the surveys allowed individuals to provide more detailed responses contextualised in their particular circumstances. On the other hand, the focus groups allowed a more free-flowing dialogue with participants, providing input that is more challenging to obtain through a structured survey. As the two activities produced overlapping and complementary input, this section will present the combined findings of the surveys and focus groups.

Demographics of participants

Table 9 summarises the focus groups that were conducted. Focus group participants were not asked to identify themselves or provide any detail about their profession, employment level, age group or qualifications. Therefore, there is no demographic information available for this group of participants.

Table 9: Summary of focus groups conducted across Victoria

Focus group site	Senior managers	NUM/ANUM	N&M staff
Barwon Health	✓	✓	✓
Eastern Health	✓	✓	✓
Echuca Regional Health	✓	✓	x 2
Latrobe Regional Hospital	✓	✓	✓
Monash Health	✓	✓	✓
Northeast Health Wangaratta	✓	x 2	
Peninsula Health	✓	✓	✓

For the survey targeted to nursing and midwifery staff, there were 502 complete responses.

- 90 percent of respondents indicated they are registered nurses; 14 percent indicated they are midwives.
- 88.5 percent of respondents were female.
- Respondents were evenly spread across the four age categories between 21 and 60.

Table 10: Age profile of nurse/midwife survey respondents

Age group	Count	Percent
21 – 30	134	27%
31 – 40	117	23%
41 – 50	132	26%
51 – 60	100	20%
> 60	19	4%

- 89 percent of respondents indicated they only work at one health service, almost all (99 percent) of which are public health services in the following categories:
    - Metropolitan – 70.4 percent
    - Large regional – 11.7 percent
    - Sub-regional – 7.4 percent
    - Small rural – 10.5 percent
- For the 11 percent of respondents that work at more than one health service, almost all (96.4 percent) indicated their primary employer is a public health service, while about half (48

percent) indicated their secondary employer is a private health provider. A similar breakdown of metropolitan/large regional/sub-regional/small rural was reported by these respondents as was reported by those who only have one employer.

- Almost two-thirds of respondents (64.7 percent) indicated they have already completed at least one postgraduate qualification, while 10.8 percent indicated they have never undertaken postgraduate study and do not plan to do so in the foreseeable future. Of those individuals that have completed at least one postgraduate course, the time between obtaining their registration and commencing their first postgraduate course varied.

Table 11: Elapsed time between registration and first postgraduate course – nurses and midwives

Elapsed time	Count	Percent
Less than 1 year	10	3%
1 – 2 years	92	28%
3 – 5 years	104	32%
> 5 years	119	37%

For the survey targeted to managers, there were 346 responses (including partial responses).

- 90.7 percent of respondents were female.
- More than 70 percent of respondents were in the two age categories between 41 and 60.

Table 12: Age profile of manager survey respondents

Age group	Count	Percent
21 – 30	15	4%
31 – 40	65	19%
41 – 50	134	39%
51 – 60	113	33%
> 60	18	5%

- 94.5 percent of respondents indicated they work in a public health service, with a distribution across the various categories as follows:
    - metropolitan – 64.9 percent
    - large regional – 11.6 percent
    - sub-regional – 10.4 percent
    - small rural – 13 percent.
- Respondents identified their current position as a senior manager (EDON/M or DON/M), a middle manager (NUM or ANUM), an education-related position, or another category of manager. *Manager – Other* included individuals that described their position as HR manager, quality manager, access manager, coordinator, site manager, program director or manager, and senior practitioner.

Table 13: Profile of manager survey responses – category of position

Current position	Count	Percent
EDONM or DONM	49	14%
NUM or ANUM	145	42%
Education (Director, Manager or Educator)	118	34%
Manager – Other	33	10%

- A significant majority of respondents indicated they have completed at least one postgraduate qualification in nursing or midwifery, including 84 percent of NUM/ANUM respondents and 92 percent of EDON/DON respondents. Only 7.3 percent of manager respondents indicated they have never undertaken postgraduate study and do not plan to do so in the foreseeable future. Of those individuals that have completed at least one postgraduate course, the time between obtaining their registration and commencing their first postgraduate course varied similarly to what was reported by nurses and midwives:

Table 14: Elapsed time between registration and first postgraduate course – managers

Elapsed time	NUM/ANUM	EDON/DON
Less than 1 year	3%	3%
1 – 2 years	25%	24%
3 – 5 years	28%	38%
> 5 years	43%	38%

Factors that influence decisions to undertake postgraduate study

Survey participants that have completed postgraduate study or who are currently enrolled in a postgraduate course were asked to nominate the key factors that influenced their decision to undertake study. Respondents were asked to nominate all factors that were relevant to them from a list and could add other factors in an open text response. Responses from nurses and midwives currently enrolled in study were analysed separately from those who have already completed study and the senior managers (EDON/DON) were analysed separately from middle managers (NUM/ANUM). The results are presented in Table 15. Statistical significance testing was applied to these responses. A group's proportion of positive responses was significantly different to the rest of the group if the probability (p-value) was less than 0.05, signified by '*'. Any p-values less than 0.01 were deemed to be highly significant and marked by '**'.

Table 15: Factors influencing decisions to undertake postgraduate study

Factor	N&M currently enrolled	N&M already completed	NUM/ANUM already completed	EDON/DON already completed
Career prospects likely to improve	77%	73.5%	70.5%	88%
Interest in the subject area	60%	65%	69.5%	73.5%
Interested in working in a particular specialty area and this required a postgraduate qualification	45%	46%	55%	62%
Looking for a challenge	47%	38%	40%	44%
Like to study	36%	32%	30.5%	47%
Encouragement and support of employer	31%	26%	31.5%	29%
Never be a better time	41%**	21%	17%	20.5%
Recommendation from a friend/colleague about the course	16%	15%	18%	0%*
Interested in the financial rewards of having a postgraduate qualification	11%	12%	9.5%	6%
There is prestige associated with postgraduate qualifications	12%	10%	9.5%	12%
Needed a job and the position obtained included a requirement to undertake postgraduate study	15%	9%	6%	3%
Bored in previous work role	11%	6%	2%	3%

In terms of the ranked order of the various factors, there was considerable agreement between the four groups of survey respondents, particularly for the factors listed in the top half of Table 15. Notable differences between the factors nominated by the various groups of respondents include:

- EDON/DON respondents were more likely than the other groups to nominate *career prospects likely to improve* and *like to study* as key factors.
- Nurses and midwives currently enrolled in postgraduate study were more likely than the other groups to nominate *never be a better time*, *needed a job and the position obtained included a requirement to undertake postgraduate study* and *bored in previous work role* as key factors.

- No EDON/DON respondents nominated *recommendation from a friend/colleague about the course* as a key factor.

In terms of the other factors nominated by respondents, a number of individuals commented along the lines that they believe in lifelong learning, wanted to improve themselves as a practitioner, wanted to address a knowledge gap they recognised in themselves, or believe that further study is part of being a professional nurse.

Nurse and midwife informants that participated in focus groups indicated similar factors have influenced their decisions about undertaking postgraduate study, although the most commonly raised factors related to the perceived need to undertake postgraduate study to work in higher acuity or specialised areas, or to achieve promotion to a role with more responsibility.

Impact of course costs on decisions to study

Nurses and midwives that were undertaking postgraduate study or considering postgraduate study were asked to rank the reasons they have not undertaken study until now. The number one reason cited by both groups was *the financial cost of postgraduate study*. Indeed, for staff considering postgraduate study (n = 97), 81 percent nominated *whether I can afford the cost of the course* as a key factor that will determine whether they enrol in the course or not. Amongst this group, the importance of receiving some kind of financial assistance was quite significant (see Table 16).

Table 16: Importance of receiving financial assistance

Level of importance of financial assistance	Percent
Essential, I couldn't consider postgraduate study without it	45.4%
Fairly important, but I might be able to do the course without it	42.3%
It would be nice to have, but I could definitely do the course without it	12.4%
It's not important to my decision to study	0%

Indeed, even amongst managers, financial assistance was reported as a significant factor, with three of the four NUM/ANUM survey respondents that are currently considering postgraduate study indicating that receiving some kind of financial assistance is *essential*.

For the nursing and midwifery respondents considering further study, 90 percent indicated the likelihood of them undertaking study would increase if the value of the scholarships were higher (that is, if the scholarship covered a greater proportion of the total cost of the course).

Nurses and midwives that have never undertaken study and don't intend to also reported the costs associated with study as an important factor. Amongst those respondents (n = 54), 68.5 percent nominated *I can't afford to study from a financial perspective* as one of the main reasons for their decision not to undertake study. Indeed, this reason was nominated more than any other reason. On the other hand, amongst respondents that had commenced but not completed postgraduate study in the past (n = 26), only 19 percent nominated the cost of the course as a reason for discontinuing their studies, with four other (non-financial) reasons nominated by more individuals as being important.

On this last point, all survey respondents that had completed or were currently enrolled in postgraduate study were asked if they had experienced any difficulties while undertaking study. A sizeable proportion of respondents in all categories nominated *covering the financial costs of the course* as one of their difficulties, specifically:

- 67.7 percent of managers
- 53.0 percent of nurses/midwives that have already completed postgraduate study
- 44.7 percent of nurses/midwives currently enrolled in postgraduate study.

However, for all categories of respondents, this was the third most nominated issue, after *juggling work, family and other commitments* and *finding the time to study*.

Against this backdrop, it was interesting that nearly one-third of nurses and midwives (28.9 percent) that had indicated they are considering postgraduate study (n = 97) were not aware of the scholarships that are available to support postgraduate study. Moreover, amongst all respondents to the survey targeted to nurses and midwives, 73 percent indicated they were not aware of the

scholarships offered by DHHS prior to undertaking the survey. Perhaps of more concern, amongst respondents to the survey targeted to managers, 27 percent of senior managers and 72 percent of NUMs/ANUMs indicated they were not aware of the department's scholarships prior to undertaking the survey. As a whole, focus group participants seemed to be more aware of the DHHS scholarships than survey participants, particularly amongst the managers.

Informants that participated in focus groups provided similar feedback to that obtained through the surveys, in relation to the impact of course costs on decisions about undertaking study.

Amongst nursing and midwifery staff, the cost of courses was usually one of the first issues raised when they were asked about the factors that had influenced their decisions regarding study. Many informants noted they have to apply and pay for their first semester of study before they find out if their scholarship application has been successful and it was apparent this represents a hardship for many individuals. Many staff commented that the course costs were not the only financial impost of undertaking study, since they generally reduce their employment fraction while they are a student. Some individuals in regional areas noted their nursing income represents the only reliable income for their family (the other source of income being from farming activities), which adds to the financial pressure. Participants in regional focus groups also noted they have additional costs for travel and accommodation and not all health services provide assistance with these costs.

Middle and senior managers that participated in focus groups were also of the view that course costs can be very high – "prohibitive" was one description – and this is a significant issue for some staff. Indeed, one middle manager commented that some courses are so costly, there is a concern the only applicants will be those that can afford the costs of study, but not necessarily the staff who would be the best suited for the course. One senior manager noted that high course costs would also make the idea of postgraduate study for generalist nurses unappealing, since a generalist qualification might not be linked to a particular role or level of responsibility.

Issues impacting on successful completion of postgraduate study

Respondents in both the manager and nurse/midwife surveys were asked whether they had experienced any difficulties in completing their postgraduate studies; nurses and midwives currently enrolled in a course were asked if they had experienced any difficulties to date. For managers and nurses/midwives that have already completed postgraduate study, a large majority reported no difficulties (76 percent of managers; 79 percent of nurses/midwives), whereas only 49 percent of nurses/midwives currently undertaking study reported no difficulties to date. Individuals that reported experiencing difficulties were asked to specify the nature of the problems; the results are presented in Table 17. Statistical significance testing was applied to these responses, with a significant result (p-value < 0.05) signified by '*'.

Table 17: Difficulties reported by survey respondents in completing postgraduate study

Reported difficulty	N&M currently enrolled	N&M already completed	Managers already completed
Juggling work, family and study commitments	92%	79%	85%
Finding time to study	68%	70%	72%
Covering the financial costs of the course	45%	53%	68%
Remaining motivated to study	42%	36%	34%
Understanding and/or meeting the academic requirements of the education provider	18%	30%	25%
Managing the negative perceptions of employer and/or work colleagues	10.5%	26%*	11%
Understanding and/or meeting the administrative requirements of the education provider	10.5%	14%	8%
Understanding the course content	10.5%	9%	6%

The results reveal some interesting comparisons between the groups of respondents. The first point of note is that all three groups rated the eight difficulties in the same order, although some issues were more or less important for some groups than for others. For example, while *juggling work, family and study commitments* was at the top of the list for all three groups, nurses and midwives currently enrolled in study were more likely to nominate this as a difficulty than the individuals that had already completed study. This might reflect the immediacy of the issue for those currently enrolled in a course.

On the other hand, managers were more likely to nominate *covering the financial costs of the course* and nurses and midwives that had already completed postgraduate study were more likely to nominate *managing the negative perceptions of employer and/or work colleagues*. There was also an interesting difference between nurses and midwives currently enrolled in study and those who had already completed study in whether they reported difficulty *understanding and/or meeting the academic requirements of the education provider*.

As a counterpoint to the question of difficulties experienced while undertaking study, survey respondents were asked about the support they received, particularly from their health service or hospital. The results are shown in Table 18. Statistical significance testing was applied to these responses, with a highly significant result (p-value < 0.01) signified by '**'.

Table 18: Support provided by employers during postgraduate study

Support provided by employer	N&M already completed	N&M currently enrolled	Managers currently enrolled
No support	20%	20%	22%
Access to study leave allocation, as per the EBA	60%	73%	61%
Additional time off to study, above the required study leave allocation	13%	9%	6%
Supernumerary time/days	23%	19%	6%
Changes to roster, duties or responsibilities to be more compatible with study	39%**	27%	0%**
Access to educators	46%**	37%	0%**
Mentoring	21%	20%	11%

The most striking difference between the three groups of respondents shown in the table is that managers currently enrolled in postgraduate study (n = 18) reported much lower levels of support than nurse/midwife respondents, in terms of additional time off for study, supernumerary time, changes to rosters and access to educators. This most likely reflects the nature of the postgraduate courses these managers were enrolled in (mostly administration and management courses that don't include a clinical component). However, it is interesting that significantly less than 100 percent in all three categories of respondents indicated they have had access to their study leave allocation as per the EBA, while around 20 percent of all respondents indicated they received no support from their employer whatsoever. Moreover, given the majority of nurses and midwives had undertaken postgraduate study with a clinical component, it is interesting that significant proportions of these respondents (63 percent of individuals currently enrolled and 54 percent of those already completed) indicated they did not have access to educators.

The support provided by employers did vary between health service categories. For example, amongst nurses/midwives that had already completed postgraduate study, access to educators was reported by 52 percent of respondents in metropolitan health services, 42 percent in large regional, 29 percent in sub-regional and six percent in small rural health services. Overall, amongst staff that had already completed postgraduate study, those from metropolitan health services were more likely to have received access to the EBA study leave allocation, changes to their roster to be more compatible with study and access to educators. On the other hand, staff from small rural health services were much less likely to have had access to supernumerary time or access to educators and more likely to report that no support was provided.

Nurses and midwives were also asked about the support provided by education providers to assist students with undertaking courses. Not all respondents answered this question in the survey, but amongst those that did respond, roughly 20 percent indicated they received little or no support from the education provider. Examples of support provided by respondents included:

- access to lecturers and/or tutors (both face-to-face and via email)
- online resources, including forums
- periodic study days
- in-hospital clinical educators
- study units or programs providing an introduction to study/introduction to research
- extension on assignments when needed
- access to library resources.

Complementing these results, managers were asked whether education providers for the courses undertaken by their staff provided enough support for postgraduate students. Middle managers, who are possibly more aware of the day-to-day issues for staff undertaking study, were less likely to rate current levels of support provided by education providers as sufficient than were senior managers.

Table 19: Support provided by education providers

"Do education providers that offer the courses undertaken by your staff provide enough support to postgraduate students?"	NUM/ANUM	EDON/DON
I don't know	31%	40%
Yes	34%	40%
No	35%	20%

When asked what additional support education providers should offer, suggestions included:

- more face-to-face contact
- better online resources and/or better access to those resources
- printed versions of course materials
- higher staff:student ratios.

Survey respondents were also asked about policies and practices within health services that are either designed to encourage staff to undertake postgraduate study, or which might have the effect of discouraging staff from undertaking postgraduate study.

Table 20: Health service policies and practices that encourage or discourage postgraduate study

"Are you aware of policies or practices in your hospital that are designed to encourage staff to undertake postgraduate study?"	Nurses and midwives	NUM/ ANUM	EDON/DON
Yes	33%	35%	66%
No	67%	65%	34%

"Are you aware of policies or practices in your hospital that might discourage staff from undertaking study?"	Nurses and midwives	NUM/ ANUM	EDON/DON
Yes	18.5%	17%	17%
No	81.5%	83%	83%

In terms of policies and practices that are designed to encourage postgraduate study, senior managers were significantly more aware of such examples than either middle managers or staff. Examples provided by respondents included:

- a prominent education culture within the hospital
- professional development policies, including discussion at annual performance appraisal
- regular information sessions promoting postgraduate study
- "stepping stone" short courses or specialty rotations that guide nurses into study pathways
- positions that require staff to undertake study

- career progression incentives
- flexible rostering
- access to study leave
- access to supernumerary time
- scholarships and other financial support, including loans
- salary certificate/qualification allowance
- mentoring programs.

On the other hand, less than 20 percent of all three groups of respondents were aware of policies or practices that might discourage nurses and midwives from undertaking postgraduate study. Examples provided by respondents included:

- managers that are not very encouraging or supportive
- health service preferentially employs nurses without postgraduate qualifications, to avoid paying certificate loading
- capping the number of staff that can undertake study at any given time
- insufficient staffing to cover any leave
- suitable courses not being offered locally
- difficulty accessing paid study leave
- insufficient financial (i.e. scholarship) support compared to the cost of the course
- inflexible rostering
- lack of guaranteed employment upon completion of studies
- lack of substantial increase in wage/salary after successfully completing studies.

The findings from the surveys – in respect of the difficulties encountered while completing study, the support provided by education providers and the policies and practices of health services that either encourage or potentially discourage staff in relation to postgraduate study – were largely mirrored in the focus groups conducted across Victoria. Focus group participants were able to provide more detail about some health service practices or elaborate on their personal experiences with particular education providers or courses, but the range of inputs and perceptions was very similar to those provided through the surveys.

However, one point that came across quite clearly from the focus groups was that regional and rural health services have fewer mechanisms at their disposal for encouraging their nursing and midwifery workforce to undertake postgraduate study. They are generally drawing on a smaller pool of available staff and therefore have less ability to provide flexible rostering or access to supernumerary time for staff undertaking study. It was apparent that many regional health services have positive and supportive cultures in respect of education more broadly and postgraduate education for nurses and midwives more specifically. But it was also apparent that regional hospitals find it more challenging to provide opportunities, incentives and encouragement to their workforce to undertake postgraduate education.

Benefits of postgraduate study

The review examined the question of the benefits arising from postgraduate training of nurses and midwives from a number of perspectives, including benefits for the practitioners themselves, benefits to patients, and benefits to the hospitals/health services that employ the postgraduate-trained staff. The review also explored how health services go about realising the benefits of having a postgraduate-trained workforce. Each aspect will be explored below.

In terms of benefits to the individual practitioner, survey respondents were asked a number of questions relating to this issue. All survey respondents that had already successfully completed a postgraduate course were asked to rate their level of agreement with a range of statements concerning their experiences following completion of their studies. The results are presented in Table 21 and show the proportion of respondents in each category that responded *strongly agree* or *agree* to each statement.

Table 21: Practitioner perceptions of the benefits of postgraduate study for their own development

Statement	Nurses and midwives	All managers
Completing a postgraduate qualification improved my level of job satisfaction	74%	89%
My level of knowledge and understanding increased as a result of completing postgraduate study	96%	98%
My level of skill improved as a result of completing postgraduate study	95%	94%
My critical thinking skills improved as a result of completing postgraduate study	95%	95%
My confidence in clinical practice improved as a result of completing postgraduate study	94%	93%
My level of confidence about participating in multidisciplinary clinical teams improved as a result of completing postgraduate study	89%	83%
I help other nurses/midwives to improve their knowledge, skill or practice	96.5%	n/a
I improved in my ability to educate junior colleagues as a result of completing postgraduate study	92%	92%
I am now more able to apply critical thinking skills to my practice than before I obtained my postgraduate qualifications	88%	n/a
The health service seems to value my postgraduate qualifications	44%	67%
I have been able to utilise the knowledge and skills I obtained through my postgraduate study	88%	94%
Having a postgraduate qualification has assisted my career development	77.5%	87%
Completing postgraduate study has increased my interest in further study	60.5%	76%
Completing postgraduate study increased my interest in research	45%	51%

It is evident from this analysis that staff and managers had similar perceptions of the impact of postgraduate study on their own development as a practitioner. The most notable differences between the responses of nurses/midwives and managers were in relation to levels of job satisfaction, perceptions of the value of their postgraduate qualifications to their employer and whether the qualification has assisted their career development. Staff were also less likely to report increased interest in further study or research following their postgraduate study.

Of course, these results reflect subjective assessments and may not provide a particularly reliable indication of the benefits or outcomes of undertaking postgraduate education. For this reason, survey respondents were also asked to consider similar statements in relation to *other* nurses and midwives who they were aware had completed postgraduate study.

Table 22 (overleaf) shows the responses from various groups of informants in relation to the outcomes for *other* nurses and midwives, compared to responses from nurses/midwives for themselves (as per Table 21). The *Other managers* group includes EDON/DON respondents, HR managers, quality managers and education staff. Within this group, different categories of managers were asked to comment only on those statements for which they were likely to have an informed opinion and therefore the tabulated results reflect whichever managers were asked to comment on that particular statement. The last two rows in the table show statements that respondents were asked to consider in relation to others, but which the nurses and midwives had not been asked to consider in relation to themselves.

From the tabulated results, it would appear the self-assessed benefits/outcomes were reasonably well matched to the objectively assessed outcomes for some of the statements, but less well matched for other statements. For example, the two statements relating to education of others (*Helps other nurses/midwives to improve their knowledge, skill or practice* and *Improved ability to educate junior colleagues as a result of completing postgraduate study*) were rated significantly higher in the self-assessment than in the assessment by others. Likewise, nurses and midwives were more likely to perceive improved levels of job satisfaction in themselves than were perceived by others. On the other hand, other managers were far more likely to indicate that postgraduate qualifications of staff are valued by the health service than any of the other groups. As the *other managers* group included the more senior managers, this would suggest that perceptions of the

value of postgraduate qualifications differ across the various levels of the organisation. Senior managers may very well highly value the additional education and training undertaken by their staff, but it would appear this fact is not effectively communicated to the staff.

Table 22: Comparison of self-assessment and objective assessment of benefits of postgraduate study

Statement	N&M self-rating	Rating of other N&M staff		
		N&M	NUM/ANUM	Other managers
Completing a postgraduate qualification improved the level of job satisfaction	74%	55%	56%	59%
Level of knowledge and understanding increased as a result of completing postgraduate study	96%	90%	90%	98%
Level of skill improved as a result of completing postgraduate study	95%	85%	83.5%	94%
Critical thinking skills improved as a result of completing postgraduate study	95%	-	-	96%
Confidence in clinical practice improved as a result of completing postgraduate study	94%	87%	88%	94%
Level of confidence about participating in multidisciplinary clinical teams improved as a result of completing postgraduate study	89%	-	-	83%
Helps other nurses/midwives to improve their knowledge, skill or practice	96.5%	80.5%	77%	83%
Improved ability to educate junior colleagues as a result of completing postgraduate study	92%	68%	63.5%	78%
The health service seems to value their postgraduate qualifications	44%	46%	48%	76%
Can't tell the difference between staff who have postgraduate qualifications and those who don't	-	23%	19%	12%
Less likely to be involved in adverse events or RiskMan reportable incidents	-	-	28%	33%

The final two statements in Table 22 were included in the survey questions presented to some groups of informants to test possible measures of the benefits/outcomes from postgraduate training of staff. Early in this project, some informants had indicated anecdotally that it was always obvious which staff had undertaken postgraduate education just by speaking with them or observing their work. Other informants had commented that postgraduate-trained staff are less likely to make the kinds of errors that result in RiskMan reportable incidents. It was therefore interesting that 23 percent of nurses and midwives and 19 percent of frontline managers (NUMs/ANUMs) indicated they couldn't necessarily tell the difference between staff who have postgraduate qualifications and those who don't. Moreover, 28 percent of NUMs/ ANUMs and 33 percent of quality managers indicated that postgraduate-trained staff are not less likely to be involved in RiskMan reportable incidents.

The question of benefits or positive outcomes for individual practitioners through undertaking postgraduate study was also discussed in every focus group. Although not possible to quantify, nurses and midwives that participated in focus groups generally agreed that undertaking postgraduate study brought benefits to the individual, even if they differed in their opinion of what the major benefits were. Some staff saw the benefits mainly in terms of the opportunities to work in particular areas or with more acutely ill patients, or in terms of promotion or remuneration, but the majority saw the benefits more in terms of their personal growth as a practitioner. Managers (both middle and senior level) mainly saw the benefits in terms of the professional development of the individual.

Overall, the input from focus group informants broadly mirrored survey input, but the most commonly received comment in focus groups was that *postgraduate education improves the critical thinking skills of nurses*. Managers and educators invariably said this in relation to their staff and the staff frequently said this in relation to themselves. Unsurprisingly – and virtually without exception – focus group participants noted that postgraduate study increases skill and knowledge levels, although not all informants were of the view that confidence necessarily increased simply as a consequence of completing a postgraduate course. Indeed, there was considerable agreement that staff who have undertaken postgraduate study require a further period of consolidation to really build their levels of confidence.

Amongst nurse and midwife focus group participants, there was occasionally a sense of frustration and disillusionment about how little recognition there had been for their growth as a practitioner through the study they had undertaken. Perhaps the most concerning piece of feedback was received from a nurse in a regional focus group who commented:

> *"Sure, my knowledge improved and my level of skill increased, but so what? At the end of the day, I'm still just a nurse and no one cares what I think."*

However, this kind of feedback was the exception and informants overwhelmingly agreed that undertaking postgraduate education is worthwhile and would recommend postgraduate study to their colleagues (see Table 23).

Table 23: Proportion of respondents with a favourable view of postgraduate education

	Nurses and midwives	NUM/ANUM	EDON/DON
Overall, undertaking postgraduate study was worthwhile	92.5%	96%	100%
I would recommend postgraduate study to my colleagues	87%	91.5%	100%

In terms of benefits to patients, survey respondents were asked whether having postgraduate-trained nurses or midwives resulted in direct patient benefits. A significant majority of respondents in all categories believed there to be direct benefits (Table 24).

Table 24: Perceptions about direct benefits to patients

"Do you think there are direct benefits for patients from having postgraduate-trained nurses or midwives providing their care?"	Nurses and midwives	NUM/ ANUM	EDON/DON
Yes	88%	90%	94.5%
No	3%	4%	0%
Not sure	9%	6%	5.5%

When asked what the direct benefits are, most respondents commented along the lines that postgraduate-trained staff have greater knowledge and skills than their colleagues without postgraduate education, which naturally results in better care of the patient. A large number of responses mentioned improved critical thinking skills, enhanced ability to anticipate outcomes or recognise issues that could impact on outcomes, awareness of evidence-based practice and research, and a more integrated and holistic understanding of pathophysiology. Respondents also mentioned enhanced ability to manage patients with complex care needs and enhanced capacity to guide the work of others, thereby improving the overall care provided to patients, not just the care provided by themselves.

Focus group participants were also asked for their views about benefits for patients. There was general agreement there are benefits for patients and many similar themes emerged from those discussions as came through the open text responses in the surveys. One theme that particularly emerged through the focus groups was that it was "unthinkable" that a nurse without a postgraduate qualification would be asked to look after an acutely ill patient, since such a nurse would not have the essential knowledge and skills to ensure the best possible outcome for that patient.

When asked if their health service monitors the impact of postgraduate-trained nurses and midwives on patient outcomes, no focus group participants at any level could identify if or how such

monitoring was occurring. As they considered the question, many focus group informants acknowledged the difficulty of explicitly determining which aspects of patient outcomes could be attributable to the educational level of staff. Some managers related their experience in particular hospital units and explained how up-skilling of staff had major impacts on patient outcomes, but no examples of data collection or analysis were cited.

Similar results were obtained in relation to benefits for health services. When survey respondents were asked whether having postgraduate-trained nurses or midwives resulted in direct health service benefits, a significant majority of respondents in all categories believed there to be direct benefits (Table 25), although the staff and middle managers were slightly less sure of these benefits than the benefits for patients.

Table 25: Perceptions of direct benefits to health services

"Do you think there are direct benefits for the health service from having a PG-trained nursing and midwifery workforce?"	Nurses and midwives	NUM/ ANUM	EDON/DON
Yes	86%	88%	97%
No	2.5%	4%	0%
Not sure	11.5%	8%	3%

In terms of the direct benefits for health services that were identified, aside from improved patient care and outcomes (which were the majority of responses), most responses focussed on workforce-related benefits such as improved recruitment, retention and succession planning; a more efficient and productive workforce; and higher levels of staff satisfaction and staff morale. Other benefits included a better organisational culture; a more innovative organisation; and the ability to offer a broader range of services to patients.

Through surveys and focus groups, all participants in this review were asked about the mechanisms through which their health service realises the benefits of having a postgraduate-trained nursing and midwifery workforce. The purpose of this line of enquiry was to determine whether organisations have a deliberate strategy for ensuring the value of enhanced skills and knowledge is being leveraged – and if so, what that strategy is – or whether there is a more passive approach to translating the educational value-add into realised benefits.

In addressing this issue, the project team drew on the mechanisms for realising benefits that had been identified through the development of the logic model. Survey respondents were asked which of the seven listed mechanisms they are aware of within the health service at which they are currently employed. The results are presented in Table 26.

Table 26: Awareness of mechanisms for realising the benefits of having postgraduate-trained staff

Mechanism for realising benefits	Nurses and midwives	NUM/ ANUM	EDON/DON
Formal opportunities for postgraduate-trained staff to share their newly acquired skills and knowledge with other staff	38%	46%	73%
Defined pathways to leadership and managerial roles for postgraduate-trained staff	26%	44%	35%
Opportunities for postgraduate-trained staff to undertake or participate in research as part of their normal duties	28%	31.5%	49%
Guidance to help postgraduate-trained staff develop educational and/or presentation skills	31%	44%	65%
Public acknowledgement within the health service when a staff member completes postgraduate study	29%	40.5%	78%
An explicit process to redefine a staff member's role, scope of practice or level of responsibility to take account of postgraduate knowledge and skills	17%	27%	35%
Performance appraisals that include a review of how the newly acquired knowledge and skills of staff are being utilised in the workplace	39%	53%	70%
I'm not aware of any mechanisms to realise the benefits of having postgraduate-trained staff	31%	13.5%	5%

The first point of note from these results is that none of the seven mechanisms identified through the logic modelling process is being universally implemented across the system, at least, not as far as these informants are aware. Moreover, if *awareness* of a particular mechanism is taken as *de facto* evidence the mechanism is in place and being routinely used, then the gap between the awareness of EDON/DON respondents and other respondents either represents a differential application of these mechanisms for different levels of staff, or it suggests that health services do not communicate information about these mechanisms particularly well to middle managers and staff. In this context, it is interesting that a higher proportion of NUM/ANUM respondents than EDON/DON respondents indicated awareness of *defined pathways to leadership and managerial roles for postgraduate-trained staff*.

Interestingly, awareness of the various mechanisms did not correlate with whether the respondent had ever undertaken postgraduate study themselves. For example, amongst nurse/midwife respondents, regardless of whether the respondent had never undertaken postgraduate study, had successfully completed postgraduate study, was currently enrolled in a course or currently considering enrolling, they were equally likely to be aware of the various mechanisms, or to be aware of none of the mechanisms. This suggests that awareness of these mechanisms is not simply a reflection of whether the mechanism is directly relevant to the individual, but also reflects what respondents see happening around them to other staff.

Of course, awareness (or otherwise) of these mechanisms is not an indication of whether any of these mechanisms should be implemented within health services. Therefore, survey participants were asked firstly, whether they believe any (or all) of the mechanisms should be implemented and secondly, which of the suggested mechanisms they think should be implemented. Respondents generally agreed that if any (or all) of the listed mechanisms were not operating in their workplace, they should be implemented (97 percent of nurses/midwives; 89 percent of NUMs/ANUMs; 94 percent of senior managers). Amongst the small number of respondents that did not think these mechanisms should be implemented, the concerns fell broadly into three groups:

- Some of the suggested mechanisms are not particularly worthwhile ideas or may not be applicable in all contexts.
- Not all staff that complete postgraduate study wish to move into research, leadership, managerial or educational roles.
- Implementing these mechanisms would require resources that health services don't have.

Table 27 shows that respondents were evenly divided about which mechanisms should be implemented. Interestingly, EDON/ DON survey respondents were not particularly enthusiastic about the suggested mechanism involving performance appraisals.

Table 27: Mechanisms that should be implemented in health services

Which of the following mechanisms for realising benefits should be implemented in your health service?	Nurses and midwives	NUM/ ANUM	EDON/DON
Formal opportunities for postgraduate-trained staff to share their newly acquired skills and knowledge with other staff	67.5%	64%	55%
Defined pathways to leadership and managerial roles for postgraduate-trained staff	67%	65%	58%
Opportunities for postgraduate-trained staff to undertake or participate in research as part of their normal duties	66%	62%	58%
Guidance to help postgraduate-trained staff develop educational and/or presentation skills	67%	64%	58%
Public acknowledgement within the health service when a staff member completes postgraduate study	53%	52%	45%
An explicit process to redefine a staff member's role, scope of practice or level of responsibility to take account of postgraduate knowledge and skills	64%	61%	45%
Performance appraisals that include a review of how the newly acquired knowledge and skills of staff are being utilised in the workplace	53%	53%	26%

Focus group participants were also asked whether there are explicit mechanisms in place within their organisation to realise the benefits of having a postgraduate-trained workforce. Participants in most focus groups could identify activities or expectations relating specifically to postgraduate-trained staff, particularly when prompted with examples of possible mechanisms as per the list in Table 26. The most commonly cited examples of mechanisms by focus group participants were performance appraisals, journal clubs and quality improvement projects.

However, most focus group informants acknowledged the *ad hoc* and informal nature of their processes. Many also noted there was no explicit understanding that the particular activities or expectations were to ensure the full value of postgraduate training is realised, both by the individual and by the health service. Indeed, one manager in a regional health service noted the survey question with the list of possible mechanisms had provided a useful checklist for how her organisation might actually ensure it is utilising its postgraduate-trained workforce.

This feedback prompted a suggestion of some form of framework that provides guidance to health services about how to ensure the benefits of postgraduate education are being fully realised. This suggestion was tested through the surveys and focus groups and received a generally favourable response, although focus group participants were keen to ensure such a framework is non-mandatory. Table 28 reveals that 43 percent of managers believe health services would *definitely* welcome such a framework, with a similar percentage indicating health services would *possibly* welcome this initiative.

Table 28: Stakeholder acceptance of a guidance framework

"Do you think health services would welcome the development of a framework that provides guidance for health services about supporting the uptake of PG education by nursing and midwifery staff and mechanisms for best utilising those staff who are postgraduate trained?"	NUM/ ANUM	EDON/ DON
Yes, definitely	43%	43%
Possibly	43%	41%
Not sure	13%	16%
Definitely not	1%	0%

Finally in relation to the benefits of postgraduate education, focus group and survey participants were asked if they were aware of any policies or practices within their health service that undermine the full utilisation of the enhanced skills and knowledge of staff with postgraduate qualifications. Amongst survey participants, 14 percent of nurses/midwives, 12 percent of NUMs/ANUMs and 13.5 percent of EDONs/DONs indicated they were aware of such policies or practices. Examples provided included:

- attitudes of middle and senior managers that are anti-postgraduate education
- lack of awareness of the postgraduate qualifications of staff
- delaying appointing postgraduate qualified staff to more senior positions to avoid paying higher salary
- lack of time or support to allow consolidation of new skills and knowledge
- deferring to medical staff whose preference is that advanced practice by nurses be discouraged
- lack of explicit guidelines from the profession, which allows health services to make their own rules.

How the system is working

The review also addressed the question of how – and how well – the current system is working. The intent of the department, at least in respect of the DHHS scholarships and T&D grant, is that workforce development of nursing and midwifery staff through postgraduate education is a reflection of workforce priorities to improve patient outcomes. These priorities are determined by individual health services in metropolitan Melbourne and on a whole-of-region basis in regional Victoria. Moreover, individual health services are expected to factor postgraduate training of staff into workforce planning, to ensure there are adequate appropriately trained staff available to deliver health services, with due regard to staff turnover and succession planning.

Respondents to the manager survey that had indicated they are involved in determining the local priorities for allocation of scholarships (n = 25) were asked to rate the process for determining and implementing the local priorities for scholarship allocation.

- 87.5 percent indicated the process is informed by regional workforce needs.
- 88 percent indicated the process is informed by their organisational workforce strategy.
- 76 percent indicated the process is informed by unit-based workforce plans.
- 83 percent indicated the process is transparent.
- 87.5 percent indicated the process is consistent from year to year.

Managers that participated in focus groups were also generally of the view that the priority-setting processes work well. It was apparent in regional Victoria that different regions had developed different processes, but these variations seemed to address the particular region-specific requirements and stakeholders in each region seemed satisfied overall. Moreover, many regional informants acknowledged the willingness of the department to negotiate small variations to scholarship allocation processes, to meet unexpected circumstances. Similarly in metropolitan settings, organisation-specific models had been developed over time and some informants noted there were also process variations within their organisation, once again, to meet the specific needs of particular groups.

On the other hand, with the exception of EDONs, managers were less certain the postgraduate training of their nursing and midwifery workforce was included in workforce planning within their health service (see Table 29).

Table 29: The extent to which postgraduate training is included in workforce planning within health services

To what extent is the postgraduate training of the N&M workforce included in workforce planning within your health service?	EDON	DON	NUM	ANUM
It is part of workforce planning at the organisational level	90%	65%	56%	29%
It is part of workforce planning at the program level	30%	35%	27%	21%
It is part of workforce planning at the unit level	40%	42%	43%	18%
It is not part of workforce planning at any level	10%	23%	8%	7%
I don't know	0%	0%	17%	46%

Middle-level managers and nursing/midwifery staff that participated in focus groups were asked how information about postgraduate study opportunities and scholarships is disseminated within their organisation. As noted earlier in this report in relation to the impact of course costs on decisions to study, a sizeable proportion of individuals indicated they were not aware of the DHHS scholarships prior to completing the survey conducted as part of this review. This would suggest that information does not always filter through all levels of health services.

Amongst NUMs and ANUMs, there were generally very high levels of awareness about DHHS scholarships (as well as any internal financial assistance on offer) and these informants reported they routinely received information from senior managers and/or education managers within their health service, usually via email. A number of informants noted information about scholarships is also available on their organisation's intranet. In turn, these managers were responsible for providing information about study opportunities and scholarships to their staff.

When nurses and midwives were asked about their awareness of postgraduate courses and scholarships, the responses varied between all, some and none of the focus group participants being aware. At least in part, this large variation in the levels of awareness amongst staff reflected deliberate decisions by some health service managers to limit the dissemination of information. That is, a number of middle managers indicated their health service prefers to "tap suitable candidates on the shoulder", rather than rely on individuals self-nominating for postgraduate study. In these situations, NUMs and ANUMs have a significant role to play in identifying suitable candidates from amongst their staff and encouraging those staff to apply for admission to the relevant course and for scholarship support. On the other hand, most NUM/ANUM informants indicated they are not involved in determining which scholarship applicants are successful.

Thus, to a large extent, the level of awareness about scholarships amongst nurses and midwives reflected the deliberate policy decisions of individual health services about the best way to recruit staff into postgraduate education, rather than a failure of communication channels or processes.

One other information-related issue that emerged through focus groups concerned the status of scholarships as taxable forms of income. Some focus group informants noted the value of their scholarship was immediately reduced by one-third, owing to the upfront deduction of tax. However, other focus group participants indicated tax had not been deducted at the time their scholarship was paid, while others noted they had claimed their education expenses as a tax deduction, thereby reducing the tax paid on the scholarship. It was apparent across the focus group sites that staff were being given different information (or no information) to assist them with maximising the financial value of their scholarship. Indeed, when nurse/midwife survey respondents that had indicated their postgraduate study was completely self-funded were asked if they had claimed the costs of their postgraduate education as a tax deduction, only 58 percent reported they definitely had (a further 19 percent could not recall).

All survey participants that had experience of applying for a DHHS scholarship or of assisting someone else to apply for a scholarship (n = 60 for nurses/midwives; n = 64 for managers) were asked whether they had found the process easy or difficult. Amongst all respondents, only 14–15 percent believed the process of applying for DHHS scholarships was *difficult* or *very difficult*. Focus group participants provided similar feedback, although some focus group informants noted that staff sometimes needed assistance with completing the application form, particularly those who had not studied recently.

Survey participants who were aware of DHHS scholarships (n= 136 for nurses/midwives; n = 132 for managers) were also asked if there were any improvements they would suggest for the DHHS postgraduate scholarship program. Around one-third of nurses/midwives and 42 percent of managers suggested improvements; the feedback they provided was very similar to the input of focus group participants and included:

- Provide a larger number of scholarships overall.
- Provide scholarships for non-clinical courses, as well as for clinical courses.
- Increase the value of scholarships, to cover a greater proportion of the costs of typical courses.
- Provide additional funds to rural recipients to cover additional costs of travel.
- Allow health services some flexibility/discretion to split scholarships (perhaps with a guaranteed minimum amount for recipients).
- Simplify the application form and make it more relevant to applicants.
- Provide better information about the scholarships and the application process.
- Make the system more equitable; some individuals received financial support from multiple sources while others received nothing.
- Improve the transparency of the process.
- Address timing issues; staff have to pay course fees before they know if they have received a scholarship.

Finally, managers were asked about their awareness of the DHHS T&D grant and whether they believed there were ways in which the grant could be improved. In both the surveys and the focus groups, it was apparent that more senior managers were generally more aware of the T&D grant than middle managers. For example, amongst survey respondents, 73 percent of EDONs/DONs indicated they are aware of T&D grants, while only 11 percent of NUMs/ANUMs reported awareness. When asked what the funding is used for in their health service, of the manager survey respondents that were aware of the T&D grant (n = 39), one-third indicated they did not know. In response to the question about how the T&D grant could be improved, the feedback included:

- additional funds for rural health services in recognition of the higher cost impact of staff undertaking postgraduate study in those settings
- an increase in the amount of funds provided per FTE, in line with the real increases in costs that are being borne by health services.

3.4 Case studies

3.4.1 Overview

A total of 14 health services indicated their willingness to host a case study, including five major metropolitan health services, two outer metropolitan/large regional health services, five regional and rural health services and two small rural health services. The final decision about where to conduct case studies weighed the following considerations:

- ensuring a mix of metropolitan, regional and rural sites
- the level of postgraduate nursing and midwifery educational activity at the health service
- balancing the location of case study sites with the location of focus group sessions.

The four case study sites selected were: Mercy Public Hospitals Inc, East Grampians Health Service, Western Health and Mildura Base Hospital. The case study conducted at Mercy Public Hospitals Inc was used as a pilot for the case study protocol, allowing minor refinement of the protocol prior to conduct of the remaining case studies.

3.4.2 Mercy Public Hospitals Inc

Background

Mercy Public Hospitals Inc has two hospitals: Werribee Mercy Hospital (WMH) and Mercy Hospital for Women (MHW) in Heidelberg.

WMH is a 200-bed community hospital providing surgical, medical, maternity, newborn, renal dialysis, emergency, mental health, rehabilitation, aged and palliative care services in the south west region of Melbourne. The hospital also provides a range of home-based support services including Hospital in the Home, Midwifery in the Home and a Neonatal Transition Service. The hospital is located within the City of Wyndham, which has experienced the largest and fastest growth in all Victorian local government area and is the third fastest growing in Australia.

MHW provides both public and private patient care through maternity services, neonatology and paediatrics, perioperative services, women's health and associated health and support services and diagnostic services. It is a major teaching hospital and specialist referral centre with the medical, nursing, midwifery and allied health expertise to treat the most complex obstetric, neonatal and gynaecological cases. Neonatal Services at MHW has 55 beds, which comprises up to 22 intensive care cots and 34 special care nursery cots. It is one of the largest nurseries in Australia.

According to informants to this case study, there is a move to integrate functions across both hospitals in line with the Mercy Public Hospitals Inc overarching structure. For example, at the time of the case study, a merger of the education services across both hospitals had just been announced to staff and implementation had commenced. However, for the purposes of this case study, the information collected from each hospital is presented separately. This is to reflect the very different service profiles of the two hospitals and the midwife-dominated workforce at the Mercy Hospital for Women.

Findings from Werribee Mercy Hospital (WMH)

The site visit was conducted on 25 March 2015 and included the following data gathering activities:

- A focus group was conducted with Nurse Unit Managers (NUMs), Assistant Nurse Unit Managers (ANUMs) and education unit staff, attended by 11 staff members.
- A focus group with nurses and midwives was scheduled, but no staff attended.
- Interviews were conducted with the following senior managers:
    - Executive Director of Nursing
    - Director of Human Resources
    - Director of Nursing and Midwifery, Patient Access and Workforce Manager (DONM/PAW)
    - Senior Psychiatric Nurse.
- A request for data (corporate documentation and de-identified demographic data on nursing and midwifery postgraduate activity) was discussed with the DONM/PAW. No data was provided.

Overview

Historically, Mercy Health has supported the postgraduate education of their nursing and midwifery workforce through their own scholarship program, although these scholarships have recently been discontinued. Presently, the major source of postgraduate scholarships is DHHS.

To direct nurses and midwives into postgraduate courses, WMH uses an *employment* model for postgraduate certificate courses in emergency, palliative and perioperative streams. A postgraduate diploma option is also available in the palliative stream. Limited tenure positions are advertised that include a requirement for the successful applicant to undertake the relevant course. For each course, WMH has affiliations with one or more education providers (e.g. the perioperative course is offered in conjunction with the Australian College of Nursing, while the palliative course is available through several universities). The information about these postgraduate study opportunities on the WMH website does not make any mention of scholarship funding towards the cost of undertaking the courses.

This employment model is not utilised in mental health. All mental health nurses (both RN and EN) are encouraged to complete postgraduate education as part of their ongoing employment and this is included in their job statements.

Project Question 1: Factors underpinning uptake of postgraduate nursing and midwifery education

Informants in both the focus groups and interviews reported a culture within WMH that supports nurses and midwives to undertake postgraduate education, although no formal organisational policy exists. The hospital is entering a new phase with the restructuring of its education services across WMH and MHW, but support for nurses and midwives undertaking postgraduate study is still expected to be strong.

There does not appear to be uniform awareness and understanding across all units within WMH of how the DHHS scholarships and Training and Development (T&D) grant programs operate. While all informants reported being aware of the DHHS postgraduate scholarships, there was mixed understanding about how the program operates, specifically:

- The process of disseminating information about the DHHS scholarships is not uniform across the hospital. Informants reported that senior managers receive the notifications, but the information is not always forwarded to other managers.
- There is limited awareness and understanding of how the health service determines the *local priority areas* for the DHHS scholarships. Generally, few informants reported being involved or aware of whether a process exists within the health service for determining the priority areas.
- The timing of the scholarships is thought to be problematic, in that postgraduate course enrolments and payments are required before applicants find out whether they are successful in achieving a scholarship.
- There is confusion about the application process. Some informants are under the impression that individual staff members submit their application directly to DHHS, while others believe the health service submits the application to the department.

There was limited awareness amongst informants of the T&D grants. These grants are handled centrally and none of the NUMs or ANUMs reported receiving a T&D funding-based allocation within their budgets. One informant was aware of these grants because of being involved in preparation of data that is reported to DHHS.

Informants highlighted the financial cost of undertaking postgraduate courses as a major factor that influences individual decisions about whether to proceed with postgraduate study. Notwithstanding this point, there are more staff undertaking postgraduate study than are in receipt of a scholarship. Moreover, for those that receive scholarships, the value is greatly reduced because they are taxed on the total scholarship amount.

Importantly, informants indicated they are unlikely to undertake postgraduate education for the financial benefits, since postgraduate qualifications don't carry any added prestige and very little additional income. On the other hand, informants noted there is great personal growth and other benefits that are realised by obtaining these qualifications.

In terms of general support for postgraduate nursing and midwifery education, there is a team of educators and clinical support nurses, although there is no dedicated postgraduate coordinator for

the hospital. NUMs and ANUMs acknowledged there are "hidden costs" associated with having postgraduate learners on staff, but generally indicated that these costs are outweighed by the overall benefit to their units.

Project Question 2: Benefits of a postgraduate-trained nursing and midwifery workforce for patient outcomes and health services more generally

Senior managers reported that an overall organisational workforce plan is currently under development and this will include reference to the desirability of having a nursing and midwifery workforce that is postgraduate-trained. Mental health has just completed its own unit plan and they have included specific reference to postgraduate-trained nurses.

A range of benefits for the hospital from having nurses and midwives with postgraduate qualifications were identified by informants, including:

- There is an expectation of those staff with postgraduate qualifications that they will become mentors and teachers of others.
- Postgraduate-trained nurses challenge other nurses about best practice. As one informant succinctly stated: "It keeps everyone on their toes".
- There is a higher level of critical thinking applied to clinical practice.
- Postgraduate-trained nurses and midwives are more confident working in multi-disciplinary clinical teams than more junior nurses. Obviously nurses with experience will also be able to operate in these teams.

A number of suggestions were made about potential sources of evidence to support the benefits of having a postgraduate-trained nursing and midwifery workforce, and these included monitoring *RiskMan* reports and tracking whether average length of patient stay decreased in areas with more qualified staff. In the area of mental health, it was suggested there is anecdotal evidence that more adverse events occur when nurses do not have postgraduate qualifications and there are more performance management issues associated with staff without postgraduate qualifications.

In terms of negative or unintended outcomes of having postgraduate-trained staff, the following issues were highlighted:

- The staff perceive the remuneration they receive for the additional responsibility is not worth the cost, particularly as the postgraduate qualification loading only applies to one qualification. Informants noted it takes a long time to recoup the cost of the course at $100 per week.
- There are difficulties where staff with less qualifications are more senior and managing other staff with postgraduate qualifications, or where a better performing staff member is doing more difficult work (and not as well remunerated) as a staff member with higher qualifications.

The idea of having a structured or formal postgraduate program for nurses and midwives after they have acquired a postgraduate qualification was generally well received by all informants. One informant suggested it would assist if such a program carried credit towards further study, which may also help to reduce the cost of undertaking further postgraduate courses.

Findings from Mercy Women's Hospital (MWH)

The site visit was conducted at MWH on 26 March 2015 and consisted of the following data gathering activities:

- A focus group was conducted with NUMs, ANUMs and education unit staff, attended by nine staff members.
- A focus group was scheduled with nurses and midwives, however only one staff member attended.
- Interviews were conducted with the following senior managers:
    - Director of Nursing, Patient Access and Workforce
    - Program Director (Women's & Children's Program
    - Program Director (Surgical & Specialist Services)
    - Nurse Unit Manager (NUM), Neonatal Intensive Care Unit.

Overview:

MWH is in a somewhat unique position as approximately 80-90% of the workforce are midwives. While the majority of midwifery staff completed Bachelor of Midwifery or Bachelor of Nursing and Midwifery courses, some staff have undertaken postgraduate education to gain entry to practice as a midwife. In relation to other postgraduate education, support is offered for courses in the area of neonatal intensive care and perioperative nursing.

As is the case at Werribee Mercy Hospital, MWH uses an *employment* model to attract external applicants to its postgraduate courses. Both one- and two-year programs are offered for neonatal intensive care and a graduate certificate/diploma is available for perioperative nursing. Limited tenure positions are advertised that include a requirement for the successful applicant to undertake the relevant course. For neonatal intensive care, MWH has an affiliation with La Trobe University and Melbourne University, while the perioperative nursing course is available in conjunction with Deakin University. The information about these postgraduate study opportunities on the MWH website does not make any mention of scholarship funding towards the cost of undertaking the courses.

Following the discontinuing of some of the Mercy Health scholarship programs, the DHHS scholarship program is the major source of postgraduate scholarships for MWH staff. Additional scholarships available to staff include the Dianna Morgan Scholarship.

Project Question 1: Factors underpinning uptake of postgraduate nursing and midwifery education

Informants in both the focus groups and interviews reported a general philosophy amongst management that supports nurses and midwives undertaking postgraduate education. However, some informants suggested that practical support is not always forthcoming. Two issues in particular were highlighted:

- In Maternity and Gynaecology, there is limited real support for postgraduate education. While they have access to a 0.6 FTE Educator to support the nurses and midwives in the graduate year programs, this person must also try to overlay some support of ongoing and postgraduate education. Most ongoing education is self-directed and largely unsupported. It was stated: "If the NUM can't provide the education, it doesn't get provided".
- An underlying problem is chronic understaffing, so workforce needs may potentially restrict the postgraduate study options of staff. That is, many staff are needed in their current role, so managers are reluctant to release these staff to go off and do something else.

Informants in the focus group with NUMs and ANUMs were all aware of the DHHS postgraduate scholarships. Generally it was understood the Executive Director of Nursing received the notification from the Department about the scholarships. This information was passed through to NUMs, who in turn are asked to distribute the information to staff, who then apply. It was believed there were more applicants than those who received scholarships each year.

There were a range of experiences with the scholarships and some misunderstanding about what is available and how it is to be used. Informants raised a number of problems or concerns:

- The communication about the scholarships programs is not very good, both from the Department end and within the health service.
- There was a perception amongst some informants that the timelines for the scholarships were a bit tighter this year than in the past.
- The decisions about which staff members receive scholarships are not transparent and are believed to be made by the Learning Unit without any real consultation.
- In relation to the high cost of postgraduate courses, there is a timing issue with the requirement for the learner to be enrolled in a course before they can apply for a scholarship. Students must make an upfront payment for their courses without knowing if they will receive a scholarship.

MWH has both internal and external applicants for scholarships; the internal applicants are permanent employees and the external applicants are not guaranteed ongoing employment after the study is completed.

Informants also highlighted some of the postgraduate training issues that are specific to the Neonatal Intensive Care Unit (NICU), namely:

- The funding of DHHS scholarships for only one year has a significant impact on the uptake of the Neonatal Intensive Care Graduate Diploma course. While it is acknowledged that nurses/midwives should have to pay something towards their own education costs, having no contribution towards the second year means it simply is prohibitive for some staff.
- There may be an issue with time management. The NICU course is difficult, especially having two intensive 13-week blocks, and this becomes problematic for some nurses to complete.
- Staff who are undertaking postgraduate education still need to do night duty rosters and this impacts on their ability to study.
- The NICU model is a paid employment model. Dropout rate is two per year out of ~15 in total, but not usually to do with anything intrinsic to the program, more other life factors.

None of the informants for this case study were aware of the T&D grants process and how it operates within MWH.

Project Question 2: Benefits of a postgraduate-trained nursing and midwifery workforce for patient outcomes and health services more generally

Several informants noted that MWH being a specialty hospital makes it a different setting compared to a regular hospital, particularly as the vast majority of staff are midwives and only a small minority are RNs. Further, most new recruits already have a postgraduate degree. This presents a set of unique problems e.g. midwives are trained in wellness models and so do not have the skills to recognise and treat deteriorating patients.

Workforce planning does take account of the different staff profile and the Director of Nursing, Patient Access and Workforce operates a large bank of approximately 300 nurses and midwives, who wish to work in a casual capacity to reflect work-life balance or study choices.

The positive impact on patient outcomes and general benefits to the health service from having postgraduate-trained nurses and midwives were highlighted in a number of contexts:

- There is a positive benefit on patient outcomes and some data on RiskMan reports. One informant suggested they do occasionally see incidents through RiskMan that highlight the differences between postgraduate-trained staff and non-postgraduate-trained.
- The major difference is in the ability of postgraduate-trained staff to think critically and plan ahead. The educators and clinical support nurses are critical to the development of these skills as well.
- The NUMs recognise the value of the additional skills and knowledge. Many of the postgraduate-trained staff go onto do some kind of project that benefits the organisation.
- There are a number of benefits, but this tends to happen "under the radar". It would benefit from being more formalised.

In terms of negative or unintended outcomes of having postgraduate-trained staff, the following comment was made by one informant:

> *"The younger generation has a different approach to employment, retention, career progression, work-life balance. They don't have the loyalty to the organisation. They don't necessarily wanting to take on a lot more responsibility. They like the idea of taking on consulting roles".*

The idea of having a structured or formal postgraduate program for nurses and midwives after they have acquired a postgraduate qualification, received moderate support. Several informants were under the impression that such a transition program already exists within MWH, while another informant was sceptical about the prospect of "yet another program of transition to workforce" for nurses and midwives.

3.4.3 East Grampians Health Service

Background

East Grampians Health Service (EGHS) is a small rural health service based in the town of Ararat and servicing the LGA of Ararat Rural City. EGHS provides a range of services across a number of sites including acute, midwifery, aged care, community nursing, primary care, oncology day procedure unit, dialysis and an urgent care centre (staffed full-time by nurses with local doctors called upon as required). The main hospital campus at Ararat has a bed capacity that is currently capped at 24 and it has, on average, 10-15 patients per day in the acute area.

EGHS employs 320 staff across an FTE of 261, with nursing and midwifery staff making-up approximately 45% of this (an total of 118 FTE). The nursing and midwifery workforce includes a high proportion of part-time employees.

Findings from EGHS

The site visit was conducted on 28–29 April 2015 and included the following data gathering activities:

- A focus group was conducted with Nurse Unit Managers (NUMs), Assistant Nurse Unit Managers (ANUMs) and education unit staff, attended by eight staff members.
- A focus group was conducted with nurses and midwives attended by eight staff members.
- Interviews were conducted with the following senior managers:
    - Director of Clinical Services
    - Director of Development and Improvement
    - Human Resources Manager
    - Education Manager.
- A brief meeting was held with the CEO.
- Data was provided on the breakdown of training courses undertaken by all EGHS staff in the last two years.

Overview

While EGHS has no formal policy in relation to postgraduate nursing and midwifery education, the organisation has developed a strong learning culture in recent years. Driven by the CEO, there is an emphasis across the whole health service on learning and professional development. This approach is summarised in the 2013-14 EGHS Annual Report: "It is about creating extended opportunities for our local workforce and means our community will be cared for by clinicians who are more highly educated to embrace future clinical challenges".

There is an understanding amongst EGHS management of the need to "grow their own", as it is increasingly difficult to attract staff with the necessary qualifications and experience from other health services. It is also seen as more cost effective to pay for up-skilling of existing staff, or using an employment model (with postgraduate study as part of the contract) to attract younger less experienced staff, rather than pay for expensive recruitment processes that may ultimately fail to attract the desired staff.

This general approach has been translated into practical workforce planning in two major areas of need:

- In midwifery, a decision was made to ensure the birthing capacity of EGHS is maintained, particularly as a proximal service at Stawell was recently forced to close its obstetric service. As a result, a number of staff have been supported to obtain their midwifery qualifications, so they can provide both nursing and midwifery services. The EGHS birthing service does require full-time staffing, so nurses with midwifery qualifications will also do general nursing in periods when there is no birthing services required.
- For the Urgent Care Centre (UCC), nurses with critical care knowledge and skills are being sought to ensure high quality care is delivered. While the UCC does not actually treat high-acuity patients, nurses receive exposure to these patients if they walk in to the service or are brought to the UCC for stabilisation before transfer to a higher level emergency service (usually at Ballarat or Melbourne).

EGHS includes a dedicated education facility housed at the Pyrenees House Education Centre, which delivers a range of training programs for staff and external students. The Centre has a close relationship with Federation University and assists with the delivery of its diploma of nursing course.

EGHS provides financial support for postgraduate nursing and midwifery education through a number of avenues:

- Internally funded bursaries of $10,000. Recipients are bonded to EGHS for a period of two years following completion of their qualification.
- DHHS scholarships of which EGHS normally receives two per year.
- Community funded scholarships – the Albert Coates scholarship ($4,000) and the Angela Laidlaw scholarship ($2,000).
- Medicare Locals have also provided funds for staff to attend the Rural Isolated Practice Registered Nurse (RIPRN) program, which is operated out of the University of Southern Queensland (Cunningham Centre).
- EGHS will consider funding other staff education activities and individual staff members are encouraged to submit an application for career progression to senior management for their consideration.

As part of the case study, EGHS provided information on the educational activities being undertaken by EGHS staff. There are 12 nurses and midwives currently in different stages of completing postgraduate qualifications, including two nurses who are completing a graduate diploma of Midwifery as entry to practice. For nine of the 12 staff members, some form of financial support has been provided through one of the scholarships or bursaries.

While the Graduate Certificate in Advanced Nursing Practice (Rural and Remote) is the main postgraduate course undertaken by EGHS staff (currently three nurses), there is a diverse range of other speciality areas being studied, including one staff member in each of the following courses:

- International Board Certified Lactation Consultant
- Rural Isolated Practice Registered Nurse (RIPRN) program
- Graduate Certificate Nursing Science (Infection Control Nursing)
- Graduate Diploma in Palliative Care
- Graduate Certificate of Agricultural Health and Medicine
- Graduate Certificate in Diabetes Education
- Graduate Diploma of Applied Gerontology.

It is also noteworthy that a number of the students are undertaking courses offered by education providers from other states (e.g. the University of Southern Queensland, Flinders University and the University of Adelaide).

Senior managers suggested the focus of postgraduate nursing and midwifery education is likely to shift in the near future as new areas of need emerge. In particular, the health service is looking to expand its service offering by having a cardiac specialist provide low-level risk cardiac procedures and EGHS may also be providing an expanded range of services to prisoners from a local correctional facility.

Project Question 1: Factors underpinning uptake of postgraduate nursing and midwifery education

Informants in both the focus groups and interviews reported a culture within EGHS that is very supportive of nursing and midwifery postgraduate education. There was also an understanding that postgraduate education is closely aligned with workforce planning, and this is evident by the recent focus upon midwifery and critical care in the postgraduate education that is financially supported.

Awareness of the DHHS scholarships was good amongst the senior managers, NUMs and ANUMs, but poor amongst the nurses and midwives. While senior managers suggested the DHHS scholarships were advertised to staff through the intranet and by email, the staff had only vague recollections of having seen the scholarships advertised. However, they were aware of the internal $10,000 bursaries and the community scholarships that are on offer.

Senior managers, NUMs and ANUMs were aware of the Training and Development (T&D) grants, however no one knew how these funds were apportioned other than it went into the "general

education bucket". There was also limited awareness and understanding of how the process works regionally for the allocation of the DHHS scholarships. While the Director of Clinical Service at EGHS is the Chair of the regional committee that oversights the distribution of DHHS scholarships, other managers' only understanding was that it was handled at a "higher level" and the result was that EGHS receives two scholarships each year. There were no reported difficulties in administering the DHHS scholarships at the local level.

Across all informants, the main reason given for why staff within EGHS pursue postgraduate education is for career progression, that is, the opportunity to move into more senior positions within the organisation. Some of the other motivations identified by informants included *wishing to stay in touch with advances in clinical care*, *providing better patient care* and *interest in particular speciality areas*.

Apart from the cultural and financial support, the other enablers to postgraduate study that were mentioned included access to study leave, sympathetic rostering and the support provided by Ballarat Health Service in providing opportunities for EGHS staff to visit to see higher acuity care that is not provided at EGHS. The general understanding was that nurses and midwives who were interested in postgraduate study were encouraged by their immediate managers and were then made aware of the financial support that is on offer. This also reflected a general organisational approach, which was to inform those staff who demonstrated an interest in postgraduate study.

Informants highlighted a number of barriers to the uptake of postgraduate education:

- For the nurses and midwives, the main barrier is the financial cost of undertaking postgraduate courses. Even if a scholarship is obtained, this does not fully cover course costs and there is also the additional cost associated with travel to attend relevant on-campus components of the postgraduate courses.
- Managers noted a number of structural barriers. The lack of staff to backfill positions while students attend courses was considered the biggest impediment. In addition, the part-time profile of the EGHS workforce means many staff are unable to consider postgraduate study as an option because of the lack of time and financial impact if they are to further reduce their part-time hours to undertake study.
- The difficulty of achieving a work/life balance and undertaking study was identified by all informants.
- The lack of major financial benefits once postgraduate qualifications had been obtained.

Managers at EGHS also noted the difficulty in having staff undertake further study in the area of aged care. While there is currently one staff member undertaking a course in gerontology, this is an area of emerging need where staff with relevant postgraduate qualifications will be required to take on senior and leadership roles in the future.

EGHS staff that had undertaken postgraduate study all reported being well supported throughout their studies. While all noted the difficulties they faced in terms of juggling work, personal and study commitments, they all indicated that obtaining postgraduate qualifications was worthwhile and would recommend further study to their colleagues.

Project Question 2: Benefits of a postgraduate-trained nursing and midwifery workforce for patient outcomes and health services more generally

EGHS informants indicated there are no explicit mechanisms within EGHS for maximising the benefits of having a postgraduate-trained nursing and midwifery workforce. However, the benefits are primarily seen in terms of risk management and workforce planning, specifically:

- EGHS can be confident the staff are sufficiently knowledgeable and skilled to deliver high quality and safe patient care.
- Postgraduate training provides a pipeline for senior positions. Those with qualifications are almost immediately given more responsibility and it is assumed these staff will move into more senior positions over time.

A number of informants in interviews and focus groups suggested that EGHS should attempt to involve their postgraduate-trained staff in more education-related activities. While there is an un-written expectation that staff with postgraduate qualifications will become mentors and teachers of other staff members, this does not currently happen in a coordinated fashion. Again, the structural

limitations of a small workforce mean it is difficult for staff to be given dedicated time to undertake this knowledge sharing and up-skilling of other staff.

In terms of methods to demonstrate the benefits of having a postgraduate-trained workforce, the majority of informants suggested this would best be done through the patient satisfaction surveys. A small number of informants suggested monitoring adverse events and near-misses as potential indicators in this domain.

The idea of having a structured or formal postgraduate program for nurses and midwives after they have acquired a postgraduate qualification (or at the very least, a guide for how to utilise the newly acquired skills and knowledge), received limited support amongst EGHS informants. While the concept was thought to be good, it was considered too difficult to implement within EGHS. Once again, the part-time nature of the workforce and the lack of opportunities for staff to be "away from the floor" to conduct education, in-services and other related tasks were considered to be barriers to implementing such a framework.

3.4.4 Western Health

Background

Western Health (WH) operates three acute public hospitals in the western region of Melbourne, serving a population of nearly 800,000 people in one of Australia's fastest growth corridors. Formed in 2000, the health service brings together Footscray Hospital (~290 beds), Sunshine Hospital (~426 beds) and Williamstown Hospital (90 beds), as well as a day hospital in Sunbury, a transition care facility in Williamstown and a residential care facility in Melton. WH provides a comprehensive, integrated range of hospital and community-based services, including acute tertiary services in medical, surgical, intensive care and emergency medicine, as well as subacute care and specialist ambulatory clinics.

Footscray Hospital is an acute teaching hospital that provides the majority of the acute elective and acute emergency services for WH. Services include acute general medical and surgical, intensive and coronary care, sub-specialty medicine, surgical services and related clinical support. The hospital also conducts research in a range of medical, surgical and specialty areas.

Sunshine Hospital at St Albans is a teaching hospital in the outer west of Melbourne, with an emergency department that is one of the busiest general emergency departments in the state. Services include women's and children's services, surgical, medical, mental health, aged care and rehabilitation services. The hospital's emergency department incorporates a paediatric service, and Sunshine Hospital is the second biggest provider of maternity services in Victoria.

Sunshine Hospital also incorporates the Western Centre for Health Research and Education (WCHRE), which provides a range of purpose-built, state-of-the-art teaching and research facilities. The Centre houses researchers, academics and educators from Western Health, Victoria University and the University of Melbourne, including the Western Clinical School of UoM.

Williamstown Hospital is not a teaching hospital, but it does provide emergency services, surgical services and renal dialysis services, as well as a range of rehabilitation, evaluation and transition care services.

WH has a workforce of ~6,280 employees, including a nursing and midwifery workforce of 2,236 RN employees, 225 RM employees and 227 EN employees. The median age group of the nursing and midwifery workforce is 40-49. Data about the postgraduate qualifications of staff is not held by the organisation.

Findings

The site visit was conducted on 4 May and 6 May 2015. Although all interviews and focus groups were conducted at the Sunshine Hospital campus, staff from both Sunshine and Footscray Hospitals were invited to participate. The following data gathering activities were conducted:

- A focus group was conducted with Nurse Unit Managers (NUMs) and Associate Nurse Unit Managers (ANUMs).
- A focus group was conducted with nursing and midwifery staff.

- Interviews were conducted with the following senior managers:
  - Director of Nursing, Sunshine Hospital
  - Director of Nursing, Footscray Hospital
  - Director, Quality
  - Director, Workforce Planning and Development
  - Acting Director, Education
  - Acting Divisional Director, Women's and Children's Services
  - Coordinator, Women's and Children's Education
  - Operations Manager, Emergency, Medicine and Cancer Services
  - Manager, Sub-Acute and Aged Care Services
  - Simulation and WeLearn Manager
  - Redesigning Care Manager.
- A request for data (corporate documentation and de-identified demographic data on nursing and midwifery postgraduate activity) was discussed with the Acting Director of Education.

Overview

Western Health does not have a formal policy on postgraduate education of its nursing and midwifery workforce, but is guided by ANMF guidelines about the qualifications and experience needed by its workforce to work in particular areas. Moreover, education is a major focus of one of five strategic priorities in the *Western Health Strategic Plan 2011-2015* and WH has developed an *Education Strategy* that aligns workforce, organisational development and the educational needs of the health service. The development of the WCHRE at Sunshine Hospital has provided a focus for educational activities and the health service is a Centre of Excellence for Critical Care, delivering the lecture component for its postgraduate diploma in this specialty. WH is one of only five health services in Australia that is a Registered Training Organisation (RTO).

The health service has a significant Education Unit (59 FTE, including educators, managers, library staff, administrative staff and technical staff) that provides educators to support postgraduate students in specialty areas, as well as undergraduate students, nurses and midwives in the Graduate Nurse/Midwifery Program, Discovery Program and staff CPD. The Education Unit runs a number of short courses in both clinical and non-clinical subject areas, including a range of leadership and mentorship programs.

One major initiative of WH that is designed to promote further education and training for the nursing and midwifery workforce is the *Discovery Program*. This is a professional development program that supports RNs in the transition to working in specialty areas; nurses are allowed to undertake a maximum of two programs. Six-month placements are available in cardiac care, emergency, intensive care, theatre and special care nursery and paediatrics. Program participants receive support from clinical educators as they gain experience working in the specialty area and, through successful completion of the placement, acquire the basic knowledge and skills to allow safe and effective practice in the area. For some of the specialties (namely cardiac care and intensive care), completion of the Discovery Program can count as credit towards postgraduate study.

Western Health works with a number of Victorian universities in the delivery of the Postgraduate Diploma in Advanced Clinical Nursing (Adult Acute Care), with specialties in cardiac care, critical care, emergency and perioperative. The major university partners are The University of Melbourne, Deakin University and La Trobe University. The health service also works with University of Tasmania and Charles Darwin University in the delivery of a renal course. There is a recognised need for locally delivered courses in neonatal intensive care, diabetes and aged care to meet the health needs of the WH catchment area, but these have not been established. There is also a recognised need for a "generalist specialist" postgraduate course for nurses who are not working in specialty areas, but who need to develop general critical thinking skills. However, the health service presently does not have educator support in the wards to be able to support those learners.

Recently, a major driver for the health service in encouraging nursing staff to undertake postgraduate study has been the significant changes to service delivery. There have been increases in the numbers of ICU and CCU beds, as well as an increase in the size and acuity of the ED and an

additional operating theatre. These changes have increased the requirement for staff with specialist skills in those areas. However, interestingly, WH does not have consistent policies across all campuses about the requirement for staff to have postgraduate qualifications to work in specialty areas. For example, the Footscray Hospital ED does not require nursing staff to have postgraduate qualifications to work in an acute care cubicle, while the ED at Sunshine Hospital does have this requirement.

In terms of financial support for staff undertaking postgraduate study, WH has its own postgraduate scholarships available to nurses and midwives. The WH scholarships are valued at $3,000 for graduate certificate, $5,000 for graduate diploma and $6,000 for masters level courses. The health service also offers the Mavis Mitchell Memorial Scholarship, although this is not for postgraduate study. Information about WH and DHHS scholarships is displayed prominently on the WH website and two months before applications are due, scholarships are advertised to all staff through newsletters and emails. Applicants are recommended for scholarship based on the workforce requirements of the health service and, if any scholarships are leftover after all applicants have been allocated either a DHHS or WH scholarship, students enrolled in more expensive courses may receive both scholarships.

Project Question 1: Factors underpinning uptake of postgraduate nursing and midwifery education

Informants in both the focus groups and interviews identified *course cost issues*, *perceptions of potential benefits* and *time requirement* as key factors impacting on the uptake of postgraduate study amongst the WH nursing and midwifery workforce.

Course cost issues

Many informants were of the view there are relatively few education providers offering quality courses. This has created something of a monopoly, resulting in high course fees. Some informants indicated the courses they had completed didn't represent "value for money" and were not up-to-date or consistent with current clinical practice within WH. For example, one informant spoke about paying a university $9,000 for a course that included nine lectures over the year "with most of the course delivered by WH educators". Others noted the difficulty they had accessing lecturers, lecture notes and other course materials, or commented on the generally poor quality of online course content, which WH educators were then required to interpret to make the material intelligible to the students.

Interestingly, none of the informants indicated that course costs were an absolute barrier to undertaking postgraduate study. This might reflect the fact that, according to one key informant, most applicants receive a scholarship, unless they are judged to not be a suitable candidate or have missed the application deadline. Indeed, there was a very high level of awareness amongst WH case study participants of the financial assistance available for postgraduate study, with all staff and managers that participated in either interviews or focus groups aware of both the WH and DHHS scholarship options. On the other hand, one senior manager noted there are few nurses continuing through to higher levels of qualification beyond Graduate Certificate or Graduate Diploma, which this manager thought could reflect cost issues.

Perceptions of benefits

Compounding the cost issues, a large number of informants noted the financial benefits of completing postgraduate study are fairly small. The postgraduate qualification loading was described as "not much of a carrot", with significant salary increases only occurring if the individual moves into a CNS position or a managerial position. However, a number of informants noted that movement into higher paid positions does not necessarily require a postgraduate qualification. For some nurses, the ability to progress in their career without investing in an expensive postgraduate course is a significant disincentive to further study.

Potential financial rewards were only one of the benefits identified by focus group and interview participants. Most informants noted that postgraduate study paves the way for more responsible and interesting nursing roles, including working with higher acuity and more complex cases, as well as opportunities to manage other staff (NUM and ANUM positions). Some staff informants noted that obtaining an ongoing position at the health service is really only possible for a nurse prepared to follow the GNP – Discovery Program – postgraduate study pathway.

While most informants saw this as a significant benefit, a number of informants expressed reservations. For example, informants noted that some staff who completed postgraduate study and obtained CNS or ANUM/NUM positions did not have increased responsibility and accountability, that is, they effectively continued in their previous role. On the other hand, others felt they were moved too quickly into CNS or ANUM/NUM roles, when they probably needed more time for consolidation of their new knowledge and skills. Several staff that had completed postgraduate study commented they felt like "a switch was flicked" the day they received their course results and they were suddenly given more responsibility and expected to step up to a higher level of clinical practice, even though they didn't feel ready. A number of the senior managers expressed similar concerns, noting that staff probably "hit their peak" about 12 months post-qualification, needing about a year to consolidate knowledge and skills and improve their confidence.

The benefits of undertaking postgraduate study was a topic that elicited a broad range of views, particularly from senior managers. Several informants noted that postgraduate study should be about career development and professionalism, more than other considerations. However, while it was agreed WH does a good job of disseminating information about further study to nursing and midwifery staff, much of the information is "just shot out there" without any commentary about the context and purpose of postgraduate study. Several managers suggested the health service should examine how it is shaping and managing the expectations of its nursing and midwifery workforce about career pathways and professional development, potentially looking to overseas examples (such as the United Kingdom) where this is done well. One informant noted "there is still a perception that three years of [undergraduate] study is all you need, whereas as a profession, they should be thinking that further study is part of the equation". Other managers identified a need to provide lateral pathways to maintain the breadth of career options for the workforce.

Time requirement of study

The third major issue impacting on uptake of postgraduate study at WH was the time commitment required for study, combined with the pressures of work. Most managers that expressed a view about this indicated this issue was driving a shift in those enrolling in postgraduate courses towards younger nurses who had only recently completed their GNP, as these individuals – for the most part – don't yet have significant family commitments. One manager noted, "The younger generation are in a hurry and have an eye on the desired endpoint. If they think they can achieve the endpoint more quickly through undertaking study, they will enrol in a postgraduate course even if they would get more from the course by waiting for a year or two to consolidate their existing knowledge and skills." Other managers agreed there is a shift towards younger nurses undertaking postgraduate study, but indicated this reflected the reality that the older workforce generally doesn't see the benefit of study.

Other issues raised by informants that impact on the uptake of postgraduate study opportunities included:

- Staff may be "out of practice" when it comes to study, having not undertaken formal written work or completed an application form for many years. These staff may find the prospect of formal education quite daunting and may need assistance to complete the scholarship or course application form, or may require some form of "transition to study" program to help them establish/re-establish good study habits.
- The number of staff available to support learners provides an implicit cap on the number of postgraduate students that can be accommodated in a given area at any particular time. Moreover, the reduced employment fraction of staff enrolled in a course impacts on rostering and managers must factor this into decisions about how many postgraduate positions they can offer at any time.
- The health service offers a large number of in-house courses and, according to one informant, "every other day there is yet another in-service", so it is possible there is presently some "up-skilling fatigue" amongst staff.
- Many nurses working in general medical or surgical wards would like to undertake postgraduate study, but there are no Discovery Programs or education support staff in the general wards. There are also few generalist-specialist course options.

Notwithstanding their different views on the key factors impacting on decisions to undertake postgraduate study, all informants agreed WH provides a very encouraging and supportive environment in which to undertake further study. Staff and managers alike noted the health service

has an excellent Education Unit staffed by well-qualified educators and many informants pointed to the range of in-house short courses available at WH as evidence of the commitment of the health service to the professional development of its staff. In terms of support, informants in some specialty areas highlighted access to additional study days and exam leave (above the EBA entitlement), as well as supernumerary days and flexible rosters, while in other areas it was observed that less support was available owing to there being a "lean staff profile". Importantly, informants in the focus groups and interviews seemed to agree that WH values the postgraduate qualifications of its nursing and midwifery workforce.

Project Question 2: Benefits of a postgraduate-trained nursing and midwifery workforce for patient outcomes and health services more generally

There was general agreement amongst the managers at all levels in WH about the value and importance of having a postgraduate-trained nursing and midwifery workforce. Nurses with postgraduate qualifications were seen as having greater critical thinking capability, better able to cope with the "constant complexity" of their patients and better able to work with the most acutely ill patients. Several managers indicated that having appropriately trained staff is a risk management/risk mitigation strategy for the health service and a couple of senior managers cited cases where education-based strategies had improved outcomes. For example, according to one informant, five years ago WH had very few postgraduate-trained staff in its renal care unit. Considerable effort was put into up-skilling the staff and this resulted in both expansion of the unit and improved patient outcomes.

On the other hand, a small number of informants asserted there are not always readily identifiable differences between those staff who have postgraduate qualifications and those who do not. According to one informant, the underlying problem is that there is a cost implication for allocating the time and other resources needed for postgraduate-trained nurses and midwives to consolidate and properly utilise their skills. Unless funding is available for supernumerary days for staff to practice their skills or engage in quality improvement activities or research, the opportunities for staff to leverage their postgraduate study into demonstrable benefits for the health service can be quite limited.

In all the interviews and focus groups conducted at WH, it was readily apparent the health service has implemented effective training pathways for those areas where having postgraduate qualified nurses is seen as very important. However, none of the managers could identify structured mechanisms through which the health service ensures the benefits of having a postgraduate-trained workforce are being realised and none were aware of explicit attempts to monitor the impact of postgraduate-trained staff on health service operations and outcomes.

Some managers identified examples of how postgraduate-trained staff were being utilised, such as:

- quality improvement projects that result in small system changes at a local level
- participation in research projects
- education and/or mentoring of junior nurses
- preparation for leadership roles.

In citing these examples, managers acknowledged the use of these mechanisms is *ad hoc* and very much dependent on individual staff and their managers. One informant suggested that annual performance appraisal should take into account whether a staff member is fully utilising their knowledge and skills in their everyday practice, including activity levels, level and type of responsibility, education of others, mentorship, contribution to quality projects and research, but another informant commented that managers are not given guidance on how to do this.

Importantly, most managers agreed there are no formal pathways within WH for consolidation and further development of knowledge and skills once a staff member completes their postgraduate course. One informant noted that for staff who are willing to engage and who are self-starters, there are a number of pathways they can tap into; however, most staff don't have the confidence or the mindset to promote themselves and are very unsure what to do once they complete formal study.

On this last point, a number of WH informants noted the *culture* of the nursing profession is itself a barrier to health services and individuals realising the benefits of postgraduate training. As one informant put it, "The structure of the nursing workforce is based around a 'clock-on/clock-off'

mentality. Added to that, the environment is very task focussed and when nurses undertake their GNP, it's very task focussed. So this sets up an expectation amongst junior nurses that their role is one of completing a certain number of tasks each shift."

Notwithstanding potential cultural barriers, most senior managers and NUM/ANUM informants at WH thought a non-mandatory framework that provides guidance on realising benefits from postgraduate-trained staff would be very useful. A large number of managers also supported the idea that staff working in general medical or surgical wards should have the opportunity to undertake generalist-specialist postgraduate training, to allow them to develop the critical thinking capability and advanced skills and knowledge relevant to their area of practice.

3.4.5 Mildura Base Hospital

Background

Mildura Base Hospital (MBH) is a 146-bed (level 1) teaching hospital located in northwest Victoria. Built by Ramsay Health Care under a contractual arrangement with the Victorian Government, MBH is a privately operated hospital that provides public hospital services to a population of approximately 80,000 in Mildura and the surrounding Sunraysia District. The hospital is a major public referral centre for the Northern Mallee region of Victoria, the far west region of New South Wales and the Riverland area of South Australia. MBH delivers medical, surgical, maternity, paediatrics, intensive care, emergency, mental health, medical imaging, pathology and dialysis services, as well as a range of ambulatory services.

According to data provided by MBH (dated March 2014), the hospital's nursing workforce includes a total of 339 RN/RM employees and 56 EN employees, of whom only about 20 percent are full-time staff. The median age group is 40-44. The 339 RN/RM staff hold a total of 132 postgraduate qualifications, including 49 midwifery qualifications; the most common non-midwifery postgraduate qualifications are in critical care (32), emergency (13) and perioperative (10) nursing.

Findings

The site visit was conducted on 13-14 May 2015 and included the following data gathering activities:

- A focus group was conducted with Nurse Unit Managers (NUMs), Associate Nurse Unit Managers (ANUMs) and education unit staff.
- A focus group was conducted with nurses and midwives.
- Interviews were conducted with the following senior managers:
    - Director of Nursing (DON)
    - Quality Manager
    - Associate Director of Nursing (ADON) – Community Services
    - ADON – Perioperative Services
    - ADON – Clinical Services
    - Principal Nurse Educator.
- A request for data (corporate documentation and de-identified demographic data on nursing and midwifery postgraduate activity) was discussed with the DON and the Principal Nurse Educator. The DON was able to provide de-identified demographic data for the MBH nursing and midwifery workforce from March 2014, but no other data was available.

Overview

Although MBH does not have a formal policy on postgraduate education of its nursing and midwifery workforce, education is included in the organisation's *Statement of Priorities* and MBH does encourage staff to engage with further study, both in clinical and non-clinical (i.e. management) subject areas. The DON has established a Nursing Leadership Management Team (NLMT) and an ANUM Team to promote leadership and the development of management skills, but nurses are encouraged to become clinical leaders before becoming operational managers.

The hospital has a small, but proactive Education Unit (3.0 FTE in general education, plus up to 2.2 FTE additional temporary education staff), that provides support to undergraduate students, nurses in the Graduate Nurse Program, postgraduate students and staff CPD. The Unit is well supported by

about 30 Clinical Nurse Specialists (CNS) that deliver education to staff in their own areas. Most of the CNSs are "home grown" and most have – or are working towards – postgraduate qualifications.

MBH works with several universities in relation to postgraduate education of its nursing and midwifery workforce. The *critical care* and *perioperative* courses are delivered by Deakin University, while a new, locally delivered *acute care* course was established through La Trobe University in 2015. Although not the focus of this review, MBH also works with La Trobe University for delivery of the Graduate Diploma in Midwifery and with Monash University for postgraduate education in *mental health*. Consideration is currently being given to locally-delivered postgraduate courses in *rehabilitation* and *palliative care*.

A major limiting factor for the hospital in encouraging staff to undertake postgraduate study is the availability of staff to backfill positions. As a regional hospital many hours from other major population centres, MBH already has some difficulty in maintaining its baseline workforce. Therefore, considerable planning must go into managing the numbers of staff undertaking postgraduate study at any given time. At the time of this case study, MBH had 15 staff enrolled in postgraduate courses, including two in *perioperative*, two in *critical care* and six in *acute care*, as well as two in *mental health* and three in the midwifery graduate diploma. An unknown number of staff are enrolled in courses that do not require access to clinical educators. This compares to the previous year, when there were only five staff enrolled in postgraduate study, including two in *critical care* and three in midwifery.

While most postgraduate nursing or midwifery study opportunities at MBH are only available to current staff of the hospital, temporary contract positions are available for some courses. For example, the *critical care* course is only open to current staff, while the *midwifery* course is externally advertised. In the case of the *perioperative* course, individuals already employed in the unit remain on their contract, whereas those who come into the unit to complete the course are employed on a temporary contract. For all courses run at MBH, staff must be employed in the relevant area for a minimum of 24 hours per week, which means that casual ('nurse bank') staff are not eligible to enrol in these programs (as these minimum hours can not be guaranteed).

In terms of financial support for nurses undertaking postgraduate study, MBH has a trust fund (the Barry Trust) that provides a small amount of funding for students who are not able to secure any form of scholarship support. The hospital also provides funding to assist with travel and accommodation for study blocks conducted in Melbourne, and pays for the video link that supports local delivery of the *critical care* and *acute care* courses.

Project Question 1: Factors underpinning uptake of postgraduate nursing and midwifery education

Informants in both the focus groups and interviews identified *financial and course cost issues*, *lack of course options* and *personal issues* as key factors impacting on the uptake of postgraduate study amongst the MBH nursing and midwifery workforce.

In terms of financial and course cost issues, informants highlighted a convergence of many separate hurdles, any one of which might be enough to discourage staff from undertaking postgraduate study. Since most staff confront a number of these hurdles at the same time, this proves to be a major barrier to postgraduate study. The hurdles include the cost of courses (which staff described as "high"), a reduction in income during the period of study through working fewer hours, and the cost of travel and accommodation to attend study days in Melbourne (or other centres). In this context, the DHHS scholarship is seen as "helpful", but insufficient to address the true cost imposition of study. Indeed, during the focus group with staff, a number of individuals noted that if the scholarship covered the full cost of the study and travel, they would almost certainly undertake a postgraduate course.

Adding to this, some staff are members of households whose incomes are impacted by unreliable returns from farming activities. Other informants noted that the increase in income once postgraduate study is completed is so small that it takes many years to pay off the cost of the course and other expenses. Indeed, one informant in the NUM/ANUM focus group commented that major increases in income don't happen until an individual moves into a management position.

Lack of course options is also a particular issue for staff at MBH. As one staff member put it, "having to go away for a course is not a viable option" and the number of courses offered locally is very small. However, a major issue impacting on the ability to deliver courses locally is whether

there will be sufficient exposure to relevant clinical scenarios. Nevertheless, this is one issue that MBH has been trying to address in recent years, establishing a locally-delivered acute care course in 2015 and utilising videoconferencing technology to enable local delivery of both the acute care and critical care courses. There are also increasing numbers of education providers offering online delivery of the non-clinical component of their postgraduate courses, but a number of informants expressed concern about the variable quality of some online offerings and several staff noted they don't have internet access at home to be able to access the study materials.

Another major factor that impacts on the ability to locally deliver courses in Mildura is the level of demand for particular courses. In some areas of the hospital (e.g. ED and ICU), 60-70% of staff already have postgraduate qualifications and the staff who have not undertaken postgraduate study are the more junior nurses who are either too inexperienced or have not yet worked in the unit for the minimum required time. With these staff cohorts approaching saturation for the relevant postgraduate qualifications, there is not always sufficient demand to run the critical care course every year.

The third key factor impacting on uptake of postgraduate study at MBH is *personal issues*, which includes family responsibilities and circumstances, as well as individual interests and career ambitions. There was no consensus amongst managers as to whether these issues have resulted in changes to the demographic of nurses undertaking postgraduate study. Some informants said they had observed a shift in those enrolling in postgraduate courses towards younger nurses who had only recently completed their GNP, while other informants had not observed any change. Those managers who had seen a shift towards earlier completion of postgraduate study expressed concern that some staff are not really ready – either academically or from an experience perspective – to undertake further study and would probably benefit from further consolidation.

While there is little the hospital can do to alleviate the impact of personal circumstances on decisions regarding postgraduate study, some units within MBH have been working to establish career pathways that can assist nurses to develop their interests and formulate some career objectives. For example, Perioperative Services has established its own GNP to create a pathway for nurses interested in working in this area. Such pathways serve to showcase career opportunities and give newly graduated nurses an appreciation of the career trajectory they can embark on through postgraduate study.

Overall, informants in both focus groups and interviews described MBH as an organisation positively disposed towards – and generally supportive of – postgraduate education for nurses and midwives. A number of informants highlighted recent efforts to improve the uptake of postgraduate study amongst nursing staff and commented that the organisation had become much more proactive in this area. For example, MBH conducts information sessions for each course that is run locally; staff are encouraged to attend these sessions and discuss their participation in the course with their manager. Not all requests to enrol in a course are granted. Requests may be declined if the applicant is not deemed to be a suitable candidate, or if the applicant is a casual member of staff, or if there is no vacancy in the relevant work area. Additionally, Ramsay Health Care does place some restrictions on the numbers of staff undertaking postgraduate study each year.

Interestingly, while managers were generally aware of scholarships and highlighted the information sessions as evidence of an organisation well informed about postgraduate study options, nursing and midwifery staff themselves were less aware of scholarships, courses and career options. While this might simply reflect the particular group of staff that participated in the focus group, a number of these informants indicated they did not have a good understanding of what postgraduate study involves, weren't sure what courses are available and had not been informed about career pathways following from postgraduate study. One individual commented that completing a postgraduate degree would not change their career trajectory and several staff noted they did not need to undertake postgraduate study as there are many "little courses" run by the hospital that they could complete, which would help them to develop their skills and knowledge.

On this last point, NUM/ANUM informants also commented about the in-house short courses at MBH. However, the managers were generally of the view that in-house courses do not act as a disincentive to further study, but rather serve a very positive purpose in the organisation, providing both a stepping-stone to further study and a complementary approach to up-skilling staff. On the other hand, managers did point to the ability of staff to achieve promotion without postgraduate qualifications as a major disincentive for some staff to undertake further study.

Project Question 2: Benefits of a postgraduate-trained nursing and midwifery workforce for patient outcomes and health services more generally

Managers at all levels in MBH indicated an absolute requirement for postgraduate-trained staff in the hospital, to ensure the hospital can provide appropriate clinical care for patients presenting with ever-increasing levels of acuity. The majority view (although not a unanimous view) among managers was that postgraduate study assists staff to develop skills in questioning, thinking critically and developing a broader understanding and context for their clinical activities. While experience is seen as an important and valuable educative tool, it is limited to whatever the practitioner is exposed to and does not necessarily teach the practitioner how to evaluate situations and seek evidence to inform practice.

Managers identified a range of benefits for the hospital from having nurses and midwives with postgraduate qualifications, including:

- Staff with postgraduate qualifications become mentors, preceptors and teachers of others, as well as providing professional role models for junior staff.
- Postgraduate-trained nurses challenge other nurses about best practice. Moreover, having students present "on the floor" helps to encourage a learning culture more broadly amongst staff.
- Postgraduate-trained staff apply a higher level of critical thinking to their practice and have the ability to progress their patients along the care continuum.

Notwithstanding the consensus view that postgraduate-trained staff are both valuable to and valued by the organisation, most managers expressed the view that MBH has an *ad hoc* approach to realising the benefits of their postgraduate-trained workforce. Indeed, while it was agreed that postgraduate-trained staff are actively recruited and retained and additional responsibilities, pathways and opportunities are provided, there was also a view that staff sometimes get moved into management roles or CNS roles when they are not really ready for these positions.

Moreover, there was general agreement the organisation doesn't attempt to monitor the impact of postgraduate training. One informant noted that qualifications are always factored into performance appraisals, but no managers could point to any data that are routinely collected to address the nature and quantum of any benefits being realised.

Finally, most senior managers and NUM/ANUM informants thought a non-mandatory framework that provides guidance on realising benefits from postgraduate-trained staff would be very useful. It would also be helpful if the framework included suggestions about indicators that could be monitored.

3.5 Summary

Over the course of this project, through consultations that included online surveys, 22 focus groups, four cases studies, 18 key informant interviews and written submissions, an estimated 1,200 stakeholders provided input to this review of postgraduate nursing and midwifery education in Victoria. Importantly, there was a high level of agreement between the feedback received through the various consultation activities, which allows this review to draw a number of conclusions relevant to the two project questions being addressed. While these findings do not describe every person's experience of the system, they are nevertheless broadly relevant to the nursing and midwifery professions.

The review found the major barriers to the uptake of postgraduate education by nurses and midwives fall into three categories: individual issues, financial issues and structural issues.

- *Individual issues* primarily relate to the difficulty of juggling family, financial, work and study commitments.
- *Financial issues* include the combination of the cost of courses, reduced income during the period of study and the costs associated with travel and accommodation. This last issue is principally an issue for rurally based nurses and midwives.
- *Structural issues* mainly relate to the circumstances within health services that reduce their ability to promote or support postgraduate study for their staff. These include lack of staff available to provide backfill for nurses that are studying (particularly in rural areas), limited local resources (human and material) for education, and lack of organisational (particularly senior management) support for education. Another structural issue that is important in rural areas is the lack of locally offered postgraduate course options.

On the other side of the ledger, major enablers of postgraduate education were found to be:

- supportive health service cultures that embrace the value of education and training
- 'discovery programs' that showcase specialty practice and professional career opportunities
- study options that are practitioner-friendly, including online and locally offered courses
- scholarships and other financial support.

One important finding of the review was that the barriers exist everywhere (with the exception of those barriers that are rural-specific), whereas implementation of the enabling strategies has been variable. Some health services have been very proactive in their approach to postgraduate education of their nursing and midwifery workforce and have been innovative in the strategies they have developed. In these health services, while the barriers still exist, the *impact* of those barriers on the uptake of postgraduate education has been effectively reduced. On the other hand, a significant proportion of informants indicated they received no support at all from their health service while they were undertaking their studies and an even larger proportion indicated they had not received access to their EBA study leave allowance.

Another important finding is that active discouragement of nurses and midwives in relation to postgraduate education is still occurring. It is not possible to quantify the extent of the problem, but reports of negative behaviour towards staff undertaking – or who have recently completed – postgraduate study were not isolated incidents.

Regarding the DHHS scholarships, stakeholders across the system indicated these are highly valued, although most informants indicated the scholarship amount should be increased, to cover a higher proportion of the course fees. The levels of awareness of the scholarships were variable, although in many instances this reflected deliberate policies of health services to restrict the dissemination of information to those nursing/midwifery staff for whom postgraduate study would be most appropriate. Nevertheless, there were numerous comments from stakeholders about the difficulties of finding information on the department's website.

Other issues that emerged in relation to the scholarships included:

- There are timing issues for staff, in that they have to pay for their first semester of study before they find out if they have received a scholarship.
- There is a perceived lack of transparency about how scholarships are awarded.
- There are equity issues, with numerous reports of individuals being able to access multiple sources of financial support while others receive nothing.

- Rurally based students have additional travel and accommodation costs associated with their postgraduate study, but the scholarship does not include any rural loading to take account of this.

The most important finding of the review relevant to the DHHS scholarships is that financial issues are a major determining factor for a significant proportion of nurses and midwives, as to whether or not they undertake postgraduate study.

In relation to the second project question, the review found that stakeholders in all categories perceive benefits arising from nurses and midwives undertaking postgraduate study. There are benefits for the individual practitioner, for patients and for the health services.

For individuals, the benefits identified included:

- improved job satisfaction
- increased levels of knowledge and understanding
- improved skill levels, including improved critical thinking and improved skill as an educator of others
- greater confidence in their clinical practice and in participating in multidisciplinary teams.

In terms of benefits for patients, the consensus view was that it is self-evident that practitioners who have enhanced knowledge and skills will deliver better patient care. The attributes of postgraduate-trained staff that enable those staff to deliver better care included:

- improved critical thinking skills
- enhanced ability to anticipate outcomes or recognise issues that could impact on outcomes
- awareness of evidence-based practice and research
- a more integrated and holistic understanding of pathophysiology
- enhanced ability to manage patients with complex care needs
- enhanced capacity to guide the work of others, thereby improving the overall care provided to patients, not just the care provided by themselves.

The benefits for health services of having a postgraduate-trained workforce that were identified by the review included:

- improved patient health outcomes
- improved recruitment, retention and succession planning of staff
- a more efficient and productive workforce
- higher levels of staff satisfaction and staff morale
- a better organisational culture
- a more innovative organisation
- the ability to offer a broader range of services to patients.

Importantly, this review was unable to identify any examples of health services actively monitoring or measuring the perceived benefits to patients or health services. Moreover, the review found that most health services have an *ad hoc* approach to realising the benefits of having a postgraduate-trained nursing and midwifery workforce.

Finally, analysis of DHHS data on T&D grant funding and scholarship allocation reveals these data to be of limited use in understanding the landscape for postgraduate nursing and midwifery education in Victoria.

In relation to the general nursing scholarships, the overall numbers allocated have increased, even taking into account a slight hiatus in 2012-13, with similar trends observed in both metropolitan and regional areas. Amongst the five regional areas, only Loddon Mallee has experienced a decline since the peak demand of 2011-12, although the drop was not particularly large. Regardless, scholarship allocations are not a good indicator of actual demand because their numbers are capped and there are eligibility restrictions.

In relation to the T&D grant data, there has certainly been a decline in activity overall since the peak recorded in 2011, but most of the decline has been recorded in metropolitan, not regional,

health services. Moreover, most health services have fluctuated – sometimes quite dramatically – in their T&D funding over the last five years. Without exploring these variations with individual health services, it would be difficult to determine whether the factors are local or systemic. Indeed, it is highly possible these fluctuations reflect local "saturation" of postgraduate education, which inevitably passes as new generations of staff move through the organisation.

Importantly, the trends observed in the graphed T&D grant data do not align with the input of stakeholders collected through surveys, interviews, focus groups and case studies. On face value, from the T&D grant data it would appear the major barriers to undertaking study exist in metropolitan health services. However, based on stakeholder input, there are more barriers in regional areas than in metropolitan health services, and the barriers are more acutely having an impact in regional areas, while the options to enable postgraduate study are more limited for rural health services.

4 Discussion and Recommendations

Over the course of four months, this review collected data from a range of stakeholders with an interest in the postgraduate education of nurses and midwives in Victoria. This included nurses and midwives, their immediate managers, senior health service managers, educators, education providers, peak professional groups and an industrial body. A literature review was conducted, relevant information was collected from other jurisdictions and data was analysed. In addition, a logic model was developed that identified the processes needed within health services to realise the full range of benefits of having a postgraduate-trained nursing and midwifery workforce.

Through these activities, a picture has formed of the major issues that are impacting on the uptake of postgraduate study opportunities by Victoria's nursing and midwifery workforce. Overall, it is a reasonably good picture. Significant numbers of staff undertake postgraduate study each year and the overwhelming majority believe the effort was worthwhile and would recommend postgraduate study to their colleagues. On the other hand, many of the processes set out in the logic model were not found to be routinely implemented across Victorian public health services.

In many regards, the issues identified by this review are not particularly surprising and could even be described as predictable. Importantly, any attempts to address these issues can now be based on a significant evidence base, rather than supposition or guesswork. Some of the issues may be beyond the remit of the department to address, while others might lend themselves to solutions either implemented or facilitated by the department. This section will deal with each issue identified by the review, suggesting and discussing possible solutions.

As a starting point, it is useful to provide some context for the issues and problems that require attention. Figure 12 presents a model showing that nurses/midwives fall into five main groupings when it comes to postgraduate education. The first two groups include those individuals that are either not interested in further study and never will be, or those that are interested in further study, but are not academically capable of successfully completing a postgraduate level course. These two groups are shown with a cross (X) because they are unlikely to undertake postgraduate study regardless of any strategies aimed at increasing the uptake of postgraduate study and therefore will not be the target of those strategies.

The grouping shown on the far right side of the model includes those individuals that are interested in further study, are academically capable of studying at postgraduate level and are not impacted to any great extent by the identified barriers. This group is shown with a tick (✓) because they are likely to undertake postgraduate study irrespective of any strategies aimed at increasing the uptake of postgraduate study amongst nurses and midwives.

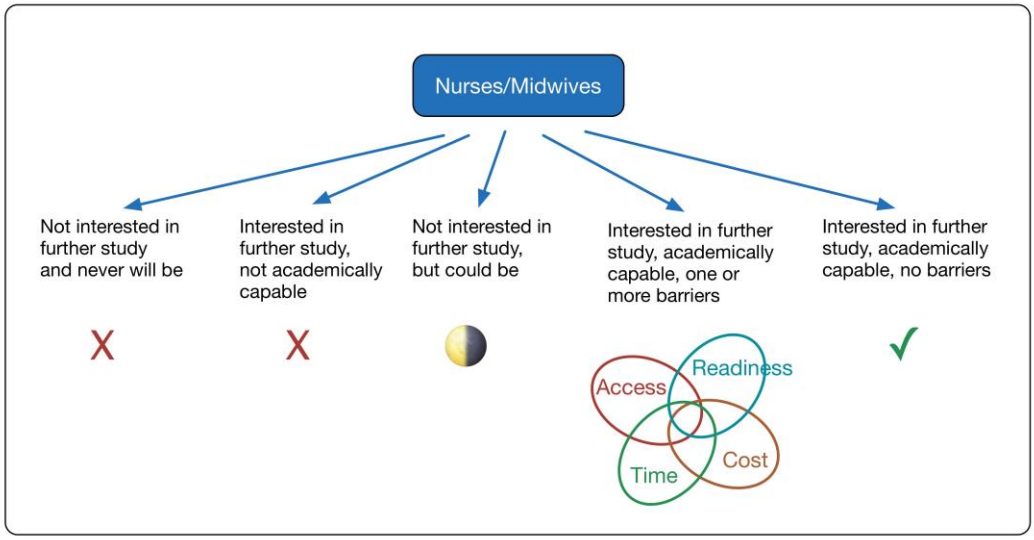

Figure 12: Groupings of nurses/midwives with respect to uptake of postgraduate education

The remaining two groups are the likely targets of any strategies to increase the uptake of postgraduate study amongst nurses and midwives. These groups include the individuals that are

not currently interested in further study, but could be interested if they find themselves in the right environment, as well as those individuals that are interested in study, academically capable, but are significantly impacted by one or more barriers.

There are some barriers that are beyond the control of governments or organisations. These include personal readiness to undertake study (in terms of the stage of an individual's personal and professional development) and whether the individual has family or personal commitments that preclude a commitment to further study. These barriers are not included in the following discussion.

For the issues discussed below, the proposed solutions fall broadly into two categories: those that could be considered *system-level* solutions and those that could be considered *health service-level* solutions.

Issues requiring system-level solutions

Issue #1: Postgraduate courses are very costly and most do not have CSP options

Findings from literature review/desktop research	▪ The high cost of courses has been identified as a significant barrier for nurses wishing to undertake postgraduate study. ▪ A number of other Australian jurisdictions have addressed this by covering a larger proportion of course fees/costs.
Input from key informants	▪ Education providers (EPs) recognise course fees are an issue for potential students, but are constrained by their institutional policies and expectations regarding the financial viability of courses. ▪ The availability of Commonwealth Supported Places (CSPs) is variable, but is impacted by both Commonwealth Government and institutional policies. ▪ The cost of postgraduate study is a significant factor, particularly as undertaking postgraduate study often coincides with reduced income.
Findings from surveys, focus groups and case studies	▪ The cost of courses is amongst the first issues raised when staff are asked about the factors influencing their decisions to study. ▪ Not being able to afford study from a financial perspective is the reason nominated by more individuals than any other reason for a decision not to undertake study.

Possible strategies/solutions	Positives	Negatives
Cost containment – Work with EPs to address cost issues	▪ postgraduate study would be more affordable for everyone	▪ EPs are unlikely to support reducing course fees
Cost containment – Find alternative providers of PG education	▪ postgraduate study would be more affordable for everyone	▪ potential loss of university-level courses ▪ may lose academic rigour and quality
Increase financial support for students	▪ postgraduate study would be more affordable for those who receive financial support	▪ potential cost overrun ▪ fewer individuals may receive support ▪ course fees might increase

As noted earlier in this report, postgraduate education of nurses and midwives is a supply and demand model. However, the model is imperfect because the "commodity" at the heart of the system – advanced knowledge and skills to allow improved patient care – is essentially a public good that carries with it little financial value for the individual that obtains it. Moreover, while obtaining postgraduate qualifications opens up many opportunities for nurses and midwives, it is also possible for this workforce to gain career advancement without these qualifications. With this combination of circumstances, high course fees provide a potent disincentive for individuals to undertake postgraduate study. Although this disincentive doesn't apply to all nurses and midwives – indeed, more than 60 percent of survey respondents completely self-funded their postgraduate study – the health system would not benefit from a situation where the ability to afford study is the primary determinant of who undertakes postgraduate education.

One option is for financial assistance to cover a higher proportion of course fees. Indeed, there are already many examples of scholarships with higher monetary value than the DHHS general nursing

scholarships. The major problem with adopting this solution is that it could result in fewer individuals obtaining financial assistance, since it is unlikely the department would be able to sustain a large overrun in the cost of its scholarship program. Moreover, it is very likely that a significant increase in the value of the scholarship will simply result in a corresponding increase in the cost of courses, in much the same way that schemes like the *first home buyers grant* helped to drive increases in house prices.

Therefore, to address this issue, it is probably more appropriate to address the cost side of the equation. This is likely to be challenging for education providers, who are required to ensure the courses they run deliver a minimum return to their institution. Nevertheless, it is imperative to explore options for reducing the costs and overheads for delivering courses, so that fees can be kept as low as possible and the best candidates can enrol in postgraduate courses. Some health services have already implemented arrangements with education providers whereby hospital educators deliver part of the theory component of the course. This significantly reduces the cost of the course to the students, although there is an element of cost shifting to health services that should also be avoided.

If existing education providers are unable to reduce their course fees, it may be necessary for a more radical rethink about the provision of postgraduate education for nurses and midwives. Postgraduate education for registered nurses is effectively the equivalent of vocational training for registered medical practitioners. Medical vocational training is under the auspices of the specialist colleges and – interestingly – is significantly less expensive for doctors than postgraduate courses are for nurses and midwives. For example, a doctor can undertake training to become an emergency physician at a cost of less than $1,000 per year for a five-year program. While there are clearly differences between vocational training for doctors and postgraduate training for nurses, the reality is that both training pathways are about developing advanced skills and knowledge in the workforce to ensure the best possible care is delivered to patients. Therefore, it might be appropriate to consider whether a change to an arrangement more analogous to the specialist medical colleges – i.e. whereby postgraduate training of nurses and midwives is conducted under the auspices of their respective professional colleges – could help to drive a reduction in the costs of postgraduate study for these health professionals.

Recommended approach	This issue is very important, but while DHHS is a key stakeholder, the department does not have jurisdiction to develop and implement appropriate solutions. However, DHHS could play a significant role in facilitating a dialogue between education providers and health services to discuss possible approaches to containing course costs and reducing fees.
Level of priority	Very high

Recommendation 1:

It is recommended that the department facilitate a dialogue between health services, education providers and professional bodies to address the issue of postgraduate course fees and other access issues.

Issue #2: Rurally based students have additional travel and accommodation costs as part of undertaking postgraduate study

Findings from literature review/desktop research	▪ Some jurisdictions offer travel bursaries for students in rural health services.
Input from key informants	▪ Most of the courses considered to be higher quality include face-to-face study blocks that require students to travel to major metropolitan or regional centres. ▪ Some large regional health services are working with the sub-regional and small rural health services in their regions to reduce the amount of travel students have to do as part of the postgraduate course.

Findings from surveys, focus groups and case studies	▪ Rurally based students noted that travel and accommodation costs can add significantly to the costs of undertaking study, depending on the requirements of the course. ▪ Some rural health services are able to provide assistance with travel, either by providing vehicles or by covering some or all of the travel costs.

Possible strategies/solutions	Positives	Negatives
Provide additional support to rurally based postgraduate students to assist with these added costs	▪ would make the system more equitable	▪ would increase the cost of the scholarship scheme ▪ fewer individuals may receive support ▪ might create administrative issues ▪ might be difficult to implement equitably

This is an area of obvious inequity that is easily addressed. Nurses and midwives in rural areas are already significantly disadvantaged when it comes to postgraduate study options and assisting them to meet the additional costs of travel and accommodation they face so they can undertake high quality courses is a rational and defensible course of action.

There are several options for how rural students could be assisted with travel costs:

(i) The overall value of the DHHS scholarship awarded to rurally based students could be increased by a specified amount. This could notionally be to cover travel costs, although if the department doesn't wish to monitor this, the additional amount could be used for other purposes.

(ii) Separate travel bursaries could be available for individuals to apply for. The major disadvantages of this approach are that it represents an additional scheme that needs to be administered, and also this would require individuals to prepare a separate application for this funding.

(iii) Health services could receive funds to cover the travel costs of their staff undertaking postgraduate study. It could be left to each organisation to allocate the funds to staff and to decide whether funds are paid against expense claims from staff or through some other arrangement.

Recommended approach	The first step is to investigate the actual expenditure of rurally based students in relation to travel and accommodation as part of their postgraduate study. This might involve collecting data on actual out-of-pocket expenses over the course of a year, as well as data from rural health services about the ways in which they subsidise or cover the study-related travel costs of staff. Once the true costs are understood, it will be possible to determine the likely cost of a rural student travel subsidy and to identify the most appropriate option for implementing such a scheme.
Level of priority	Moderate

Recommendation 2:

It is recommended that the department investigate the level of need – and the most appropriate option for implementation – for travel-related assistance to rurally based postgraduate nursing and midwifery students.

Issue #3: The DHHS scholarship amount is not very substantial compared to the cost of courses

Findings from literature review/desktop research	▪ Government funded assistance to nurses and midwives to assist them with the costs of postgraduate education has a significant impact on the uptake of postgraduate study. In NZ, full funding of course fees has resulted in the proportion of registered nurses with postgraduate qualifications increasing from 12.7 percent in 2001 to 20.7 percent in 2010. ▪ Different jurisdictions have different approaches to assisting with course fees, including full fee coverage, sliding scales for the various qualification levels, sliding scales for the various course costs, and covering a fixed number of units.

Input from key informants	▪ Some health services have their own scholarships that cover full fees. ▪ Some health services have trusts or endowments that are used to top up DHHS scholarships.
Findings from surveys, focus groups and case studies	▪ Nurses/midwives accept they should contribute to the costs of their own postgraduate education, but note the DHHS scholarship covers only about 25 percent of the cost of most courses (or less). ▪ As noted above for Issue #1, the cost of courses is a major factor influencing decisions to study and not being able to afford study from a financial perspective is the main reason for deciding not to undertake study.

Possible strategies/solutions	Positives	Negatives
Increase the scholarship amount	▪ PG study would be more affordable for those who receive a scholarship	▪ potential cost overrun ▪ fewer individuals may receive support ▪ course fees might increase
Implement a tiered funding model, whereby the amount of individual scholarships increases as the level of the qualification increases	▪ may enable more scholarships to be offered ▪ would address current anomalies whereby individuals undertaking higher level courses pay a significantly larger proportion of the costs than those enrolled in Grad Cert courses	▪ students completing lower level qualifications may receive a significantly lower scholarship amount than under present arrangements ▪ may produce perverse or unintended outcomes (e.g. staff enrol in Masters to receive higher scholarship payment and then opt-out at a lower level qualification)

The possibility of increasing the amount of financial assistance provided through the DHHS scholarships was discussed briefly in relation to Issue #1. In that discussion, it was noted this might result in fewer individuals receiving any funds at all, particularly if the department's budget for the scholarship program were not to increase accordingly. The second issue raised was in relation to potentially fuelling an upward spiral in course fees, which could result in even fewer individuals undertaking study, as more of the self-funded postgraduate students become unable to afford the cost.

On the other hand, there are clearly examples both interstate and overseas where the full costs of postgraduate study are covered by government funding. There does not appear to be evidence of this resulting in dramatic increases in course fees, perhaps because governments have considerable negotiating power when they effectively purchase education for their workforce through a block funding arrangement.

There are also numerous interstate examples where the scholarship amount is greater than the DHHS scholarship. This would suggest there is some room to move in terms of increasing the value of the department's scholarships before there is a real risk of creating either perverse incentives or unintended consequences for stakeholders.

While small increases in the value of the department's scholarships may be possible, significant increases in the level of financial support provided by the department will be contingent on there being sufficient budget allocated to the scholarship program to support such increases. To achieve a significant increase in the allocated budget, Nursing and Midwifery Workforce would need to argue its case through the relevant budget review processes. Realistically, for the case to be successful, it would need to demonstrate the direct benefits for patient care and health services that come from postgraduate training of nurses and midwives. As this review has found, there is currently no systematic monitoring of the impact of educational levels of nursing staff on patient outcomes. Indeed, there is virtually no reliable data on the qualifications of the nursing and midwifery workforce. This is discussed later in relation to Issue #11.

Therefore, in respect of the specific issue of increasing the relative contribution of the DHHS scholarship to the cost of postgraduate study, the most likely short-term solution will be to find alternative ways of using the existing pool of funding, perhaps through a tiered funding model.

Recommended approach	Initially, the department should undertake some modelling of the various tiered funding options, to identify the costs of implementing such a model. The department should also consult with their counterparts in jurisdictions utilising tiered models, to develop a better understanding of how such models are implemented.
Level of priority	Moderate to high

Issue #4: Health services have no flexibility in how they allocate total scholarship dollars

Findings from literature review/desktop research	▪ Some jurisdictions have flexible arrangements for the amount of funding allocated to individuals. ▪ A number of jurisdictions have fixed scholarship amounts, but utilise a tiered scale whereby students undertaking higher-level qualifications receive higher levels of funding.
Input from key informants	▪ The Australian Nursing and Midwifery Federation (ANMF) indicated greater flexibility in the scholarship funding arrangements would be welcome.
Findings from surveys, focus groups and case studies	▪ The response from focus group participants about having flexibility in the amounts for individual scholarships was mixed. The major concern was the practicalities of determining the different amounts to be awarded to individuals and associated concerns about potential lack of transparency. If health services are allowed some flexibility/discretion to split scholarships, it was generally agreed there should be a guaranteed minimum amount for recipients. ▪ The concept of a tiered approach to the scholarship amounts was generally viewed favourably.

Possible strategies/solutions	Positives	Negatives
Health services to be provided with a total amount for scholarships which could then be divided at their discretion (within some defined parameters)	▪ health services could decide to spread their scholarship funds amongst a greater number of nurses and midwives than is possible with the current fixed amount per scholarship ▪ could result in greater financial assistance for those studying more expensive and higher level courses ▪ might increase the perceived value of the scholarships	▪ may add to admin burden for health services of disbursing funds to recipients ▪ may create difficulties for health services in having to define the criteria by which they apportion individual scholarships ▪ could increase perceptions of inequity in the system ▪ would be of little benefit to small health services who only receive 1-2 scholarships each year ▪ may produce perverse outcomes e.g. staff move health services to be at a health service that offers more generous postgraduate scholarships
Implement a tiered funding model, whereby the amount of individual scholarships increases as the level of the qualification increases	▪ may enable more scholarships to be offered ▪ would address current anomalies whereby individuals undertaking higher level courses pay a significantly larger proportion of the costs than those enrolled in Grad Cert courses	▪ nurses and midwives completing lower level qualifications may receive a significantly lower scholarship amount than under present arrangements ▪ may produce perverse or unintended outcomes (e.g. staff enrol in Masters to receive higher scholarship payment and then opt-out at a lower level qualification)

The prospect of allowing individual health services to determine how they utilise their total allocation of scholarship funds has some superficial appeal. However, there are a number of unintended negative outcomes that could eventuate if this were implemented, which would diminish any of the potential benefits that could be realised. In particular, it is unlikely that larger health services would welcome the increased administrative burden that such a system would entail.

On the other hand, a tiered funding model would appear to have more merit and could warrant further investigation. Depending on how the sliding scale is structured, this model could achieve the

objective of allowing more individuals to be awarded scholarships, which is one of the main anticipated benefits of having a flexible approach to scholarship allocations. This would particularly be the case in health services or regions where the majority of students are undertaking graduate certificate courses.

The tiered model is not without its own issues. One issue is that some education providers require students to enrol at the Masters level with the ability to exit after completing graduate certificate or graduate diploma requirements. It would be necessary to schedule scholarship payments so as to avoid students having to repay funds if they exit at Grad Cert or Grad Dip level. Such scheduling of payments would also be necessary to avoid situations where individuals enrol in a higher-level course to obtain the higher value scholarship and then exit the course at a lower award.

Recommended approach	As discussed above in Issue #3, the department should undertake some modelling of the various tiered funding options, to identify the costs of implementing such a model. The department should also consult with their counterparts in other jurisdictions utilising tiered models, to develop a better understanding of how such models are implemented.
Level of priority	Moderate

Recommendation 3:

It is recommended that the department undertake further analysis of the tiered scholarship model to explore its application within the Victorian environment.

Issue #5: The timing of the notification of DHHS scholarship outcomes relative to payment of first semester is problematic for some nurses and midwives.

Findings from literature review/desktop research	▪ The majority of postgraduate scholarships schemes in other jurisdictions adopt a similar approach to the payment of their scholarships i.e. students have to be enrolled and have paid course fees before they receive their scholarship. Indeed, in some instances, scholarships are not actually paid until the course is completed and satisfactory academic results can be demonstrated. ▪ The philosophy that nurses and midwives are being reimbursed for a range of possible costs associated with postgraduate study is a stated feature of many of the other scholarship programs.
Input from key informants	▪ Some informants suggested the timeline for the scholarships needs to be reviewed because of the "lateness" of the decisions around individual scholarship recipients. ▪ Several informants noted that nurses and midwives need to have "skin in the game" if they are to value their postgraduate education. There must be an understanding that a financial cost is involved with postgraduate study. ▪ One informant noted that to make any realistic impact upon the timelines for decision-making around the DHHS scholarships, this would entail commencing the process in the previous financial year (i.e. for scholarships in 2016, the process would have needed to commence in April-May of 2015).
Findings from surveys, focus groups and case studies	▪ Nurses and midwives would like the timing of the scholarships to be brought forward so this can be factored into their decision-making about whether to pursue postgraduate study. ▪ Given the high cost of postgraduate courses, it is a source of frustration and concern amongst scholarship recipients that funds do not become available before they have to pay the first semester course fees.

Possible strategies/solutions	Positives	Negatives
Amend the timelines to enable DHHS scholarship applicants to be informed earlier about the outcome of their application	▪ will allow nurses/midwives to factor whether they have been awarded a DHHS scholarship into their decision-making ▪ will reduce the amount of the course fees scholarship recipients have to pay up-front (if this is chosen as the way to use scholarship funds) ▪ may reduce the number of people who withdraw late from courses	▪ moving the timelines is not feasible from a logistical perspective. ▪ the administrative process may become less efficient ▪ this option assumes that scholarship recipients only want funds to go towards course fees and no other costs associated with PG study
Improve communication to better explain the rationale for the timelines of the DHHS scholarships program	▪ may help to alleviate concerns about meeting costs ▪ would help nurses and midwives to understand the underlying rationale of the scholarships program	▪ will not affect the financial impact of having to pay course fees 'up front' ▪ no evidence that improved communications from DHHS will reach the target audience

At its foundation, this issue relates to the high cost of postgraduate courses. If course fees were not so high, it is unlikely the timing of the scholarships would present such a concern or be a source of frustration for stakeholders. That being said, the reality is that for nurses and midwives who are severely financially constrained, the receipt of a DHHS scholarship may well be the difference between undertaking postgraduate study, deferring or not undertaking study at all. For this group, finding out as early as possible whether they have been successful in accessing a DHHS scholarship is vital to their decision-making.

For nurses and midwives who do not have financial constraints, receipt of a DHHS scholarship is welcome but is not the ultimate determinant of whether postgraduate study is undertaken. Therefore, the issue of the timing around scholarship notification is unlikely to be of much significance for this group.

While it would be desirable to assist nurses and midwives who are financially constrained with their decision-making, it does not appear possible within the current set-up of the program. That is, adjustments to the annual timeline of the scholarship program are not feasible given all the steps that are involved and the potential for adding inefficiencies to the administration of the program. To some extent it would also involve amending the underlying philosophy or rationale of the scholarship program, which is to reimburse and assist nurses and midwives with the costs they have incurred for their postgraduate study, not to enable study to be undertaken in the first place.

However, it may assist the general understanding of these issues amongst stakeholders if DHHS were to produce some better-targeted information that explains the reasons for the scholarship timelines and the underlying rationale of the program.

Ultimately this is not a make-or-break issue for the DHHS scholarship program. Nurses and midwives still welcome any financial assistance towards the cost of their postgraduate education, whenever this is actually delivered to them.

Recommended approach	DHHS should provide further information that explains the overall rationale or philosophy of its scholarship programs and the specific reasons for the timeline of decision-making within the program.
Level of priority	Low to moderate

Issue #6: Some nurses and midwives are not aware of DHHS scholarship options

Input from key informants	▪ A number of key informants indicated it was difficult to access detailed information about the DHHS scholarships, particularly through the DHHS website.	
Findings from surveys, focus groups and case studies	▪ Amongst survey respondents, 73 percent indicated they were not aware of the scholarships offered by DHHS prior to undertaking the survey. ▪ Generally, the lower staff were in the organisational hierarchy, the less likely they were to be informed about the DHHS scholarships.	
Possible strategies/solutions	Positives	Negatives
Improve relevant pages on DHHS website	▪ improves awareness about DHHS scholarships	▪ may be difficult to achieve in DHHS website structure
Establish a social media presence for DHHS scholarships	▪ avoids reliance on health service information channels to disseminate information ▪ increases the likelihood of reaching new generations of nurses and midwives	▪ social media forums must be regularly updated to be useful ▪ cost could be prohibitive
Encourage EPs to provide information about DHHS scholarships on their websites	▪ prospective students can find information or links to funding support when they are considering courses of study ▪ providing a simple link to the relevant portal/page on DHHS website will mean information does not need to be continually updated on the EP website	▪ the EPs must maintain the currency of the information for it to be useful
Establish a central repository of information about all scholarships	▪ improves awareness of the range of funding support options ▪ simplifies the task of finding relevant information for nurses and midwives considering postgraduate study	▪ significant time and resource requirement to maintain information currency

To date, information about the DHHS scholarships program has been made available through two main sources:

- The DHHS website; and
- Provision of the program guidelines and related materials through the network of EDONs and DONs in all Victorian health services. These individuals are expected to use distribution channels within their own health services to disseminate the information to all relevant staff (a 'trickle-down' approach to communication).

This review has determined these approaches are not working very effectively.

Some health services have either deliberately or by default adopted a strategy whereby information about postgraduate study and the DHHS scholarships are only directed to nurses and midwives who demonstrate an interest and/or aptitude for postgraduate study. In other health services, the imperfections of the 'trickle-down' approach mean that information is poorly disseminated through internal networks.

The unintended outcome is that some staff that are contemplating study or have committed to self-fund their postgraduate study are unaware of potential sources of financial assistance. Of course, no matter how widely and appropriately information is broadcast, some people will not pay attention to information that is not directly relevant to them.

While DHHS can only do so much to make information available, it is clear that improvements in the way the department communicates information are required. An immediate fix is to ensure the information about postgraduate scholarships on the DHHS website is more accessible. It is understood the department's website is in the process of being re-developed. Nursing and Midwifery Workforce should ensure that redesigned pages include links that will enable stakeholders to find the information about scholarships and related issues in a more direct fashion than at present.

Once the revised DHHS website is operational, it should be another relatively straightforward exercise to encourage education providers to provide links to the new website on their web pages that contain information about postgraduate nursing and midwifery courses.

Of the other potential strategies, the development of a social media presence may not be essential, but is almost inevitable as younger generations of nurses and midwives come into the workforce and consider postgraduate study options.

The development of a central repository of information about all scholarships on offer for postgraduate nursing and midwifery study is a much bigger and longer-term undertaking that would require significant resourcing to establish and maintain over time. It is anticipated that some form of cost benefit analysis would be required to justify the level of expenditure that would be involved.

Recommended approach	DHHS can implement some relatively quick fixes to its communication strategy for information about postgraduate scholarships. Consideration should also be given to longer-term strategies that may also improve the overall reach of relevant information to the target audiences.
Level of priority	Moderate

Issue #7: The deduction of tax when DHHS scholarships are paid to recipients is a concern because of the immediate reduction in the funds available to recipients to pay for costs associated with their postgraduate study.

Findings from literature review/desktop research	▪ Other jurisdictions provide some advice in relation to the tax implications of their scholarships.	
Input from key informants	▪ Many scholarship recipients do not receive the full amount of the scholarship because tax is deducted upfront, which reduces the perceived value of the scholarship.	
Findings from surveys, focus groups and case studies	▪ Most Victorian health services pay the scholarship and apply the marginal tax rate of the individual, resulting in a reduction of the amount immediately available towards the cost of their postgraduate study. ▪ Staff have received different information (or no information) to assist them with maximising the financial value of their scholarship. ▪ A proportion of nurses and midwives are not aware that self-education is a legitimate expense that can be claimed in annual tax returns.	
Possible strategies/solutions	Positives	Negatives
Amend DHHS information about scholarship program to include statements about the tax implications of a scholarship payment and deductions for self-education expenses that may be possible	▪ may enable greater awareness of the tax issues associated with the scholarships and self-education expenses ▪ scholarship recipients may be able to access more of the value of the scholarship upfront ▪ self-funded postgraduate students may obtain tax deductions they are entitled to for self-education expenses	▪ nurses and midwives may source professional tax advice and still achieve no greater financial benefit ▪ there is a risk DHHS could be providing incorrect tax advice

The Australian Tax Office's website states that scholarships received for part-time students are assessable income. Payers of scholarships should be instructed to withhold tax (PAYG) from the scholarship payments and recipients need to show the scholarship amount as assessable income in their tax return. However, there are individual circumstances that may permit other arrangements for the payment of tax associated with scholarships or bursaries.

DHHS currently provides information to health services about scholarship taxation issues in the scholarship program guidelines. The findings of this review suggest the majority of individuals and a considerable number of health services are not aware of the taxation issues. Therefore, it might be prudent for the department to make this information more prominent. If possible, the information could also alert nurses and midwives who are undertaking postgraduate study to the existence of tax deductions that may be permitted for self-education expenses.

The laws and regulations around taxation on scholarships are a Commonwealth issue. The department can draw the attention of individuals and health services to taxation issues, but it would be imprudent for the department to provide advice in an area for which it has no expertise or jurisdiction. The consequences of providing incorrect advice would be significant.

Recommended approach	As a first step, DHHS should include more information in its scholarship program guidelines and FAQs about the tax issue and encourage individuals to obtain independent tax advice about their obligations and potential deductions for self-education expenses.
Level of priority	Low

Recommendation 4:

It is recommended that the department review its communications strategies relevant to the postgraduate nursing and midwifery scholarship programs. Specifically:

- ***Improve the content and ease of access to information on the website.***
- ***Publish information as part of a series of Frequently Asked Questions (FAQs) on its website, as well as other relevant publications, that addresses the underlying rationale of the scholarships program and the practical reasons for the annual timeline of decision-making.***
- ***Improve the accessibility of information it provides on taxation arrangements relevant to its scholarships and self-education expenses.***
- ***Consider longer term strategies for improving communication that could include establishing a social media presence and creating a central repository of information about all scholarships available for postgraduate nursing and midwifery study.***

Issue #8: Some students have access to CSPs and multiple scholarships whilst others may receive no support

Findings from literature review/desktop research	▪ In other jurisdictions, some scholarship programs have explicit rules that prevent recipients from accessing multiple scholarships.	
Input from key informants	▪ Victorian education providers acknowledged the possibility that some students may be able to access a CSP as well as receive scholarships from multiple sources. ▪ Previously, some education providers had discussed with the department which students had been allocated a CSP, so they would not also be awarded a scholarship; however, this no longer occurs.	
Findings from surveys, focus groups and case studies	▪ There were several anecdotal reports of nurses who were in receipt of more than one scholarship or bursary. ▪ Suggested improvement to the DHHS scholarships program included removing the ability for individuals to receive financial support from multiple sources.	
Possible strategies/solutions	Positives	Negatives
Tighten eligibility rules for the DHHS scholarships	▪ financial support may be available to more individuals	▪ coordination between funding schemes would be challenging

The input in relation to this issue was entirely anecdotal. It is therefore difficult to estimate the extent to which this practice is occurring.

Regardless of the actual number of students in receipt of multiple funding sources, it could be argued on principle that this practice is inequitable and should not be permitted. An alternative argument is that resourceful students should not be disadvantaged if they are able to access multiple sources of funding for their postgraduate education and there is nothing to prevent others from doing this as well. On balance, it seems reasonable that the argument around equity and making limited resources available to a larger number of individuals should prevail.

The ability to access multiple scholarships or combine a CSP with a DHHS scholarship could be removed by simply adding words to this effect in the DHHS Scholarship Program Guidelines. However, there may not be much point in tightening eligibility rules for the scholarships if there isn't going to be any monitoring or enforcement of the rules, which may not be straightforward. It is also important to note that some health services have schemes through which they top-up the financial support provided to their staff. It will be necessary to ensure any tightening of eligibility for DHHS scholarships does not inadvertently prevent health services from providing small amounts of additional financial assistance to their staff.

It is important that whatever process is put in place will not involve a large administrative burden for the department, health services or education providers. In addition, a mechanism for scholarship re-allocation will be required if an education provider awards a CSP at late notice (which has occurred in the past) to a student who has been awarded a DHHS scholarship.

Recommended approach	A reasonable starting point would be to determine the true extent of this issue, as this will assist with determining the most appropriate way forward. If the number of individuals accessing multiple sources of significant funding assistance is very small, the costs of policing the system may outweigh the value in terms of perceived or actual fairness. On the other hand, if significant numbers of individuals are gaining an unfair financial advantage through the current arrangements, the department should consult with other jurisdictions on the most effective and efficient way to restrict access to multiple sources of financial assistance.
Level of priority	Moderate

Recommendation 5:

It is recommended that the department determine the proportion of postgraduate nursing and midwifery students who are accessing multiple sources of funding.

Issue #9: For rurally based nurses and midwives, local course offerings are limited

Input from key informants	▪ While there are some courses offered in major regional centres, these can still be difficult to access for nurses and midwives in outlying rural locations. ▪ Some education providers are withdrawing from some regional areas because of a lack of demand for courses, and therefore reduced profitability.	
Findings from surveys, focus groups and case studies	▪ There is a lack of locally delivered, high quality courses available for staff in rural regions, mainly reflecting the low levels of demand in those areas. ▪ While rurally based nurses and midwives can access online courses, these can be of varying quality; poor internet access can also be a factor that limits participation. ▪ Metropolitan courses are often the only option in some specialities.	
Possible strategies/solutions	Positives	Negatives
Investigate creative options for expanding local course offerings for rural health services	▪ more rurally based staff could undertake PG study	▪ unlikely to be financially attractive to education providers
Investigate mechanisms to uncouple course offerings from demand	▪ more study options for nurses and midwives	▪ unlikely to be financially attractive to education providers

This issue reflects structural factors that are unlikely to change in the short-term. Sub-regional and rural health services have relatively small workforces and cannot generate levels of demand for

postgraduate courses that can sustain local delivery of those courses. An added issue is that smaller health services often do not have a clinical caseload that can meet the clinical education requirements of some specialty courses. Thus, even where videoconferencing can be utilised for the delivery of lectures, tutorials and other non-clinical learning activities, it may still not be feasible to deliver the clinical education component of a course at a rural health service. This situation is unlikely to change in the foreseeable future, not without dramatic increases in the population of rural centres.

At the same time, it must be acknowledged that the inability to make progress with this issue creates something of a "catch 22" situation for sub-regional and rural health services. Without locally offered postgraduate courses, the ability to up-skill the workforce is limited, which in turn makes it difficult for the health service to retain its workforce and expand its service delivery, which in turn reduces the local demand for postgraduate education.

Therefore, it might be appropriate for a new conversation to be established, one that examines the issue from a more creative perspective. Rather than starting the conversation with the proposition that courses can't be offered locally in rural settings because of the lack of demand, the conversation could begin by asking "how can we uncouple the ability to supply a course in a given location from the issue of local demand?" The conversation could also consider whether there are creative options such as *virtual placements* or *staff exchanges* that could allow rurally based staff to obtain the requisite clinical experience at a range of partner health services.

Not every rural access issue can be resolved through such approaches. But just as technology solutions such as videoconferencing and webinars have allowed students to participate in lectures remotely, by thinking creatively about the problems, it might be possible to utilise new technologies to make postgraduate study more accessible for rurally based nurses and midwives.

Recommended approach	The recommended dialogue between health services and education providers to be facilitated by DHHS (as per Issue #1) could also consider creative solutions to address the structural barriers that limit local delivery of postgraduate courses in rural areas.
Level of priority	Moderate

Issue #10: The focus of postgraduate education is on specialty areas of practice, without a corresponding emphasis on advanced skills for generalist staff

Input from key informants	▪ Education providers are interested in offering courses targeted at general nursing, but historically there has not been sufficient demand for this course to make it viable. ▪ Most informants believe the same advanced critical thinking skills that are valued in specialist areas are needed in general medical and surgical wards as well.	
Findings from surveys, focus groups and case studies	▪ Many nurses working in general medical and surgical wards would like to be able to undertake a "generalist-specialist" postgraduate course, but can't find suitable courses. ▪ Some health services are beginning to seek generalist courses for their staff	
Possible strategies/solutions	Positives	Negatives
Facilitate a conversation across the profession about the development of advanced skills amongst generalist staff	▪ would provide postgraduate education opportunities for nursing staff who are not interested in specialist practice ▪ would improve patient care in general medical/surgical wards	▪ health services do not generally have many education resources targeted to general wards and therefore this might have significant cost implications

According to the majority of participants in this review, a major benefit from undertaking postgraduate study is the development of critical thinking skills and the ability to anticipate clinical outcomes. Informants emphasised that these skills are central to the provision of high quality patient care. The logical extension of this is that critical thinking skills and the ability to anticipate

clinical outcomes would improve patient care in any context, not only in specialist areas like coronary care units, intensive care units or emergency departments.

When this proposition was put to interview and focus group participants, they readily agreed that development of these advanced skills through postgraduate study should probably be emphasised in all areas of the health service, not just in the areas historically recognised as specialist areas.

To a large extent, this is a conversation that must take place within the profession and is beyond the remit of the department to influence. It will only be when leaders in the profession embrace the concept of generalist-specialist nurses and start to implement these roles within their health services that there might be sufficient demand for generalist-specialist postgraduate courses to make them widely available.

Recommended approach	In the first instance, the department might convene a discussion forum to explore the value of the generalist-specialist concept and how this might be implemented. Some discussion of potential cost implications and the impact on existing educational resources within health services should be included on the agenda.
Level of priority	Low

Issue #11: Some health services do not have a culture that supports and encourages postgraduate study by nurses and midwives, or that values staff with postgraduate qualifications

Findings from literature review/desktop research	▪ A number of issues that reflect lack of support for postgraduate study by health services have been reported by nurses, including: difficulty gaining access to study leave; lack of study-friendly rostering; and lack of backfill for nurses who are absent from the health service whilst fulfilling their study commitments.
Input from key informants	▪ The ANMF identified budget considerations as major factors that make some health services reluctant to encourage their staff to undertake postgraduate study.
Findings from surveys, focus groups and case studies	▪ The significant majority of health services have no formal policy in relation to postgraduate education for nurses and midwives. ▪ There are many Victorian health services where there is a culture that supports education. However, active discouragement of nurses and midwives in relation to postgraduate study still occurs in many health services. ▪ Survey respondents reported varying levels of support during postgraduate study; 20% of respondents indicated they received no support from their employer during their postgraduate study; less than three-quarters reported they had access to their EBA study leave entitlement. ▪ Opinions on whether the health service values staff with postgraduate qualifications varied considerably; senior managers were very clear that postgraduate-trained staff are highly valued, whereas middle managers and staff were significantly less sure this was the case. ▪ Most health services have an *ad hoc* approach to realising the benefits of having a postgraduate-trained nursing and midwifery workforce. ▪ No examples were identified of health services actively monitoring or measuring the benefits of a postgraduate-trained workforce to patients or the health service.

Possible strategies/solutions	Positives	Negatives
Publish information about the benefits of having a postgraduate trained workforce	▪ may assist health services to see how investment in staff development can ensure service delivery and efficiency objectives are met	▪ the current lack of quantifiable measures may limit the utility of the information provided.
Develop a non-mandatory framework that provides guidance in relation to supporting and utilising a postgraduate-trained nursing and midwifery workforce	▪ will provide guidance to health services on appropriate ways to support and encourage PG study by nurses and midwives ▪ will provide guidance to health services on appropriate ways to utilise the enhanced skills and knowledge of PG-trained staff	▪ health services may resist "another framework" that requires resources to implement
Identify indicators relevant to measuring: ▪ Support for postgraduate education of nurses and midwives ▪ Benefits of postgraduate training	▪ evidence to support cultural change with respect to the value placed on the postgraduate education of nurses and midwives ▪ quantifiable measures that can provide a means for benchmarking between health services	▪ additional data collection and reporting burden for health services

This is a difficult issue to address for several reasons. Firstly, the view that some health services don't have a particularly supportive culture when it comes to postgraduate education for nurses and midwives was not a view that was shared by all informants. A recurring theme throughout this review was that the senior manager perspective within health services was often very different from the staff perspective. Where senior managers would present a very positive picture of health service attitudes and expectations in relation to postgraduate education, the nurses and midwives – and sometimes the NUMs and ANUMs – would present a very different story. The differences in perspective were not dramatic everywhere, but it was evident at many health services that the value senior managers undoubtedly place on postgraduate-trained staff was not effectively communicated to those very staff.

Secondly, organisational cultures cannot be mandated or imposed from without. Culture is an intrinsic characteristic of an organisation and reflects historical, structural, financial and personnel factors. Left to their own devices, these factors are usually slow to evolve, which is why significant cultural change within organisations usually requires a significant driving force.

One potential driving force for significant cultural change could – and should – be evidence of the value of having a postgraduate-trained nursing and midwifery workforce. Unfortunately, while there is a significant level of *belief* amongst all stakeholder groups that postgraduate education brings benefits to individuals, patients and health services, there is a lack of hard data to objectively demonstrate this is the case. There are two aspects to this data deficit.

The first is the lack of reliable data on the qualifications of the current Victorian nursing and midwifery workforce. Health services collect some information, although many organisations do not record the qualifications obtained by staff prior to their employment at that health service, particularly if those qualifications were not directly relevant to the position they were recruited for. As discovered in the course of this review, the data on qualifications collected through the annual registration process for nurses and midwives is very poor quality and is not even suitable for the most low-level analysis of the proportion of nurses and midwives that have postgraduate qualifications. Without even this most basic of statistics, it is difficult to imagine how a case can be made that postgraduate training of nurses and midwives has made a significant impact on patient health outcomes or the efficient and productive operation of health services.

The second aspect of the data deficit is in relation to monitoring of patient outcomes as a measure of the value of postgraduate education to clinical nursing practice. As this review has found, there is a widely held view that postgraduate training of nurses and midwives is pivotal to high quality patient care. There are very good reasons – including several anecdotal reports of "before-and-after" examples – for experienced health professionals holding the view that postgraduate training

improves patient care. However, there is no data demonstrating a direct causal link between postgraduate nursing education levels and improved patient outcomes.

This is by no means a Victorian issue. It is an issue confronting both the nursing and midwifery professions, in Australia and overseas. Notwithstanding the identification of several nursing sensitive outcomes (NSOs) in recent years, there has been no system-wide data collection that would permit even a fairly basic correlation analysis between selected NSOs and the qualifications of nursing/midwifery staff in Victorian hospitals.

Such data collection would not be without issues and the analysis and interpretation of the data would need to be carefully considered and rigorously undertaken. Nonetheless, until sector-wide NSO data collection is trialled, the value or otherwise of such measures can only be speculated upon. On this point, it is worth noting that existing differences across the Victorian public health system in the proportion of staff with postgraduate qualifications might provide sufficient "control" groups to allow statistically significant correlations with outcomes to be observed, if sector-wide NSO data was collected.

Recommended approach	Addressing the data deficits is probably the most important priority in relation to this issue. Organisations change their behaviours – and their cultures – when they can see the value in doing so and the value proposition with respect to postgraduate training of the nursing and midwifery workforce would be considerably supported by rigorous evidence.
Level of priority	High

Recommendation 6:

It is recommended that the department work with the relevant bodies to enable the development of reliable nursing and midwifery workforce datasets that include up-to-date information about the postgraduate qualifications of these health professionals.

Recommendation 7:

It is recommended that the department encourage projects that examine the usefulness of various nurse sensitive outcome (NSO) measures in monitoring the benefits of a postgraduate-trained nursing and midwifery workforce.

Issues requiring health service-level solutions

Issue #11: Workforce pressures in rural areas limit the number of staff that can undertake postgraduate study at any given time

Findings from literature review/desktop research	▪ A major challenge for health services is being able to release staff from normal duties to undertake educational activities, irrespective of the commitment of health service managers to the development of their staff. ▪ The most frequently reported barriers to attending training courses – even in metropolitan settings – have included staff shortages and workload demands.
Input from key informants	▪ The budget of Health Workforce New Zealand to cover postgraduate training of nursing/midwifery workforce includes funds for health services to cover backfill costs. ▪ Grampians region has recognised the need for innovative models for supporting sub-regional and small rural health services, where the burden of releasing staff to undertake study is proportionally much greater.
Findings from surveys, focus groups and case studies	▪ Participants in rural focus groups for managers identified lack of available staff to provide backfill as a major factor in determining the number of staff encouraged to undertake postgraduate education each year. ▪ Survey respondents from small rural health services were much less likely to have had access to supernumerary time or access to educators and more likely to report that no support was provided.

Possible strategies/solutions	Positives	Negatives
Investigate mechanisms to circumvent structural issues that restrict the ability of rural health services to up-skill staff	▪ more rurally based staff could undertake postgraduate study	▪ likely to have significant cost implications

As with the issue of limited course offerings in rural health services (Issue #9), the structural factors underlying this issue are unlikely to change in the foreseeable future. The workforces of sub-regional and rural health services are small, with a significant proportion employed on a part-time basis. It is simply not possible to staff these health services if large numbers of nurses and midwives are absent from the workplace.

That being said, several informants to this review identified innovative solutions that have been – and are being – developed by regional health services to enable a proportion of their nurses and midwives to undertake postgraduate study. These local solutions may have relevance and be applicable in other regional health services facing the same issues.

Recommended approach	As a first step, the department should conduct a forum with regional, sub-regional and rural health services, to share existing approaches and explore new avenues to address the workforce pressures that limit the availability of postgraduate education to rurally based nurses and midwives. The forum could also consider establishment of more permanent forums for sharing and developing innovative solutions to common problems.
Level of priority	Moderate

Issue #12: Support for staff once they have completed postgraduate study (i.e. consolidation and career development) is ad hoc

Input from key informants	▪ No Australian or NZ jurisdictions have any type of framework to guide health services on managing, supporting and appropriately utilising staff that have completed postgraduate study.	
Findings from surveys, focus groups and case studies	▪ Some health services have explicit expectations of staff that have completed postgraduate study, but the majority have an *ad hoc* approach to managing and supporting those staff. ▪ Managers acknowledge that staff generally require about 12 months to consolidate their skills and knowledge following postgraduate study and to develop confidence in their advanced levels of practice. ▪ Staff that have completed postgraduate education often feel unprepared for the higher levels of responsibility they are given. ▪ Some staff were disappointed to find their duties or level of responsibility post-study did not change compared to pre-study.	
Possible strategies/solutions	Positives	Negatives
Develop non-mandatory guidelines that suggest appropriate ways to assist staff that have completed postgraduate study with consolidation of skills and knowledge, as well as career development	▪ create consistency across the system ▪ ensure maximum benefit is realised from the investment in postgraduate education	▪ may just "sit on the shelf" in some health services ▪ could be seen as burdensome by some stakeholders

The first major task of this project was the development of a logic model that would identify the mechanisms or pathways by which it is expected a postgraduate-prepared nursing and midwifery workforce would deliver better patient outcomes. The rationale underpinning this activity was that if the mechanisms by which an objective will be achieved cannot be identified, then the likelihood of achieving the objective is probably reduced. While it is true that some outcomes happen as a matter of course, it is equally true that many outcomes do not.

In this context, it is important to note that a number of nurses who participated in this review indicated their additional skills and knowledge acquired through postgraduate study had not been utilised at all since they had completed their course. Clearly, if staff with advanced skills and knowledge are not given roles or responsibilities that require them to use their skills and knowledge, then this makes it unlikely any benefit will be derived, either for the individual, the patient or the health service. Equally, staff that indicated they had been "thrown in the deep end" too quickly after completing their course probably represents another missed opportunity for maximising the benefits of postgraduate study.

Importantly, it was not only the feedback from staff that suggests most health services do not have a particularly strategic approach to managing, supporting and utilising postgraduate-trained staff. Managers at all levels also acknowledged they have some good initiatives, but the overall approach is *ad hoc* and informal.

The idea of some kind of non-mandatory guidelines to advise health services in this domain was raised with all review participants. While there were some individuals that were not particularly positive about the concept, a significant number of survey, case study and focus group participants thought that some form of guidance would be invaluable. As one regional health service manager noted, even the list of possible mechanisms included in the relevant survey question had provided a useful checklist for how her organisation might actually ensure it is supporting and utilising its postgraduate-trained workforce. Provided the guidelines are non-mandatory, health services that don't believe they need any assistance can choose not to use the guidelines, while those health services that are looking for ideas to implement can extract whatever is useful or relevant for them.

Recommended approach	Development of the kind of guidelines proposed here is something that health departments must take the lead on, since individual health services lack the resources or the vantage point to be able to create such a resource. Convening an advisory group to oversight the process and conducting workshops/forums to collect input that informs guideline development will help ensure broad sectoral support for the resulting document.
Level of priority	Moderate to high

Recommendation 8:

It is recommended that the department explore mechanisms for providing guidance to health services on a range of issues relevant to developing, supporting and utilising a postgraduate-trained nursing and midwifery workforce.

Conclusions

This project set out to address two key questions: firstly, the factors impacting on the uptake of postgraduate study by Victorian public sector nurses and midwives and secondly, the relationship between patient outcomes and having a nursing and midwifery workforce trained at postgraduate level.

The review was successful in addressing the first question and identified the issues that are impacting on the decisions of nurses and midwives in Victorian public health services about whether to undertake postgraduate study. None of the issues identified were particularly surprising; indeed, literature from the Australian and international context has highlighted similar issues. In any event, the department now has a body of evidence that reveals the relative importance of the full range of issues within the Victorian context, as well as some recommendations about where it might focus its policies and resources to improve the situation.

On this point, a major driver for this review was the observation of a decline in postgraduate education activity, as measured by requests for relevant components of the department's T&D grant funding and applications for scholarships, the latter particularly in regional areas. As it transpired, these data did not really reflect what is being experienced at the coalface and probably do not provide a very reliable indicator of where there might be issues that need to be addressed at a whole-of-system level.

Indeed, a major deficit of the current system is the lack of reliable data on the postgraduate qualifications of Victoria's nursing and midwifery workforce. These data are absolutely essential if the impact of departmental policies and programs are to be meaningfully evaluated.

On the second question, the review successfully identified a range of benefits – including improved patient care, benefits to the individual practitioner and benefits to the health service – that stakeholders generally agree are a consequence of nurses and midwives being trained at a postgraduate level. The review also determined that health services have an *ad hoc* approach to realising the benefits of their postgraduate-trained workforce and are not currently monitoring whether outcomes/benefits are being realised. These findings point to the need for guidance on how health services can ensure they maximise the benefits from investing in the professional development of their workforce, as well as further work to identify valid indicators for measuring outcomes.

This review has identified a number of areas where improvements are needed and it is likely that many of these improvements are possible within the current paradigm of the nursing and midwifery professions. However, it is also clear that some issues actually reflect the current arrangements and these are unlikely to be resolved without a shift in the *status quo*. Specifically, while obtaining postgraduate qualifications is "preferred but optional" for the majority of specialty areas and experience is a legitimate alternative to postgraduate training for career advancement in specialist roles and management positions, a proportion of practitioners will choose not to undertake postgraduate study, particularly if course fees remain high or increase. This is not to say the paradigm is wrong, but it reflects the way the profession views itself and helps to inform the way in which others view the profession. Ultimately, these are conversations for nursing and midwifery practitioners and leaders, as they pursue the development of their respective professions.

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