

Educating the Nurse of the Future

Report of the Independent Review of Nursing Education



Emeritus Professor Steven Schwartz AM

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Title: *Educating the Nurse of the Future—Report of the Independent Review into Nursing Education*

Author: Emeritus Professor Steven Schwartz

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Foreword

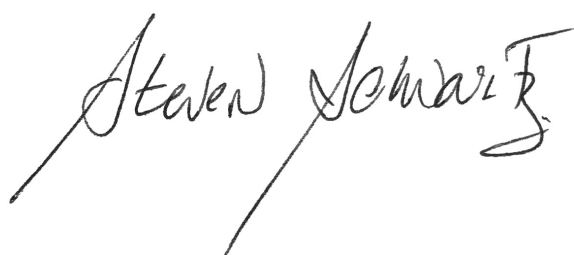
Many changes have occurred in health care, higher education, and demographics since nursing education was last examined in 2002. To ensure that nurses are adequately equipped for the future, the Australian government's Stronger Rural Health Strategy included an independent review of the educational preparation of nurses. The review provided an opportunity to re-visit nursing education in the context of today's very different Australia — a larger, more ethnically diverse, and gradually ageing population. Although it is necessary to understand how we got where we are, the review mainly concentrated on the future.

With advice from the National Nursing and Midwifery Education Advisory Network and the assistance of the Commonwealth Department of Health, the review conducted consultations in regional and metropolitan areas around Australia. I debated and discussed, with a wide range of people and organisations, some of the most controversial questions facing nursing education. What skills and attitudes do we expect graduate nurses to have, and what is the best way to teach them? How do we widen participation in nursing and meet the needs of the regions?

The present report represents the outcome of the various consultations, debates, and discussions; it covers the educational preparation of nurses as well as the factors that influence people to choose nursing as an occupation. The report also looks at how other countries view Australian nursing education. The review found much that is excellent about nursing education, but it also found areas that could be improved. These include increasing the diversity of the nursing workforce, providing easily navigable career paths, fostering inter-professional collaboration, and ensuring that all nurses are adequately prepared for their roles. This report covers each of these topics and several related ones.

Throughout the review process, I was ably assisted by the staff of the Commonwealth Department of Health, notably Deb Thoms, Liza Edwards, Karen Cook, and Mandy Winter. Their dedication, knowledge, and desire to advance the cause of nursing were inspiring.

Finally, on a personal note, I would like to pay tribute to the students who met with me to talk about their hopes and plans for careers in nursing. Their maturity, compassion, and ambitions were profoundly moving. I left those meetings feeling very optimistic. I hope this report will play a role in providing these future leaders with the education they need and deserve.

A handwritten signature in black ink, reading 'Steven Schwartz'. The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

Emeritus Professor Steven Schwartz AM
September 2019



Executive Summary

Health care has been transformed since nursing education was last examined in 2002, and the pace of change continues to accelerate. To ensure that nurses are adequately equipped for new and diverse roles, the Australian government's *Stronger Rural Health Strategy* called for an independent examination of the educational preparation of nurses, and related matters. This report presents the outcomes of that review.

The primary source of information for the review was stakeholder feedback. More than 1,100 educators, clinicians, supervisors, policy-makers, patient group members, students, managers, and union representatives accepted the offer to attend a consultation. In addition, the review received 84 written submissions, commissioned four research papers, and conducted surveys of specially targeted groups. Like all reviews, this one focuses on areas that can be improved, but it would be a mistake to think that Australian nursing education is flawed, second-rate, or struggling. There is much that is excellent about nursing education. Nevertheless, there are processes, practices, and procedures that could work better, and this report represents my independent view of how to go about making the necessary improvements.

Overview

Nursing, the largest of the health professions, plays a crucial role in determining national health outcomes. There are three legally-protected nursing titles in Australia: enrolled nurses (ENs), registered nurses (RNs), and nurse practitioners (NPs). ENs, who must complete a Vocational Education and Training (VET) diploma in nursing, work under the supervision of RNs. Registered nurses practise independently and hold bachelor's level qualifications. NPs are educated at the master's degree level to manage entire episodes of health care. Eighty per cent of nurses are RNs, 20 per cent are ENs, and less than one per cent are NPs.

Nurses can use one academic qualification as a pathway to a higher one, a process known as articulation. Articulation can take place within or between institutions and within or between education sectors. The most common form of articulation for nurses is from EN to RN, but there are also opportunities to articulate from VET certificates to higher qualifications and from bachelor's degrees to graduate diplomas and master's degrees. Articulation in higher education is not regulated; the recognition given to prior learning is determined individually by each higher education provider (HEP).

Australia has established a strong foundation to support high-quality nursing education. The structure rests on four pillars: The National Law, which sets out the social objectives of health care regulation; practice standards that serve as educational goals; accreditation standards designed to ensure that nursing education programs achieve the educational goals; and an overarching National Registration and Accreditation Scheme (NRAS) that ensures nurses are suitably educated and qualified to practise. The regulatory edifice is fundamentally sound, but some areas can be improved.

Risks to the public

Unregulated health workers. Unregulated health workers, known as Assistants in Nursing (AINs), are not nurses; they are

carers. Their titles vary — aged care workers, personal care assistants, disability support workers, care support workers — but their main job is to help people in performing the tasks of daily living. A large proportion of AINs work in aged care. Nurses find it difficult to delegate tasks to AINs because there are no rules governing their qualifications, experience, or skills. Having some of the most vulnerable people in the community looked after by staff whose education and expertise are unregulated presents significant risks to the public.

Poor literacy, numeracy, and communication skills. English language proficiency is one of the core registration imperatives of the National Law; it is also embedded in nursing education accreditation standards. However, in consultations across the country, nurses cited examples of students and graduates they considered unsafe to practise because of their poor grasp of English. In some cases, English was a student's second language, but students whose primary language was English were observed to struggle as well. To protect the public, the accreditation and registration system must ensure that all nurses possess high literacy, numeracy, and communication skills.

Transparency

The Australian Nursing and Midwifery Accreditation Council (ANMAC) accredits and monitors all nursing courses leading to registration and endorsement. As a result, ANMAC has a unique insight into the quality of nursing education. Last year, it uncovered many issues that required modifications to accredited programs. Unfortunately, ANMAC did not publicly report what those issues or alterations were. To gain the full value of the knowledge it gathers about teaching and learning, ANMAC should make its accreditation findings accessible to everyone, not only when something goes wrong but also when it finds instances of good practice. Public reporting would benefit education providers, students, and all other stakeholders interested in raising standards.

What can we expect from a graduate nurse?

Because EN diploma courses are based on a national “training package,” they all have the same learning outcomes. In contrast, every Bachelor of Nursing course is unique, and each HEP defines learning outcomes as it sees fit. Employers have called for a standard list of core skills that every RN graduate should possess. Some nurses oppose this idea. They fear such a list would lock current practices in place, limiting future opportunities to adapt the scope of nursing practice to fit the changing needs of society. A few nurses expressed the belief that person-centred care is incompatible with lists of competencies and procedures. It is not clear, however, how nurses can provide person-centred care without possessing caregiving skills. Most HEPs acknowledge the need for students to acquire specific expertise; they send their students to placements with record books detailing the procedures and techniques they are expected to learn. At present, the content of these books varies across HEPs. A standard list of knowledge and skills would make nursing education more consistent and provide employers with an objective definition of “work readiness.”

Assuring the quality of professional experience placements

As a result of a massive increase in nursing students, finding sufficient numbers of clinical placements has become an area of intense competition among vocational education providers and HEPs. The review heard of students who were unable to complete their courses on time because their educational institution did not provide them with a sufficient number of clinical placement hours. Desperate to find clinical placements, some education providers are reported to be ignoring the requirement that placements be clinically “relevant.” Even when quality

placements are available, the time students spend in them is often too short to provide any real benefits. The review also received reports of inadequate supervision. The current *laissez-faire* approach to clinical placements is untenable. Placements should be subject to formal accreditation and monitoring to ensure that every student acquires what the practice standards demand: “the skills and knowledge necessary for safe and effective practice.”

A particular problem for regional placements is cost. Medical students on regional placements have their travel and accommodation costs covered, whereas nursing students are often expected to pay their own expenses. This anomaly should be corrected.

How many clinical placement hours are sufficient?

The EN diploma requires only 400 clinical placement hours, yet the review received few recommendations for an increase. In contrast, the number of professional placement hours required by the Bachelor of Nursing degree was the subject of extensive discussion. At present, Bachelor of Nursing courses have varying placement requirements. Some mandate the minimum 800 hours, while others demand 840 or even 1,000. Ideally, the number of placement hours required should be based on research, not simply picked out of the air. However, given that Australia’s minimum clinical placement requirements are lower than those of other countries, there is a *prima facie* case for an increase.

Independent pre-registration examinations

Although there are practice standards for nurses, there are no independently administered assessments to ensure that nurses meet them. Many countries use examinations to determine whether nurses are safe to practise. Other Australian health professions — psychology,

physiotherapy, pharmacy — require tests, and so does the vocational registration of doctors. Starting soon, the Nursing and Midwifery Board of Australia (NMBA) intends to use examinations to judge whether internationally educated nurses are fit for registration. It seems anomalous to use tests to assess the suitability of internationally educated nurses, but not to evaluate domestic graduates. Examining all graduates in the same way would be fair and equitable, and their assessment results would provide vital insights into Australian nursing education.

Extending the length of the Bachelor of Nursing degree

Many academics feel that the current three-year Bachelor of Nursing course is too short to provide the education required for safe and effective practice. They believe an extra year is required. One way to increase teaching time is to lengthen the academic calendar, as some HEPs have done. A second way is to add an extra semester or year. Curtin University has taken the latter approach by offering a 3.5-year course. It seems HEPs have the flexibility to lengthen the Bachelor of Nursing course if they wish.

Several submissions recommended increasing the amount of time spent studying by requiring all nursing students to begin their education with an EN diploma and then articulate to a Bachelor of Nursing degree. A benefit of this approach is that students would be able to start receiving an income once they completed their diplomas, and those who decide to discontinue their studies would have the foundation for a career. (At present, students who do not finish their Bachelor of Nursing degrees rarely gain any recognition for their studies.) The EN to RN transfer route is widely used, but there are difficulties with making it a universal requirement. Differences in teaching styles, admission standards, and the level of academic work between vocational education and HEPs make articulation a transitional challenge for many students.

To increase the compatibility between EN and RN qualifications, ANMAC suggested transferring the education of enrolled nurses from the VET sector to higher education, where enrolled nursing would become an associate degree. Because they would both be offered by HEPs, the associate and bachelor's degrees could be coordinated from the start. After completing two years of study, students would receive their associate degree. After two more years, they would receive their bachelor's degrees. Students who wish to seek employment after earning their associate degree could finish their bachelor's study part-time. Although it has many attractions, transferring the Diploma of Nursing to higher education may also have adverse effects. Vocational education providers draw their students from different populations from HEPs; so moving EN education from the VET sector to higher education could limit the diversity of the nursing workforce.

Standards for transition-to-practice programs

Transition-to-practice programs (TTPs) are aimed at helping nurses adjust to professional roles. They offer new nurses the opportunity to hone their skills and acculturate to their new profession. The end product of a TTP is not just a technically skilled nurse but a confident and resilient one. A considerable body of research has shown that TTPs reduce turnover and work stress while improving patient safety and enhancing job satisfaction. Given the benefits of TTPs, they should be available to all new ENs and RNs no matter where they work, and national best practice guidelines should be established.

Diversity, inclusion, and opportunity

Despite changing social attitudes to gender, only 12 per cent of Australia's nurses are male, and men are not the only social group under-represented in nursing. In comparison

to their number in the general population, Asian, African, and other minority groups are also under-represented, and only around one per cent of nurses are Aboriginal or Torres Strait Islanders. A diverse nursing workforce would help reduce the health disparities that exist between the majority of Australians and some minority groups, and it would improve workplace creativity. Seeking nurses from all parts of society also expands the employment pool and reduces Australia's reliance on international recruits. The first step in increasing diversity is to improve the understanding of nursing not just among members of the public but also among policy-makers and other health professionals. It will also be necessary to cultivate male, Indigenous, and minority group role models and improve the academic preparation of minority group members (especially in science).

Articulation from EN to RN courses is a powerful strategy for widening participation. VET providers have less rigorous admission requirements than HEPs, and many are located in the regions. For these reasons, VET courses are accessible to students whose schools were under-resourced, whose education was disrupted for health or family reasons, or who live in locations far from HEPs. Because VET courses are shorter than degrees, students who complete a certificate or diploma can join the workforce sooner than HEP students. Once they are practising, ENs can choose to articulate into a Bachelor of Nursing degree by studying part-time. An articulation pathway that begins with certificates for AINs flows on to diplomas for ENs and ultimately to RN bachelor's courses could attract students from populations currently underrepresented in nursing.

Trends affecting nursing education

Ageing. As the population ages and life expectancy increases, the burden of disease is shifting from acute to chronic conditions. Although today's nursing education does not ignore chronic diseases, it is only beginning to think about the role nursing can play in

preventing them. In future, health promotion and patient self-management will merit much higher profiles in nursing education.

Mental health. Nursing education, at all levels, must reflect national health priorities, and one of the most urgent is mental health. Specialist mental health nurses are not the only ones who encounter people with mental health issues. Psychological problems arise in all health settings, and every nurse must be prepared to recognise and assist with their management. People with mental health problems often have other health issues, as well. Because of their focus on treating the whole person, nurses are especially effective in helping people with both psychological and physical problems.

In addition to managing psychological problems, the promotion of positive mental health is an essential aspect of nursing education and will become even more critical in the future. Nursing environments can be stressful, and there are many reports of aggression from patients and bullying from colleagues. The high suicide rate among nurses reinforces the need for them to acquire the knowledge, skills, and resilience required to protect their well-being. To ensure that all nurses are adequately prepared, course accreditation standards for ENs and RNs must be specific about the core areas of mental health that need to be covered and the required learning outcomes.

The need for inter-disciplinary education

As already noted, older people often have multiple health problems that require care from a team of professionals. With their holistic philosophy and concern for person-centred care, nurses make ideal leaders of multidisciplinary teams. To fill this leadership role, the nurses of the future will need strong teamwork, communication, and collaboration skills. Inter-professional education is already an accreditation requirement, but there is little evidence that it is occurring. It should no longer be neglected.

Internationalisation

Australian nurses who choose to work internationally must meet the conditions of the countries in which they wish to practise. These conditions may include examinations and a certain amount of work experience. Australian credentials are well-accepted by other countries. As a consequence, Australian nurses can be found practising around the world. Internationalisation is a two-way street. Each year thousands of international students and nurses come to Australia to study and work; they have added to the diversity of the Australian nursing workforce. In future, internationally trained nurses will have to undergo examinations to practice in Australia.

Explosive growth in technology and data

Information technology has permeated every aspect of health care. The proposed RN accreditation standards require HEPs to include “health informatics and digital health technologies” in their curricula. This requirement is quite broad; it gives HEPs considerable scope to decide what to include. To ensure that all nurses receive an appropriate and consistent education, ANMAC will need to develop specific guidelines about which aspects of informatics and digital health technologies to include in the curriculum, and the skill level nurses are expected to attain.

Preparing for the future

The review received many requests to add topics to the nursing curriculum, but it did not receive any advice to remove anything. Over the years, nursing curricula have become increasingly integrated and problem-based. They once emphasised content, but they now focus mainly on concepts. Just adding new subjects without thinking of how they fit into the whole can cause the curriculum to become confused. To maintain curriculum coherence, HEPs must make choices which align with national, and local, needs and health policies.

How many nurses do we need?

Workforce planning and education are not well integrated. Several submissions identified a disconnect between the number of graduating nursing students and the jobs available for them. The disconnect occurs because national workforce plans lack sufficient specificity to identify the need for nurses in a particular region. Also, balancing supply and demand in nursing is difficult because there are few control mechanisms available. To provide more timely and accurate information to education providers and employers, policy-makers should focus on local “replacement rates” (how many nurses enter and leave the profession over a particular period) rather than broad national trends.

Online delivery and simulation

Online education is ubiquitous. In most cases, it is blended with face-to-face learning, but some courses are offered entirely online, with little face-to-face course content. Solely online courses are a boon to students in rural locations, those obligated to work while studying, or students with family care responsibilities. Entirely online nursing courses have social benefits, but the efficacy of such courses has not been established. Further research is required to demonstrate that students studying solely online are acquiring the knowledge, skills, and attitudes necessary for safe practice.

Another area of teaching that requires more research is simulation, which is currently used to teach subjects ranging from birth to end-of-life care. Some countries permit simulation to replace a proportion of clinical placement hours. Because of the relatively low number of placement hours required of Australian nursing courses, most commentators were opposed to such substitution. Still, it would be worthwhile studying how simulation and clinical placements could be combined to produce the best and most efficient learning outcomes.

Nurse practitioners, specialists, and academics

The only legally regulated advanced practice nurses in Australia are nurse practitioners (NPs). NPs originated in the USA where they were conceived as mid-level primary care providers for under-served areas. NPs were supposed to serve a similar purpose in Australia, but they became instead a way for specialist nurses to gain recognition for their professional skills. As a result, most current NPs practise as specialists. The availability of lower-cost RN specialists, resistance from doctors, and restrictions on their scope of practice have limited NPs' employment possibilities. They make up only around one-half of one per cent of nurses.

Because nursing is rebalancing from acute to primary care, the time is right to revive the original rationale for NPs. A focus on primary health care will require significant changes to the education of NPs. Master's degree courses will need to be redesigned with primary care in mind. Lengthy periods of advanced practice in a particular area, which encourages extreme specialisation, will need to be replaced with broad knowledge of a range of areas. To accelerate the preparation of NPs, their knowledge, skills, and competence should be demonstrated by independent assessments rather than the number of years spent practising in an area. A recent cost-benefit analysis commissioned by the Department of Health found that enabling patients to access Medicare rebates for care provided by NPs would improve access and deliver substantial savings to the health care system.

Increasing the number of nursing academics

Australian nursing faculties score well on measures of research; their academics have the expertise to supervise the next generation of nursing academics. Training more academics is necessary, as many are approaching retirement. Because clinical roles pay better than junior academic ones, it is difficult for HEPs to recruit new staff. One solution is to pursue joint appointments, which allow academics to spend part of their time teaching, and the remainder in health service provision. Academics working in both sectors would be able to ensure their teaching was relevant to clinical realities. HEPs should also recruit males and minority group members whose under-representation impact the teaching of cultural awareness.

Reviewing progress

The appropriate body to oversee and monitor the process of implementing this review's recommendations is the National Nursing and Midwifery Education Advisory Network (NNMEAN). The government should consider commissioning a follow-up review after four years to assess the progress in carrying out the recommendations contained in this report.

Recommendations

Recommendation 1. To protect the public, assistants in nursing (whatever their job title) should have mandated education, English language, and probity requirements, which are accredited, assessed, and enforced by a robust quality-assurance regime.

Recommendation 2. NMBA (in association with AHPRA and other professional boards) should commission research comparing the validity of various English language proficiency tests for assessing nurses' language skills in a work environment. This research should form the evidence-base for choosing and implementing an appropriate test for registration purposes.

Recommendation 3. ANMAC should amend the evidence guide used for accreditation to include a mandatory report on the credentials and number of qualified English language experts employed to assist students to apply their English language skills at work and evidence that these experts are available to students who need assistance.

Recommendation 4. NMBA should require all candidates for registration to undergo an independent assessment to demonstrate they have the literacy and numeracy skills required to practise safely.

Recommendation 5. To improve the quality of nursing education across the country, ANMAC should make accreditation and monitoring reports public. It should point out areas of poor practice and disseminate information about effective teaching techniques and initiatives. In a commitment to transparency, ANMAC should create a publicly accessible database, containing comparative information about all accredited nursing courses.

Recommendation 6. NMBA practice standards should specify the core knowledge, skills, and procedural competence newly registered ENs and RNs require to function in any workplace setting.

Recommendation 7. To ensure quality and equity, NMBA and ANMAC should consider implementing an accreditation system for clinical placements. Only practice hours spent in accredited placements should count toward meeting practice hour requirements.

Recommendation 8. Given rising clinical placement charges and the cost of accrediting professional placements (see Recommendation 7), the Department of Education should review the costs and funding of undergraduate nursing education to ensure it is adequate to provide high-quality theoretical and clinical education.

Recommendation 9. The Department of Health should review the Rural Health Multidisciplinary Training Program guidelines to ensure that nursing education gains the benefits of longer regional placements, interdisciplinary training, and travel subsidies.

Recommendation 10. To ensure that all nurses are adequately prepared, ANMAC and the NMBA should increase the minimum number of placement hours required for the Bachelor of Nursing degree to 1,000 hours. ANMAC/NMBA should also increase the minimum number of placement hours required for EN diplomas and graduate-entry master's degree programs proportionately.

Recommendation 11. The outcomes-based cognitive and behavioural assessments that will be used to determine whether internationally educated nurses are safe to practise in Australia should be used to serve the same purpose for domestic graduates.

Recommendation 12. As RNs take on increasing responsibility for complex care, it is likely that three years of higher education will be insufficient to prepare the nurse of the future. Working with NMBA, ANMAC, the Commonwealth education department, and other stakeholders, HEPs should explore ways to extend nursing education, including the option of nesting an associate degree in a four-year bachelor's degree.

Recommendation 13. NMBA and ANMAC should establish a national web-based TTP. The TTP should be flexible enough to be tailored to the individual needs and circumstances of different workplaces. Completing this TTP should be a requirement for all nurses in their first year.

Recommendation 14. The Commonwealth Department of Health should fund a national campaign designed to attract under-represented groups to nursing. NNMEAN should oversee the campaign and ensure that key stakeholders are engaged in its development and conduct.

Recommendation 15. HEPs should develop robust articulation arrangements from VET credentials to degrees. Exit points should allow students to work while continuing their studies. HEPs should also consider creating EN associate degrees to facilitate a smooth transition between EN and RN qualifications.

Recommendation 16. HEPs should consider forming consortia to develop recruiting, transition, and preparedness programs specifically designed to attract Indigenous students to nursing and to support them in making the transition to tertiary education.

Recommendation 17. Nurses should be prepared by their academic work and clinical placements to enter the workforce in a range of practice environments. ANMAC's accreditation standards should encourage the re-orientation of nursing education toward primary care, which may require an easing of restrictions on who can oversee nursing education.

Recommendation 18. Mental health is a national priority area; it should also be a priority area for educational institutions preparing nurses for practice. ANMAC has added "content related to mental health" to its proposed RN accreditation standards. The EN and NP accreditation standards should be amended to contain a similar requirement. To ensure that all nurses are adequately prepared, the accreditation standards should be specific about the core areas of mental health that must be covered and the required learning outcomes.

Recommendation 19. ANMAC's accreditation standards require inter-professional learning to be "embedded in the curriculum." The EN accreditation standards should contain the same requirement. In both cases, the accreditation standards should include specific learning outcomes and assessments. AHPRA should consider establishing a national centre for inter-professional practice to guide the development of inter-professional education and collaborative practice.

Recommendation 20. ANMAC's RN accreditation standards for health informatics and digital health technologies should specify learning outcomes and the level of expertise required. The EN accreditation standards should contain similar specifications.

Recommendation 21. In the process of specifying the core knowledge, skills, and procedural competence newly registered ENs and RNs need to function in any workplace setting (see Recommendation 6), NMBA should use national and local health priorities as a guide.

Recommendation 22. In partnership with states and territories, the Commonwealth Department of Health should initiate an ongoing assessment of replacement, recruitment, and retention rates for generalist and specialist nurses across the country.

Recommendation 23. The Commonwealth Department of Health should sponsor research aimed at determining the ideal mix of online and face-to-face teaching as well as how best to integrate simulation and clinical placements.

Recommendation 24. In line with national health priorities, NP education should be oriented toward primary care, particularly in the regions. Advanced practice requirements should be revised to encourage the formation of the broad skills required in primary practice. Expertise should be demonstrated by independent assessments. Access to the Medicare Benefits Schedule for NP services should be reviewed.

Recommendation 25. Government and HEPs should increase their support for doctoral studies in nursing, especially for members of minority groups.

Recommendation 26. The National Nursing and Midwifery Education Advisory Network (NNMEAN) should be given responsibility for monitoring the realisation of this review's recommendations. The government should consider commissioning a follow-up review after four years, with the aim of assessing the progress in implementing the recommendations contained in this report.



SECTION 1:

Introduction

*Caring is not for amateurs.
—Florence Nightingale¹*

Section 1 describes the rationale for the review and explains how it was conducted. Findings and recommendations for improvement are detailed in later sections of this report.

1.1 Rationale for the review

Although Australian nursing can trace its history back to the early 1800s, when nuns in religious orders served as unpaid assistants to doctors, professional nursing did not begin until 1868 when Lucy Osburn moved from London to take up the position of Lady Superintendent at the Sydney Infirmary.² Osburn brought along five probationary nurses educated in the holistic approach to nursing developed by Florence Nightingale. Osburn taught her nurses to focus on people, not illnesses, and to ensure that all patients were clean, well-fed, and rested. Her nurses were also

required to collect data by keeping notes on patients' progress. Much has changed since Osburn's time, but her patient-centred, holistic, evidence-based philosophy continues to underpin Australian nursing today.

Box 1. Patients versus clients

Some nurses prefer the word “client” to “patient” because they feel it signifies a more collaborative relationship between the provider and the receiver of nursing services. However, a survey of 101 people attending a pain clinic found that 75% preferred to be called a patient rather than a client.* Thus, except in special cases, this review refers to those who receive nursing care as patients.

* Wing, P.C. (1997). Patient or client? If in doubt, ask. *Canadian Medical Association Journal*, 157:287–9.

Nursing's underlying philosophy remains unchanged, but we know from history that the skills, knowledge, and competencies required of nurses are continually evolving. A century ago, the NSW Bush Nursing Association considered horseback riding a useful skill for country nurses.³ By 2002, the year of the last national review of nursing education, horseback riding no longer rated a mention.⁴ It was replaced by competencies more relevant to the time.

In the 17 years since the last review of nursing education, the world has changed dramatically. There are now national accreditation standards for all levels of nursing courses as well as a national accreditation body. The number of students completing Bachelor of Nursing courses each year has increased by almost 200 per cent since 2002, while Australia's population grew by only 25 per cent. Many of these new nurses work outside of hospitals — in schools, primary care clinics, rehabilitation agencies, aged care facilities, and mental health services. No matter where they work, it is vital that all nurses are competent, compassionate, and capable of thinking critically. They must

also possess the skills to participate in, and increasingly to lead, teams of professionals from other disciplines.

To ensure that Australia is providing nurses with the education required to fill their diverse roles, the Australian government's *Stronger Rural Health Strategy* called for an independent examination of the educational preparation of nurses. As a consequence, the current review, *Educating the Nurse of the Future*, was announced as a measure in the 2018/19 Federal Budget. This report constitutes the outcome of that review. It covers the educational preparation of nurses to meet professional registration requirements wherever such education takes place — in vocational institutions, universities, hospitals, and clinics.

The review was designed to answer a variety of questions, but one was central and paramount. Is the current preparation of nurses sufficient to meet the present and, more importantly, the future health needs of all Australians? The focus on the future is particularly important. Australians are living longer, but many older people live with the burden of complex chronic diseases — arthritis, diabetes, dementia. Nurses, traditionally educated in hospitals, will be increasingly called on to deliver care in the community. The nurses of the future will also have to learn to implement more advanced technologies and expand their efforts to promote wellness and prevent illness.

To make their full contribution to health care, nurses must not be viewed as adjuncts to other professions; they will need to be fully realised independent health professionals working with other professionals in teams. In the future, the complex health problems arising from the ageing population will make inter-professional cooperation, what we used to call teamwork, even more essential than it is today.

In addition to educational preparation, the review looked at the factors that influence people to choose nursing as an occupation. Why do people select nursing as a career, and why do some decide to leave it? The review

also compared Australian nursing education with other countries.

There is much that is excellent about Australian nursing education, and the fundamentals of high-quality nursing education are already in place. Australia has a system of national standards for course accreditation. It also has a diverse set of educational institutions that have developed innovative curricula to meet those standards. Still, there is considerable work to be done to strengthen the partnership between clinicians and educators, increase the diversity of the nursing workforce, improve career paths, foster inter-professional collaboration, and ensure that all nurses are adequately prepared for their roles. We must also be more creative about addressing the unique needs of the regions. These issues and related topics are covered in this report.

One last point. Some things never change. Like the nurses of the past and the nurses of the present, the nurses of the future will confront the highs and lows, the complexity and multiplicity, the triumph and the tragedy of human experience. More than any other health professional, nurses know what people go through in the name of treatment. As box-ticking, form-filling, and report-writing hijack more and more of a nurse's workday, we must somehow ensure that the compassionate humanity required for healing is not lost under piles of bureaucratic paperwork.

1.2 Aims and terms of reference

This review aims to ensure that the educational preparation of nurses meets the future service delivery needs of the Australian health system. The review considered nursing education in all its contexts as well as how to attract people to nursing, the international competitiveness of Australian nursing education programs, and the articulation and career paths of the preparation programs for enrolled and registered nurses as well as nurse practitioners.

Box 2. Acronyms used in this report

AHPRA	Australian Health Practitioner Regulation Agency
AIN	Assistant in Nursing
ANMAC	Australian Nursing and Midwifery Accreditation Council
ANMF	Australian Nursing and Midwifery Federation
ASQA	Australian Skills Quality Authority
ATAR	Australian Tertiary Admission Rank
AQF	Australian Qualifications Framework
BPCLE	Best Practice Clinical Learning Environment
CATSINaM	Congress of Aboriginal and Torres Strait Islander Nurses and Midwives
EN	Enrolled Nurse
HEP	Higher Education Provider
IELTS	International English Language Testing System
LANTITE	Literacy and Numeracy Test for Initial Teacher Education
NCLEX	National Council Licensure Examination
NMBA	Nursing and Midwifery Board of Australia
NMC	Nursing and Midwifery Council (UK)
NNMEAN	National Nursing and Midwifery Education Advisory Network
NP	Nurse Practitioner
NRAS	National Registration and Accreditation Scheme
OTE	Occupational Test of English
PTE	Pearson's Test of English
RHMT	Rural Health Multidisciplinary Training Program
RN	Registered Nurse
RTO	Registered Training Organisation
TEQSA	Tertiary Education Quality and Standards Agency
TTP	Transition to Practice Program
TOEFL	Test of English as a Foreign Language
VET	Vocational Education and Training

The terms of reference for this review were set out by the Australian Government as follows.

To examine:

- the effectiveness of the current educational preparation of, and articulation between, enrolled and registered nurses and nurse practitioners in meeting the needs of health service delivery;
- factors that affect the choice of nursing as an occupation, including for men and other under-represented groups;
- the role and appropriateness of transition to practice programs however named; and
- the competitiveness and attractiveness of Australian nursing qualifications across international contexts.

To consider:

- the respective roles of the education and health sectors in the education of the nursing workforce.

To make recommendations on:

- the educational preparation required for nurses to meet the future health, aged care, and disability needs of the Australian community including clinical training;
- processes for articulation between different levels of nursing; and
- mechanisms for both attracting people to a career in nursing (both male and female) and encouraging diversity more broadly.

To have regard to:

- regional needs and circumstances; and
- national and international trends, research, policies, inquiries and reviews related to nursing education.

The review did not begin with any preconceptions or assumptions. Ideas and suggestions were tested and shaped by research findings and stakeholder feedback. The review was also fortunate to have advice from the National Nursing and Midwifery Education Advisory Network (NNMEAN). The membership of NNMEAN includes

a cross-section of professionals with knowledge, experience and influence in the areas of workforce, education, policy, and employment.

1.3 The review's work program

The primary source of information for this review was stakeholder feedback. From February through June 2019, the review undertook an extensive schedule of face-to-face consultations in metropolitan, regional, and rural areas (see Appendix 1 for a list of consultations). As part of the review, meetings were also held with many of the boards, committees, and organisations responsible for teaching, devising standards, accrediting, supervising, and assessing nurse education. The review also met with students. Altogether, more than 1,100 educators, clinicians, supervisors, policy-makers, patient group members, students, managers, and union representatives accepted the offer to attend a consultation. In addition, the review received written submissions, commissioned four research papers, and received over 500 responses to surveys of targeted groups including early-career nurses, male nurses, nurse practitioners and their mentors.

To ensure that everyone who attended had the opportunity to have their opinions recorded, whenever possible, polling software was used to capture information from large groups. Smaller consultations used a roundtable discussion format. In both cases, challenging ideas put forward in early consultations were tested in later ones. Some were discarded and others were added. In this way, ideas were refined over the course of the review. Individuals and organisations were also invited to make written submissions. Eighty-four took up this invitation (see Appendix 2 for a list). I am grateful to those who participated in the consultations and those who made written submissions; this report could not have been written without their advice and guidance.

To support its work, the review commissioned the Centre for Health Service Development at the University of Wollongong to summarise the research literature on what a nurse needs to know to be “work ready;” how best to teach nurses clinical skills; why people choose to be nurses (and why some leave the profession); and some possible future directions for health care. I am indebted to the scholars who produced these excellent papers. Their research has been published as companion documents to this report (see Appendix 3).

The review involved an intense consultation schedule and analysed a large amount of evidence. I debated the interpretation of this evidence with colleagues and stakeholders. I also sought feedback from NNMEAN, but the recommendations made in this report should not be taken as representing NNMEAN’s views nor the views of the Department of Health. The recommendations reflect my independent view of how nursing education may be improved.



SECTION 2:

Nursing Education: Content, Delivery, and Quality Assurance

*The hurt and wounded I pacify with soothing hand;
I sit by the restless all the dark night.
—Walt Whitman⁵*

This report is divided into six sections. Section 1 was the introduction. Section 2 is an overview of the content, delivery, and quality assurance of Australian nursing education as it exists today. Following Section 2, which explains how the various components of the nursing education system are intended to operate, Section 3 uses feedback from stakeholders to describe how the system works in practice. Based on commissioned research, review submissions, and relevant international examples, Section 3 also contains recommendations for how nursing education can be improved. Section 4 deals with why people are attracted to nursing and what causes some to leave the profession. It contains recommendations for improving the recruitment, diversity, and retention of nurses. Section 5 considers how nursing education may have to change to meet the challenges of the future. Section 6 briefly sums up the review recommendations and proposes a strategy for implementing them.

According to harried clinical managers, nursing graduates should be able to “hit the ground running” on their first day. Academics, on the other hand, wish to prepare graduates for a lifetime of learning. The conflict between the immediate needs of clinical managers and the long-term needs of society, between training and education, and between theory and practice divides professional educators from practitioners, policymakers from politicians, and it divides graduates too.⁶ This report represents an attempt to bridge these divides. It begins by describing nursing education as it exists today.

Box 3. Note on quotes

Unless indicated otherwise, quotations in boxes come from the consultations or written submissions.

2.1 What is a nurse?

There are 378,325 nurses currently registered to practise in Australia.⁷ They make up the largest of the health professions, and their work plays a crucial role in determining health outcomes.⁸ To the public, the helpful people who welcome patients to a hospital ward, administer flu shots in a doctor’s office, or look after their relatives in nursing homes are all nurses. In reality, there are different types of nurses, and some “nurses” are not really nurses at all. The question “What is a nurse?” may seem simple, but like many simple questions, the answer turns out to be more complicated, and considerably more consequential, than it first appears. This section begins by describing the different types of nurses and differentiating them from other health care workers.

2.1.1 Assistant in nursing (AIN)

Assistants in Nursing (AINs) are not nurses; they are carers. Their main job is to assist people in performing the tasks of daily living — feeding, showering, toileting, and walking. It may seem anomalous to mention AINs in a review of professional nurse education

because AINs are neither professionals nor nurses. Although not explicitly included in this review’s terms of reference, AINs are included in this review because they assist nurses to carry out nursing tasks and often work under their supervision.

AINs work in residential facilities as well as hospitals and primary health care clinics. Their job titles vary — aged care workers, disability support workers, personal care assistants, care support workers — but they are all AINs. There are no formal regulations regarding the training of AINs. Some employers require AINs to hold vocational certificates in health care, but others do not. (See Box 4 for an overview of educational credentials.)

Although employers have set guidelines for the duties they are permitted to perform, there are no national practice standards for AINs. As a consequence, supervisors (often nurses) must make uninformed judgements about which tasks may be safely delegated to them. Employing unvetted workers to care for the residents of aged care facilities and other vulnerable people raises obvious questions about safety.⁹ Indeed, incidents of neglect and poor practice, which affected the safety of the residents of aged care facilities, led to the establishment of a Royal Commission.¹⁰

Instead of regulating their education, work, and practice, state and federal governments have introduced a national code of conduct for AINs and other health care workers.¹¹ This code forms part of what is called a “negative licensing” regime. Specifically, anyone can work as an AIN, but “disciplinary action can be taken ... in circumstances where a health care worker’s continued practice presents a serious risk to public health and safety.” To appreciate the inadequacy of the “negative license” approach to public safety, try to imagine applying it to pharmacists, doctors, or any other health professional. It is unacceptable that workers whose education and expertise are not regulated are caring for some of the most at-risk people in the health system. Section 3 of this report contains a recommendation concerning the education of AINs.

Box 4. The Australian Qualifications Framework (AQF)*

To impose order on the bewildering array of certificates, diplomas, and degrees offered by educational institutions, the government introduced the Australian Qualifications Framework (AQF) in 1995. The AQF describes the knowledge, skills, and learning outcomes expected for different academic qualifications and standardises them across education providers, settings, and delivery modes. The AQF contains ten levels beginning with certificates and ending with doctoral degrees.

In the AQF, nursing qualifications are ordered according to expertise and authority (see Table 1). The entry level for an enrolled nurse is a diploma offered by a vocational education and training provider. Registered nurses must complete a bachelor's degree course at a higher education institution. Both enrolled and registered nurses can extend their knowledge by taking additional courses.

Nurse practitioners must complete master's degrees, which prepare them for advanced practice and leadership. Graduates who already hold a degree in some other discipline and who wish to enter the nursing profession may undertake a graduate-entry master's degree. Doctoral degrees are the highest qualifications in the AQF. They require students to make a significant contribution to knowledge through their research.

* The AQF is currently under review. See <https://www.education.gov.au/australian-qualifications-framework-review-0>

of registered nurses. ENs must complete a vocational Diploma of Nursing offered face-to-face or online by a registered VET training organisation (RTO). RTOs include TAFE and a range of public and private education providers, including some hospitals. The Diploma of Nursing falls into AQF level 5. The duration of the course is 18 months to two years. Entry is generally open to students with a senior school certificate or a level IV vocational certificate. Nationally, there are around 28,000 students enrolled in diploma courses offered by 78 RTOs.¹³ Fees range from around \$20,000 at private colleges to zero for eligible students in Victorian TAFE Colleges. Government fee loans are available for qualified students.

Although ENs may undertake additional training by completing an advanced diploma (AQF level 6), only a tiny number take up this option.¹⁴ It seems that additional study at the VET level brings few career benefits; ENs who wish to advance in their careers are better off continuing their studies in higher education.

The Diploma of Nursing curriculum is derived from a “training package” whose design is guided by a national industry reference committee including representatives from nursing organisations, employers, unions, and other interested parties. The training package sets out the skills and knowledge expected of an EN; these are known as competencies. A student who acquires a certain number of “units of competency” and completes a minimum of 400 hours of clinical experience, qualifies for the diploma. The training package, which is endorsed by federal and state governments, is offered nationally. The content of the training package plays a significant role in determining what ENs are enabled and expected to do. (Note, the EN training package is currently under review.)

To encourage innovation in pedagogy, the training package does not explicitly stipulate how to teach courses. On the other hand, assessment requirements are set down in precise detail. For example, the EN training

2.1.2 Enrolled nurse (EN)

As may be seen in Table 1, enrolled nurses (ENs) represent the first level of nursing; they constitute approximately one-fifth of the total nursing workforce.¹² The title “enrolled nurse” conveys little information about the EN role. ENs are not enrolled in anything; they are subordinate nurses who are required to work under the direct or indirect supervision

Table 1. Nursing-Related Education in the Australian Qualification Framework

Type of Practitioner	AQF level	Qualification
	1	Certificate I
	2	Certificate II
Some AINs	3	Certificate III
	4	Certificate IV
Entry level Enrolled Nurse (EN)	5	Diploma
EN with additional education	6	Advanced Diploma; Associate Degree
Entry level Registered Nurse (RN)	7	Bachelor's degree
RN with additional education, & Re-entry programs	8	Honours degree; Graduate Diploma; Graduate Certificate
Graduate RN, Graduate Entry RNs & Nurse Practitioners (NP)	9	Master's degree
Doctor of Nursing	10	Doctoral degree

package requires students to learn how to manage wounds. To prove they have attained this expertise, students must have:

performed wound care management, including wound assessment, health education and evaluation of a person's wound care in the workplace on 3 wounds, of which at least 1 must involve a simple wound dressing, and at least 1 must involve a complex wound dressing.¹⁵

The assessment requirements for the competency “confirm physical health status” are so extensive they occupy four pages.¹⁶ This high level of specificity ensures that all diploma courses, no matter where they are taught, represent the same competencies. Such consistency is useful for prospective employers who want to know what tasks newly graduated ENs are capable of performing on their first day on the job.

Residential aged care facilities employ 29 per cent of ENs; around half work in hospitals.¹⁷ The remainder work throughout the health system and in the defence forces where they may be known as medics. Depending

on where they work, ENs take on a variety of tasks, including checking a patient's vital signs, assisting with daily living, feeding, administering first aid, and maintaining a safe environment. Over the last decade, the “scope of practice” of ENs (the work they are permitted to do) has steadily increased.¹⁸ For example, ENs insert catheters, care for complex wounds, and administer medicines. Some ENs work in operating theatres, endoscopy laboratories, and other speciality areas where they may attain a high level of expertise in a specific technical task.

“Over the last ten years, the scope of practice of the enrolled nurse has grown and at the same time, the scope of practice of the registered nurse has not. This has caused role blurring between the two roles and some professional tension.”

Council of Deans of Nursing and Midwifery

Given the diversity of work performed by ENs, there is some confusion about the limits to their practice. For example, ENs are supposed to practice under the supervision

of a registered nurse; yet they are sometimes asked to supervise the work of AINs and newly graduated RNs.¹⁹ The implications of the expanding scope of EN practice will be addressed later in this report.

2.1.3 Registered nurse (RN)

Registered nurses (RNs) make up around 80% of the nursing workforce; they are nurses who work independently and have higher levels of responsibility, autonomy, and accountability than ENs. For example, RNs evaluate patients and develop plans for their care. To do this, they must have well developed problem-solving and decision-making skills. RNs also practice in inter-disciplinary teams to ensure that patients receive coordinated care. As already noted, RNs delegate tasks to ENs and AINs and supervise their work. In addition to patient care, RNs often have teaching, administrative, and management duties.

RNs work throughout the health system, in hospitals, aged care, rehabilitation, health promotion, health policy making, community health, and primary care. They also make essential contributions to the fields of mental health, geriatrics, paediatrics, intensive care, and many other fields. Regional areas, where there are few doctors, may depend on RNs for certain aspects of primary care.²⁰ RNs are also employed as educators in HEPs, VET institutions, and clinical practice settings.

Like “enrolled nurse,” the title “registered nurse” is not particularly meaningful. All types of nurses must be registered. However, RNs differ from ENs in several critical ways. First, instead of the vocational sector, RNs are educated in higher education institutions (HEPs), usually by completing a three-year undergraduate bachelor’s degree (AQF level 7). Like other higher education degrees, the Bachelor of Nursing is taught by academics, many of whom are actively involved in research. Studying with active researchers is a way of ensuring that students receive an education that is up to date with the latest research findings.

At present, there are more than 65,000 students enrolled in bachelor’s degree level nursing courses in around 35 HEPs. Some of these courses are offered face-to-face, while others are taught mainly online, and some combine both modes of learning. The standards for entry into nursing courses vary widely.²¹ Some HEPs restrict entry to students whose academic performance placed them in the top 20 to 30 per cent of school leavers while others accept students whose performance put them in the bottom half of school leavers. Of course, not all new nursing students enter their course straight from school, and preparation for higher education may be assessed in many different ways. The selection of nursing students is explored in more detail in Section 3.

Around 14 per cent of nursing undergraduates are international students; HEPs set their fees, which can approach \$40,000 per year. Domestic student fees are around \$7,000 per year, but the Higher Education Loan Program allows students to defer fee payments until their income reaches certain repayment thresholds. The 2002 Review of nursing education specifically recommended that nursing students be placed in the lowest fee category “to acknowledge the contribution that nurses make in the service of the community.”²² As a result, the tuition fee for domestic nursing students is the lowest charged for any public university course. However, since fee repayments are calculated as a percentage of a nurse’s salary and not on the total amount owed, a lower fee does not affect nurses’ take-home pay. It only affects how long it takes graduates to repay their loans. Although the 2002 recommendation to keep nursing tuition fees low has not changed the take-home pay of nurses, it has affected the income of public universities. Counting the Commonwealth’s contribution and student tuition fees, they receive \$7,000 more per year for a student studying science and \$12,000 more for a student studying agriculture than they receive for a nursing student.

Students who have studied previously (for example, those who have completed the

diploma in nursing) may receive credit for prior study reducing both the time to achieve their degree as well as the cost. Some students may elect to combine their Bachelor of Nursing with another course (midwifery, for example). Combining courses has the opposite effect — increasing the time to completion and raising the cost. In some cases, students who studied nursing in another country may complete a “bridging course” to qualify for Australian registration. There are also courses designed for nurses who have been away from the field for some time and wish to re-enter the profession.

Another route to becoming an RN, for students who have already completed an undergraduate degree in another discipline, is to complete a “graduate-entry” master’s degree course (AQF level 9). There are currently 13 pre-registration master’s degree courses offered in Australia.²³ After registration, RNs may augment their knowledge and skills by completing post-graduate courses in a variety of speciality areas.

“ One obstacle to undertaking Master of Nursing courses ... is only some courses attract Commonwealth subsidies. Many do not and when this occurs postgraduate nursing study must be fully paid by the student. ”

Universities Australia

The typical Bachelor of Nursing course may cover an extensive range of topics: anatomy, physiology, microbiology, psychology, cultural diversity, informatics, public health, mental health, pharmacology, ethics, clinical reasoning, Aboriginal health care, and child development, as well as clinical practice skills and knowledge. Also, students spend at least 800 hours on clinical placements. Despite the diverse set of subjects covered in the Bachelor of Nursing, many stakeholders believe the education of RNs is inadequate. Some argue that 800 hours of practical experience is insufficient. Others maintain that essential topics are either omitted or treated inadequately.

In their submissions to this review, critics of the current course advocated that more

undergraduate teaching time be devoted to pain management, incontinence, intellectual disability, cancer care, substance abuse, mental health, sleep disorders, developmental disabilities, and a host of other topics. These are all serious matters, clearly worthy of study. However, because none of the submissions suggested which subjects might be dropped from the current course to make room for their proposed additions, adding more teaching would significantly lengthen the course. A longer course would make nursing less attractive to students; it would increase their tuition debts and delay their entry to the workforce. From a societal viewpoint, a longer course would slow down the production of nurses. RN education is designed to produce generalist nurses who can slot into many different settings. Post-graduate study and experience are intended to build on a sound general base.

The length and content of the Bachelor of Nursing degree will be discussed further in Section 3. For now, it is crucial to note that degrees are fundamentally different from the standardised training package that governs EN education. Unlike the Diploma of Nursing, each bachelor’s degree course is unique. Apart from some mandatory requirements (the inclusion of knowledge about Aboriginal and Torres Strait Islander health issues and a minimum of 800 hours of clinical placements, for example), academics are free to fashion bespoke courses according to their priorities. Subjects with the same title offered by two different HEPs may not cover the same material; they may also have diverse learning outcomes and assessment methods. The latitude given to HEPs and academics provides considerable room for pedagogical innovation, but it makes it difficult for prospective employers to know what level of expertise to expect from graduates of different institutions.

“ One of the biggest challenges faced today by employers is the fact graduates with the same level of qualification enter the workplace with very different levels of practical skills. ”

Australian Private Hospitals Association

2.1.4 Nurse practitioner (NP)

Building on their registered nurse education, nurse practitioners (NPs) are educated to practise independently in advanced roles. In the course of their work; NPs may initiate and interpret diagnostic tests, make diagnoses, treat health conditions, prescribe medicines, and make referrals to specialists. Unlike other nurses, NPs may manage entire episodes of health care. Most NPs practice in speciality areas (diabetes management, for example), only a small number practice in primary care. An NP's specific scope of practice depends on his or her education, competence, and employment context.

The education of NPs is predicated on registered nurses building advanced expertise in their current area of specialisation, and it is a challenging process. Becoming an NP involves years of experience as a registered nurse in a specialised clinical field, at least 18 months of additional education at AQF level 9 and 300 hours of supervised clinical practice outside their regular work. Before they even begin their educational program, prospective NPs have to find clinical supervisors, organise their own clinical practice hours, and arrange the support of their current employer.

A typical NP master's degree covers a range of relevant contemporary issues. These may include digital health, leadership, professional accountability, research, and many other areas. Most importantly, NPs must demonstrate excellence in an advanced area of practice. Given the difficulty of becoming an NP and the small number of jobs available for them, it is not surprising that there are only 1839 endorsed NPs in Australia (less than one-half of one per cent of the nursing workforce). There is little reliable data about the number of NPs employed or practising privately in any given specialty. Because of their small number and mainly specialised focus, it is difficult to gauge their impact on societal health outcomes.

“ The nurse practitioner who sits at the top of the nursing hierarchy in Australia is underutilised because of their overly-specialised focus ”.

Australian Catholic University

2.1.5 Midwives

Midwives support, assist, and care for women during pregnancy, labour, and the birth process. They may also care for mothers and babies for a period after birth. Although many midwives are nurses, midwifery is an independent profession. The education of midwives is not part of the current review.

2.1.6 Nurses with postgraduate degrees

HEPs provide a wide range of postgraduate diplomas and master's degrees in nursing, which allow RNs to become highly skilled specialists in a variety of nursing areas. Doctoral degrees in nursing are designed to help candidates develop advanced research skills. Although they may be useful to practitioners, these research programs are of particular interest to nurses who plan careers in higher education.²⁴

2.1.7 Articulation between and among qualifications

Using one academic qualification as a pathway to a higher one is called articulation. There are two general types of articulation in nursing education. The first concerns courses taken within a single institution and the second refers to courses taken at different institutions. Not surprisingly, articulation within an individual institution is generally easier than articulating across institutions, particularly when they are in different educational sectors (VET versus higher education).

An example of intra-institutional course articulation is a master's degree which contains, nested within it, a graduate certificate and a graduate diploma. A student who completes the first third of the course earns a graduate certificate; completing two-thirds gives the student a graduate diploma and fulfilling all the course requirements leads to the award of a Master of Nursing degree. In this type of articulation, students receive full credit for all of their completed studies.

Articulation between institutions is different. ENs who complete a Diploma of Nursing in an RTO and choose to continue their nursing education by enrolling in a Bachelor of Nursing program do not get credit for their entire period of study. Typically, they receive one-year's credit toward their bachelor's degree. However, some students may be offered less, and a few may receive no credit at all. We will return to the question of articulation in Section 3.

2.1.8 What's in a name?

Enrolled nurses, registered nurses, and nurse practitioners have legally protected titles.²⁵ Only those who meet a set of detailed requirements may use them. Curiously, the scope of practice available to nurses is not similarly protected. Different types of nurses may be found performing what appear, on the surface at least, to be similar tasks. ENs seem to overlap the work of RNs while some RNs occupy roles not very different from those of NPs. Overlapping responsibilities create ambiguity, blur nurses' professional identities, and lead to tension among different types of nurses.²⁶ The nursing profession has tried to deal with professional identity issues at least partly through a system of practice and accreditation standards, which are discussed next.

Box 5. Evaluation of overseas educated nurses

The Nursing and Midwifery Board of Australia has announced that it will soon begin to use an “outcomes-based” assessment to evaluate whether internationally-educated nurses are suitable for registration. If an applicant's course of study is not deemed by the NMBA to meet criteria ensuring that it is equivalent to Australian standards, internationally educated applicants for registration will undergo a set of standardised assessments. These will cover communication, literacy, numeracy, familiarity with the Australian health system, and clinical skills. To be successful, applicants will have to meet the standard of an “entry-level” nurse. When the new system comes into effect, Australia will simultaneously use two diametrically opposite approaches to determine suitability for practice — outcome-based individual assessments for nurses educated abroad and input-based institutional accreditation for nurses educated in Australia.

2.2 Nursing education: a matter of standards

Given the sensitive nature of their work, health care professionals must acquire the skills, knowledge, and personal qualities necessary for safe, proficient, and effective practice. To assure the public that health care professionals are competent, some professions require independent assessments of each graduate. For example, physiotherapists, psychologists, and pharmacists must pass an examination before they can be registered to practice. Examinations are also required for the vocational registration of doctors. Many countries have a similar requirement for nurses.²⁷ Australia is not one of those countries. Except for nurses educated abroad (see Box 5), Australia does not directly assess the proficiency of graduates. Instead, Australia evaluates educational institutions using accreditation standards. Accredited

education providers are assumed to produce qualified graduates. The validity of this assumption is explored in Section 3 of this report. The present discussion deals with the rules, regulations, and processes intended to assure that Australian-educated nurses are adequately prepared for practice.

2.2.1 Post-secondary academic accreditation

All higher education institutions in Australia must meet a set of threshold standards for the delivery of higher education promulgated and regulated by the Tertiary Education Quality and Standards Agency (TEQSA). Universities and some non-university HEPs are self-accrediting. They can certify their own courses within an overall institutional quality assurance framework approved by TEQSA. Higher education providers that do not have self-accrediting authority must have their courses approved by TEQSA. Standards for the delivery of vocational education are administered and monitored by the Australian Skills Quality Agency (ASQA) except in Victoria and Western Australia, which have their own state regulatory bodies.

Academic accreditation by TEQSA, ASQA, or state regulators is a form of certification. It informs the public that an educational institution has met specific quality standards for governance, probity, infrastructure, student welfare, teaching, admissions, assessment, and other relevant areas. Accreditation by the sector-appropriate regulator is a necessary pre-requisite for any education provider wishing to offer education or training in nursing. However, it is only the first step. Nursing courses must also receive profession-specific accreditation, which is discussed next.

2.2.2 Accreditation of nursing courses

Assuring the quality of the education received by health practitioners was once the responsibility of the states and territories.

The result was a fragmented system characterised by the Productivity Commission as “complex, poorly co-ordinated, and insufficiently responsive to changing needs and circumstances.”²⁸ Because standards varied across jurisdictions, it was difficult for practitioners to move between states and territories. Over the past decade, the state-based system for accrediting the education and controlling the registration of health professionals has evolved into a National Registration and Accreditation Scheme (NRAS), operating under the Health Practitioner Regulation National Law (National Law).²⁹ (See Box 6 for a relevant note.)

Box 6. NRAS review*

The system for the accreditation and registration of health care professionals was reviewed in 2017. Some of the recommendations of that review are still under consideration. If accepted, they may change the way the NRAS works. The description given here refers to the NRAS regime as of September 2019.

*Australia’s Health Workforce: Strengthening the education foundation. 2017.

The National Law has six objectives: It strives to:

1. protect the public by ensuring that health practitioners are suitably trained, competent, and ethical;
2. make it easier for practitioners to move between states and territories;
3. improve the quality of education and training;
4. create an assessment and registration regime for overseas-trained health professionals;
5. improve the public’s access to health services; and
6. encourage educational innovations aimed at creating a flexible, responsive, and sustainable health workforce.

Under NRAS, the quality assurance of nursing practice and education begins with the Australian Health Practitioner Regulation Agency (AHPRA). With the support of AHPRA, each health profession has a national board that regulates practitioners, accredits their education, and establishes ethical codes and practice standards. For nurses, the national board is the Nursing and Midwifery Board of Australia (NMBA). Supported by AHPRA, NMBA develops practice standards, codes of conduct, and guidelines for the nursing profession. It registers nurses — a necessity for employment — and also approves nursing course accreditation standards. (See Box 7 for the difference between accreditation and registration.) NMBA upholds the accreditation standards used to assess nursing courses and decides whether an accredited program of study provides a suitable qualification for registration. However, NMBA does not directly accredit educational courses; that is the job of the Nursing and Midwifery Accreditation Council (ANMAC).

Box 7. Accreditation versus registration

Completing an accredited course of study is an essential requirement for registration as a nurse, but it is not the only requirement. Individuals seeking registration must also pass a criminal history check, have a high standard of English language skills, be eligible for professional indemnity insurance, engage in continuing professional development, and, except for new graduates, must show that they have kept up their skills by recent practice in the profession.

ANMAC is not only the accrediting authority for nursing and midwifery education; it also assesses nurses who wish to access Australia's skilled migration program. Although AHPRA, NMBA, and ANMAC each play a crucial role in the quality assurance process, it is ANMAC that engages most closely with educational institutions.

ANMAC's accreditation regime operates in line with the National Law's guidelines, which require course accreditation schemes to be based on standards and to act in a transparent, accountable, efficient, effective, and fair manner. Unlike the academic accreditation conducted by TEQSA, ASQA, and state regulators, ANMAC accreditation certifies that an educational program equips graduates to meet the requirements for registration and professional practice. Despite their different purposes, some education providers have complained that ANMAC's accreditation requirements duplicate those of sector-specific regulators such as TEQSA. To ease the compliance burden on education providers, ANMAC is working with other regulators to share information and reduce overlap.³⁰

2.2.3 Practice standards

Australian law protects the use of nursing titles, but it does not keep those who do not qualify to use a title from performing similar work. This situation is not unusual in Australian health care. For example, "psychologist" is a protected title; only registered psychologists are permitted to use it. However, as long as they don't call themselves psychologists, anyone can offer psychotherapy. A similar situation exists for physiotherapy and other health professions.

Some countries, New Zealand is an example, give legal protection to a nurse's scope of practice.³¹ The closest Australia comes to carving out a specific role for different types of nurses is through the use of practice standards. Developed by NMBA using guidelines set up by AHPRA, practice standards set out expectations for how different types of nurses are expected to conduct themselves.

Box 8 summarises the practice standards for enrolled nurses. They are deliberately broad-based to make them applicable to a wide range of work settings. To add specificity to

the standards, each has a set of underlying “indicators.” Consider Standard 4, for example. It states that an EN “interprets information from a range of sources in order to contribute to planning appropriate care.” This standard has four underlying indicators:

- (1) Uses a range of skills and data gathering techniques including observation, interview, examination and measurement;
- (2) accurately collects, interprets, utilises, monitors and reports information regarding the health and functional status of people receiving care to achieve identified health and care outcomes;
- (3) develops, monitors and maintains a plan of care in collaboration with the RN, multidisciplinary team and others; and
- (4) uses health care technology appropriately according to workplace guidelines.

Practice standards for RNs and NPs are summarised in Boxes 9 and 10, respectively. As may be seen, when compared with ENs, RNs are expected to create clinical plans and reflect on their practice. Building on the performance standards for RNs, NPs are expected to prescribe, implement, and assess the outcome of therapeutic interventions. Not surprisingly, the indicators underlying practice standards for RNs and NPs are more rigorous than those applied to ENs.

Practice standards and their associated indicators serve several purposes. They can be used to differentiate the various types of nurses, they provide a basis for a nurse’s performance assessment, and, most importantly for our present purposes, practice standards offer a set of outcomes for professional education. That is, the central objective of nursing education is to equip nurses with the knowledge, skills, and personal characteristics necessary to meet the relevant professional practice standards. To determine whether educational institutions are achieving this objective, ANMAC has developed a set of accreditation standards for nursing education; these are discussed next.

Box 8. Practice standards for enrolled nurses*

Although ENs are required to work under the direct or indirect supervision of a specifically named and accessible registered nurse, they are still responsible and accountable for their actions. Their practice is governed by 10 practice standards. An EN:

1. functions in accordance with the law, policies, and procedures affecting EN practice;
2. practices nursing in a way that ensures, the rights, confidentiality, dignity and respect of people are upheld;
3. accepts accountability and responsibility for their own actions;
4. interprets information from a range of sources in order to contribute to planning appropriate care;
5. collaborates with the RN, the person receiving care and the health care team when developing plans of care;
6. provides skilled and timely care to people whilst promoting their independence and involvement in care-decision-making;
7. communicates and uses documentation to inform and report care;
8. provides nursing care that is informed by research evidence;
9. practises within safety and quality improvement guidelines and standards; and
10. engages in ongoing development of self as a professional.

*ANMAC <https://www.nursingmidwiferyboard.gov.au/Codes-Guidelines-Statements/Professional-standards/enrolled-nurse-standards-for-practice.aspx>

2.2.4 Accreditation standards

ANMAC’s accreditation standards, which are approved by NMBA, cover all aspects of academic preparation: institutional governance, quality assurance, student experience, subject matter, learning resources, assessment, and clinical experience requirements. ANMAC

must accredit education providers before they can offer a course intended to lead to NMBA registration. ANMAC's accreditation process is designed to ensure public safety while, at the same time, encouraging innovative teaching. In addition to the initial accreditation of nursing courses, ANMAC monitors and periodically re-accredits all nursing programs. Periodic monitoring is necessary to ensure that education programs are continuing to meet their obligations. Monitoring is also used to stimulate education providers to review and assess their programs, identify areas for improvement, and introduce new learning and teaching initiatives.

Box 9. Practice standards for registered nurses *

RN practice, as a professional endeavour, requires continuous thinking and analysis in the context of thoughtful development and maintenance of constructive relationships. RNs determine, coordinate, and provide safe, quality nursing. Their practice includes comprehensive assessment, development of a plan, implementation and evaluation of outcomes. As part of their practice, RNs are responsible and accountable for the supervision and delegation of nursing activity to enrolled nurses and others. The RN:

1. thinks critically and analyses nursing practice;
2. engages in therapeutic and professional relationships;
3. maintains the capability for practice;
4. comprehensively conducts assessments;
5. develops a plan for nursing practice;
6. provides safe, appropriate and responsive quality nursing practice; and
7. evaluates outcomes to inform nursing practice.

*<https://www.nursingmidwiferyboard.gov.au/Codes-Guidelines-Statements/Professional-standards/registered-nurse-standards-for-practice.aspx>

Like TEQSA and ASQA, ANMAC's accreditation process is becoming increasingly dependent on the analysis of "risk." In risk-based

accreditation systems, the regulator assigns each education program a risk rating based on its history of compliance and other factors. Low-risk programs are given more autonomy and are subject to less frequent and intrusive inspection than those rated medium or high-risk. Curiously, ANMAC cautions education providers to "regard every application as a new one, even if it draws on past curricula, evaluations and previously submitted information."³² This requirement suggests that ANMAC may not be entirely comfortable with a risk-based approach.

Box 10. Practice standards for nurse practitioners*

The nurse practitioner standards build on and expand on those required of a registered nurse. An NP:

1. assesses using diagnostic capability;
2. plans care and engages others;
3. prescribes and implements therapeutic interventions; and
4. evaluates outcomes and improves practice.

*<https://www.nursingmidwiferyboard.gov.au/Codes-Guidelines-Statements/Professional-standards/nurse-practitioner-standards-of-practice.aspx>

Box 11 summarises the nine accreditation standards for enrolled nurse diploma courses. Underlying these standards are 76 criteria that may be used to judge whether courses meet the standards. Some are quite prescriptive. For example, one rule stipulates that diploma courses must provide students with "a minimum of 400 hours of successfully completed workplace experience as an enrolled nursing student, not inclusive of simulation activities." Apart from commenting that 400 hours "received majority" support in their consultations, ANMAC provides no rationale for this recommendation. New Zealand requires 900 hours of supervised practice for enrolled nurses;³³ the UK requires even more placement hours for their "nursing associates."³⁴ Are those countries expecting

too much? Are we expecting too little? It's difficult to know as ANMAC does not provide a rationale, nor does it cite research.

Many of the other accreditation criteria are simply platitudes, such as, "instil in students

the desire and capacity to continue to use and learn from research and implement evidenced-based care throughout their careers." The standard does not say how to measure students' desire or capacity to use, learn, and implement research.

Box 11. Accreditation standards for enrolled nursing courses*

STANDARD 1: GOVERNANCE The education provider has established governance arrangements for the enrolled nurse program of study that develop and deliver a sustainable, high-quality education experience for students, to enable them to meet the Nursing and Midwifery Board of Australia (NMBA) Enrolled nurse standards for practice.

STANDARD 2: CONCEPTUAL FRAMEWORK The program provider makes explicit and uses a contemporary conceptual framework for the enrolled nurse program of study that incorporates an educational philosophy and a philosophical approach to enrolled nurse practice.

STANDARD 3: PROGRAM DEVELOPMENT AND STRUCTURE The program of study is developed in collaboration with key stakeholders reflecting contemporary trends in education and professional nursing; complying in length and structure with the Australian Qualifications Framework (AQF) for the qualification offered and enabling graduates to meet the NMBA Enrolled nurse standards for practice. Workplace experience is sufficient to enable safe and competent enrolled nursing practice by program completion.

STANDARD 4: PROGRAM CONTENT The program content delivered by the program provider comprehensively addresses the NMBA Enrolled nurse standards for practice and incorporates Australian best practice perspectives on enrolled nursing as well as existing and emerging international, national and regional health priorities.

STANDARD 5: STUDENT ASSESSMENT The program incorporates a variety of approaches to assessment that suit the nature of the learning experience and robustly measure achievement of required learning outcomes, including a summative assessment of student performance against the NMBA Enrolled nurse standards for practice.

STANDARD 6: STUDENTS The program provider's approach to attracting, enrolling, supporting and assessing students is underpinned by values of transparency, authenticity, equal opportunity and an appreciation of social and cultural diversity.

STANDARD 7: RESOURCES The program provider has adequate facilities, equipment and teaching resources, as well as staff who are qualified, capable and sufficient in number to enable students to attain the NMBA Enrolled nurse standards for practice.

STANDARD 8: MANAGEMENT OF WORKPLACE EXPERIENCE The program provider ensures that every student is given a variety of supervised workplace experiences conducted in environments providing suitable opportunities and conditions for students to attain the NMBA Enrolled nurse standards for practice.

STANDARD 9: QUALITY IMPROVEMENT AND RISK MANAGEMENT The program provider is able to assess and address risks to the program, its outcomes and students, and has a primary focus on continually improving the quality of the learning and teaching experience for students and the competence of graduates.

*<https://www.anmac.org.au/sites/default/files/ANMAC%20EN%20Accreditation%20Standards%202017.pdf>

ANMAC’s “evidence guide,” included in the list of criteria, provides suggestions to education providers about how they can demonstrate they comply with accreditation requirements. In some cases, certain types of evidence are mandatory. For example, to show that they meet Standard 1, on governance, providers of the Diploma of Nursing must confirm their successful completion of an ASQA audit report. Similarly, meeting the student experience standard requires a description of student support services. In most cases, the evidence used to prove compliance with a criterion is left to the discretion of the provider. The same evidence can be used to satisfy more than one standard (which suggests that the same question is being asked twice).

Given that enrolled nursing courses are governed by an industry-designed training package that specifies the program’s aims, student competency objectives, and assessments, EN diploma courses are

reasonably similar across providers. However, RTOs have their individual ways of teaching, and they use different sites for practical experience. Thus, ANMAC must assess each diploma course individually to determine whether it is meeting the accreditation standards in the classroom as well as in practice settings.

Box 12 and Box 13 contain the accreditation standards and criteria for RN and NP courses, respectively. The RN criteria are presented in detail because they represent a recent revision. As of September 2019, the time of writing this report, the revised RN accreditation criteria have not been promulgated by NMBA. However, they are included in this report in anticipation of their approval. Given the diversity of RN degree courses, a rigorous accreditation process is essential to ensure that providers are meeting the goals of the National Law and producing graduates capable of meeting NMBA practice standards.

Box 12. Revised accreditation standards for registered nursing courses*

Standard 1: Safety of the Public

- | | |
|-----|---|
| 1.1 | Protection of the public and person-centred care are the guiding principles of the educational program, professional experience placements and student learning outcomes. |
| 1.2 | Person receiving care gives informed consent to care provided by students. |
| 1.3 | Students are adequately prepared before providing care as part of the program. |
| 1.4 | Students and staff are held to the expected professional codes of conduct and ethics for the profession. |
| 1.5 | Health services providing students with professional experience placements have robust quality and safety policies and processes and meet relevant jurisdictional requirements and standards. |
| 1.6 | Students are supervised and assessed by appropriately qualified and experienced registered nurses during professional experience placements. In inter-professional practice settings supervision can be in collaboration with other registered relevant health professionals. |
| 1.7 | Students are registered with the Nursing and Midwifery Board of Australia (NMBA) as the regulatory authority. |
| 1.8 | Student impairment screening and management processes are in place and effective. |
| 1.9 | Admission and progression requirements and processes are fair, equitable and transparent. Applicants are informed of the following before accepting an offer of enrolment: a) Applicants that would be required by the NMBA to provide a formal English language skills test when applying for registration, must provide formal English language test results demonstrating they have achieved the NMBA specified level of English language skills, prior to commencing the program. b) NMBA requirements for registration as a registered nurse including, but not limited to, the registration standard on English language skills and the codes of conduct and ethics for nurses. |

- 1.10 Program progression policies prevent student access to professional experience placement where the student is deemed to be a potential risk to public safety.
- 1.11 Any multiple entry pathways for which students receive block credit or advanced standing (other than on an individual basis) meet Registered Nurse Accreditation Standards.

Standard 2. Governance

- 2.1 Robust academic governance arrangements are in place for the program of study; meeting all relevant jurisdictional regulatory requirements; or having equivalent mechanisms to assure the quality and integrity of the program of study a) current registration by the Tertiary Education Quality and Standards Agency (TEQSA) as an Australian university or other higher education provider b) Listing on the Australian Qualifications Framework (AQF) National Registry for the award of a bachelor's degree as a minimum.
- 2.2 The governance structure for the provider and the school conducting the program ensure academic oversight of the program and promotes high-quality teaching and learning experience for students and the competence of new graduates. The Head of Discipline is a registered nurse with the NMBA, without conditions on their registration relating to conduct, and holds a relevant post-graduate qualification.
- 2.3 Risks to the program, program outcomes and students are assessed and addressed; and the program has a primary focus on continually improving the quality of the teaching and learning experience for students and the ability of new graduates to achieve the Registered nurse standards for practice.
- 2.4 Quality improvement processes use valid and reliable student evaluations and other data, and internal and external academic and health professional peer review to continually improve the program.
- 2.5 There is relevant input to the design and management of the program from external representatives of the nursing profession including Aboriginal and Torres Strait Islander peoples and other relevant stakeholders.
- 2.6 Mechanisms exist for responding within the curriculum to contemporary developments in health professional education in a timely and effective manner.

[*https://www.anmac.org.au/sites/default/files/documents/rnasconsultationpaper2.pdf](https://www.anmac.org.au/sites/default/files/documents/rnasconsultationpaper2.pdf)

Standard 3. Program of Study

- 3.1 The curriculum document articulates the educational philosophy informing the program of study.
- 3.2 Program content reflects contemporary practices in health and education and responds to emerging trends including health informatics and digital health technologies and is based on research and other forms of evidence.
- 3.3 Learning outcomes ensure achievement of the Registered Nurse Standards for Practice, with regional, national and global health priorities and content related to mental health integrated throughout the program.
- 3.4 Principles of inter-professional learning and practice are embedded in the curriculum.
- 3.5 Cultural safety is integrated within the program and clearly articulated as required disciplinary learning outcomes.
- 3.6 The program has a discrete unit (taught from an Indigenous perspective) specifically addressing Aboriginal and Torres Strait Islander peoples' history, culture and health.

- 3.7 Teaching and learning environments, including simulated learning environments and professional experience placements, are sufficiently equipped and resourced to enable graduates to meet the standards for practice.
- 3.8 The program must include a minimum of 800 hours of quality professional experience placement, underpinned by firm contractual arrangements between education providers and placement providers.
- 3.9 The curriculum includes the development of research skills and promotes the discovery and implementation into practice of evidence from research and other sources.
- 3.10 The program has the human, physical and financial resources to sustain the quality of education that is required to facilitate the achievement of the Registered Nurse Standards for Practice.
- 3.11 All staff teaching into the program, including clinical supervisors, are suitably qualified, registered and experienced to deliver the units that they teach.

Standard 4 Student Experience

- 4.1 Program information provided to students is relevant, clear, transparent and accessible.
- 4.2 Students have access to effective grievance and appeals processes.
- 4.3 The provider identifies and supports the academic learning needs of students.
- 4.4 Students are informed of and have access to pastoral and/or personal support services provided by qualified personnel.
- 4.5 Students are represented on relevant advisory and decision-making committees.
- 4.6 Equity and diversity principles are observed and maintained in the student experience.
- 4.7 Appropriate resources are provided, monitored and regularly evaluated to ensure students are supported while on workplace experience.

Standard 5 Student Assessment

- 5.1 There is alignment between learning outcomes and assessment strategies.
- 5.2 Learning outcomes content and assessment are clearly mapped to the Registered Nurse Standards for Practice.
- 5.3 Validated assessment tools, modes of assessment, sampling and moderation are used to ensure quality in theoretical and clinical components of the program.
- 5.4 Assessments include the appraisal of competence in pharmacokinetics, pharmacodynamics and the quality use of medicines.
- 5.5 Both formative and summative assessment types and tasks are used across the program to enhance individual and collective learning as well as to inform student progression.
- 5.6 The education provider has ultimate accountability for assessing students while on professional experience placement.
- 5.7 Learning experiences undertaken outside Australia cannot exceed the equivalent of one semester, and must be equivalent in terms of subject objectives, learning outcomes and assessment.

*<https://www.anmac.org.au/sites/default/files/documents/rnasconsultationpaper2.pdf>

Box 13. Accreditation standards for nurse practitioner courses*

STANDARD 1: GOVERNANCE The education provider has established governance arrangements for the nurse practitioner program of study that develop and deliver a sustainable, high-quality education experience for students, to enable them to meet the Nurse Practitioner Standards for Practice.

STANDARD 2: CURRICULUM FRAMEWORK The education provider uses an appropriate and relevant philosophy to make explicit the assumptions about the nature of knowledge that informs the curriculum content and nature of the health service environment that the graduate will enter. In addition, the education provider makes explicit the educational theory that informs the design and delivery of sustainable processes for learning and teaching in the nurse practitioner program.

STANDARD 3: PROGRAM DEVELOPMENT AND STRUCTURE The program of study, developed in collaboration with key stakeholders, reflects current nurse practitioner practice and learning and teaching approaches; complies with the Australian Qualifications Framework for a Level 9 Master's Degree and has sufficient integrated professional practice to enable graduates to meet the Nurse Practitioner Standards for Practice and to function as a safe, autonomous and collaborative nurse practitioner by program completion.

STANDARD 4: PROGRAM CONTENT The program content delivered by the program provider comprehensively addresses the Nurse Practitioner Standards for Practice as well as existing and emerging national and regional health priorities across a range of health service delivery contexts.

STANDARD 5: STUDENT ASSESSMENT The curriculum incorporates a variety of approaches to assessment that suit the nature of the learning experience and robustly measure achievement of required learning outcomes. This includes a comprehensive summative assessment of student performance against the current Nurse Practitioner Standards for Practice.

STANDARD 6: STUDENTS The program provider's approach to attracting, enrolling, supporting and assessing students is underpinned by values of transparency, authenticity, equal opportunity and an appreciation of social and cultural diversity.

STANDARD 7: RESOURCES The program provider has adequate facilities, equipment and teaching resources, as well as staff who are qualified, capable and sufficient in number, to enable students to meet the Nurse Practitioner Standards for Practice.

STANDARD 8: MANAGEMENT OF INTEGRATED PROFESSIONAL PRACTICE The program provider ensures that every student is given supervised integrated professional practice in environments providing suitable learning and teaching opportunities and conditions for students to meet the Nurse Practitioner Standards for Practice.

STANDARD 9: QUALITY IMPROVEMENT AND RISK MANAGEMENT The program provider is able to assess and address risks to the program, its outcomes and students, and has a primary focus on continually improving the quality of the teaching and learning experience for students and the competence of graduates.

<https://www.anmac.org.au/standards-and-review/nurse-practitioner>



SECTION 3:

Becoming a Nurse: Knowing, Thinking, and Doing

Nothing becomes real till experienced.
—John Keats

Fortune favours the prepared mind.
—Louis Pasteur

Section 2 described the various types of nurses — their education, practice standards, and the quality assurance mechanisms designed to ensure they perform safely and effectively. Thus far, the emphasis has been on how the nursing education, training, and quality assurance systems are supposed to work. Section 3 uses stakeholder feedback and research to describe how the system is actually working and contains recommendations for some ways in which the educational preparation of nurses may be improved.

As implied by the title of this section, nurses need to be able to reflect and think critically about their practice. They must acquire specific practical skills and continue to learn and develop

throughout their careers. Experience is a vital part of learning; however, without adequate preparation, experience teaches students nothing. A high-quality education, which combines thinking with doing, and allows for career-long development, is what nurses want and the country deserves.

Australia has established a logical and coherent foundation to support high-quality nursing education. The structure rests on four pillars: The National Law (which sets out the social objectives of health care regulation), practice standards that serve as educational goals, accreditation standards designed to ensure that nursing education programs achieve these goals, and a registration regime to certify that nurses are fit to practice. Not one of the consultation participants or authors of written submissions questioned the logic or necessity for the structure underpinned by these four pillars. They directed their suggestions, criticisms, and elaborations at strengthening and enhancing the structure, not redesigning it.

As might be imagined, 1,100 participants in consultations each lasting five hours, produced hundreds of useful suggestions about how to improve nursing education. Written submissions added many more. Summarising these ideas is a formidable task. Fortunately, the comments, criticisms, and recommendations coalesce into a manageable number of themes: ensuring the safety of the public; the capabilities required of new nurses; the availability, quality, content, and length of clinical placements; the relationship between educational institutions and placement providers; the evolving nature of nursing practice; and the role of NPs. With a few digressions, Section 3 deals with all of these issues except the evolving nature of nursing and the role of NPs, which are covered in Section 5.

3.1 Protecting the public

The first objective of the National Law is “to protect the public by ensuring that health practitioners are suitably educated, competent, and ethical.”³⁵ The entire professional accreditation and registration edifice is designed to meet this objective.

Still, there are daily news stories documenting errors, neglect, and improper behaviour in the health care system, especially in aged care. Section 3.1 deals with several areas in which the public is clearly at risk and recommends how these risks could be mitigated.

3.1.1 Unregulated health workers

As noted in Section 2.1.1 of this report, assistants in nursing (AINs) work mainly in hospitals and aged care facilities under a variety of job titles (personal care workers, health care assistants, disability support workers, and many others). Although AINs are not explicitly mentioned in this review’s terms of reference, they carry out “nursing” tasks and their status was raised at many consultations. Although individual employers may specify educational and other prerequisites for AINs, there are no nationally mandated requirements for their education, experience, or English language proficiency. The “negative licensing” regime described in Section 2.1.1 allows AINs to be disciplined if their employer believes they present a risk to public safety, but first someone must make a complaint. Hiring untrained people and disciplining them when something goes wrong is a poor substitute for ensuring that health care workers are competent in the first place.³⁶

In July 2019, the Commonwealth Government’s Aged Care Quality and Safety Commission announced a set of quality standards for aged care facilities. One standard requires that “the workforce is competent and ...[has] the qualifications and knowledge to effectively perform their roles.”³⁷ With no definition of competence and no mandated qualifications for AINs, it is impossible to judge whether this standard is being met. How are supervisors supposed to delegate duties to AINs, when their capabilities and education are undefined? Numerous stakeholders have expressed their dismay that some of the most vulnerable people in the community are being looked after by staff whose education and expertise are not regulated.³⁸ News stories arising from the Royal Commission on Aged Care Quality and Safety documenting poor practice make it imperative that these calls be heeded.

“ The public should be able to rely on rigorous and transparent registration standards, codes of conduct, codes of ethics and standards for practice ... to regulate the work of assistants in nursing. ”

ANMF

In addition to ensuring public safety, a quality assurance regime could provide AINs with career paths (a recommendation of the Aged Care Workforce Taskforce).³⁹ For example, Edith Cowan University offers students the opportunity to acquire an AIN certificate in health care as a first step on an articulation pathway to becoming an RN.⁴⁰ Because better-educated health care workers produce superior health outcomes,⁴¹ stipulating educational requirements for AINs and providing them with an education pathway to improve their skills will improve the quality and safety of the health care system.

The most stringent option is to include AINs in the NRAS framework, but this is not the only possibility. Victoria has created an accreditation and registration scheme for disability workers (a type of AIN).⁴² The Victorian scheme could serve as a model for other states. It may also be possible for the Commonwealth to help develop an industry-run quality assurance regime. Whatever approach is taken, the goal is the same — to protect the public’s safety by ensuring that all health workers are competent and safe to practice.

Recommendation 1. To protect the public, assistants in nursing (whatever their job title) should have mandated education, English language, and probity requirements, which are accredited, assessed, and enforced by a robust quality-assurance regime.

3.1.2 Language, literacy, and numeracy

Mandated educational requirements for health workers are necessary to protect the public, but they are not sufficient. This section deals with a second significant risk to the public — poor language, literacy, and numeracy.

To practice safely, nurses must be able to understand and communicate with service users, their relatives, and other members of the health care team. Nurses also need to be able to read, understand, and create coherent medical records. For this reason, English language proficiency is one of the core registration imperatives of the National Law. Competency in English is also embedded in ANMAC’s accreditation standards, which stress the importance of ensuring that nurses are adequately prepared and thoroughly assessed before they provide care to the public.

Although many conditions, caveats, and rules apply, there are essentially two ways for prospective nurses to meet the English proficiency standard.⁴³ They can achieve a satisfactory score on a test of English competency, or they can demonstrate that they were educated to an acceptable level in an approved English-speaking country (Australia, USA, Canada, New Zealand, Ireland, South Africa). Both methods are assumed sufficient to demonstrate that a candidate for registration as a nurse has the English language skills necessary to practise safely. Unfortunately, this assumption may not be justified.

In consultations across the country, in regional areas and cities, nurses repeatedly cited examples of students they considered unsafe to practise because of their poor grasp of English. In many of the examples given, English was a student’s second language, but some students whose primary language was English were observed to struggle as well. Poor English is not only a problem for some nursing students; it also affects graduate nurses. A survey conducted by the Queensland Labour Economics Office found that a common reason for employers judging applicants unsuitable for nursing positions was their “poorly presented applications [and] inadequate ... communication.”⁴⁴ Problems with communication can also present problems in the workplace.⁴⁵

“ There are some things an employer is entitled to assume. [One is that] nurses are proficient in English. ”

Employer at Brisbane public consultation

Why should nurses whose education has been in English or who scored well on an examination of English language proficiency, have problems using English at work? There appear to be three possible answers to this question: the lack of validity of commonly used tests of English competency; the limited support provided by educational institutions to students for whom English is a second language; and the disappointingly poor literacy and numeracy skills of some graduates whose primary language is English. We look first at the tests of English competency.

For nurses educated abroad, NMBA accepts four tests to demonstrate mastery of English: The International English Language Testing System (IELTS), Pearson's English Language Test (PTE Academic), the Test of English as a Foreign Language (TOEFL), and the Occupational Test of English (OTE-Nursing). Using four different tests to assess English proficiency would be justified if the tests were equally valid measures of the language skills required by nurses in the workplace. However, their equality cannot be taken for granted.⁴⁶ The PTE, IELTS, and TOEFL are generic tests designed to measure how well international students cope with the academic English used in the average undergraduate course. They are valid for admission to a HEP, but they were not designed to assess English in the nursing workplace. Of the four tests accepted by NMBA to demonstrate English proficiency, the only one explicitly intended for nurses is the Occupational Test of English, Nursing (OTE-Nursing).

An excerpt from the OTE-Nursing reading test appears in Table 2. Candidates are given information in tabular form and then asked to answer questions about what they have read. For example, “What is the maximum dose of morphine per kilo of a patient's weight that can be given using the intra-muscular (IM) route?” The OTE-Nursing test also examines

speaking, listening, and writing. Judged by its content (face validity), the OTE-Nursing appears to be a more appropriate predictor of the English ability required by nurses than the other tests, but face validity does not always translate into predictive validity. Further research is required to determine which test is the best predictor nurses' communication skills in a clinical environment. Other professional boards operating under NRAS use similar tests, so this could be an area of cooperative research organised by AHPRA.

Recommendation 2. The NMBA (in association with AHPRA and other professional boards) should commission research comparing the validity of various English language proficiency tests for assessing nurses' language skills in a work environment. This research should form the evidence-base for choosing and implementing an appropriate test for registration purposes.

Some migrants and international students may achieve adequate scores on tests of English proficiency but still encounter communication difficulties when they are immersed in a hectic work environment such as a hospital ward. These students require support from qualified language learning specialists to help them learn how to apply their English language skills in their workplace. Although ANMAC requires student progress to be monitored and expects students to receive the support services they require, the review was informed that qualified language specialists are not always available to help students who need their assistance.⁴⁷

How about students whose primary language is English? Why should they be having difficulties in communication? The answer to these questions may be found in the Productivity Commission's recent report on the “demand-driven” system.⁴⁸

Recommendation 3. ANMAC should amend the evidence guide used for accreditation to include a mandatory report on the credentials and number of qualified English language experts employed to assist students to apply their English language skills and evidence that these experts are available to students who need assistance.

Table 2. Excerpt (reproduction) from OTE Reading Test⁴⁹

Drug Therapy Protocol:
Authorise Indigenous Health Worker (IHW) must consult Medical Officer (MO) or Nurse Practitioner (NP).
Scheduled Medicines Rural & Isolated Practice Registered Nurse may proceed.

Drug	Form	Strength	Route of Administration	Recommended dosage	Duration
Morphine	Ampoule	10 mg/mL	IM/SC	Adult only: 0.1–0.2 mg/kg to a max of 10mg	Stat Further doses on MO/NP order
			IV (IHW may not administer IV)	Adult only: Initial dose of 2 mg then 0.5–1 mg increments slowly, repeated every 3–5 minutes if required to a max. of 10 mg	
Use the lower end of dose range in patients ≥ 70 years. Provide Consumer Medicine Information: advise can cause nausea and vomiting, drowsiness. Respiratory depression is rare — if it should occur, give naloxone					

In 2009, the Commonwealth began to ease restrictions on the number of students that universities were permitted to enrol. In 2012, the government lifted quotas on all undergraduate courses except medicine. Universities could enrol as many students as they wished — aligning their admissions with student demand. Responding to forecasts that Australia was about to experience nursing shortages, universities increased nursing enrolments and completions dramatically.

(The validity of nursing workforce predictions is addressed in Section 5.) As may be seen in Figures 1 and 2, between 2009 and 2017 (the most recent year for which data are available), RN enrolments across all course years soared by 66%, and completions climbed 56%.⁵⁰ During the same period, the Australian population grew by 13%. In other words, the number of nursing graduates increased four times faster than the Australian population.

Figure 1. Registered nurse enrolments

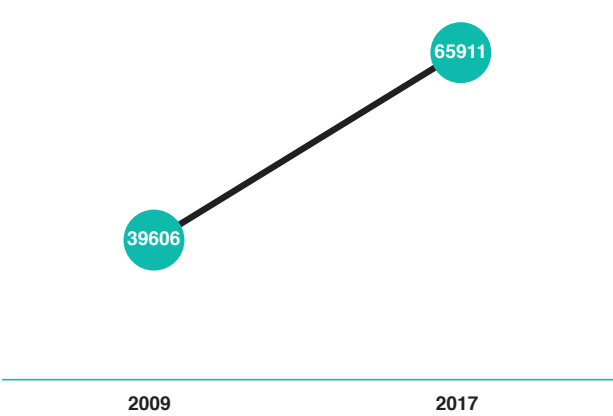
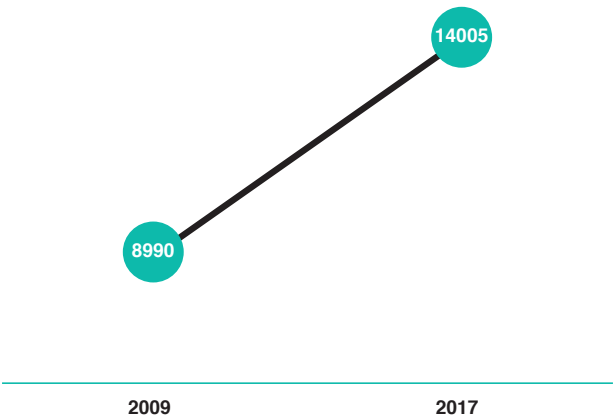


Figure 2. Registered nurse completions



The expansion of higher education in general, and nursing, in particular, opened higher education to students whose performance at school would not formerly have been good enough for them to gain admission to a HEP. Enrolling these students obligated HEPs to provide them with adequate instructional and learning support. Unfortunately, as the Productivity Commission report shows, not all students receive the attention they require.⁵¹ As noted earlier, some applicants fail to gain jobs because of their poorly prepared applications; at consultations, nurse managers complained that some students were unable to do simple arithmetic such as calculating drug dosages based on body weight. Overall, one of the most common comments made at review consultations (and in submissions) was the need to improve literacy and numeracy by raising the entry requirements for admission to nursing courses.

“Universities need to raise the ATAR for nursing.”

Participant at the Darwin Public Consultation

For many reasons, interfering with the way HEPs admit students is neither an effective nor desirable way of improving graduate literacy. HEPs should be free to choose students as they see fit and Australian Tertiary Admission Ranks (ATARS) are not fool-proof indicators of success in higher education. Students may have low ATAR scores because they are migrants still learning English, or they may have attended under-resourced schools. Some may have suffered from illness or family disruption. Given proper support, students whose abilities are not adequately reflected by their ATAR may thrive in their studies. The demand-driven system has flaws, but it has given many people with ambition and talent the opportunity to achieve their potential and make their full contribution to society.

Instead of trying to control who gains entry to a HEP, it is better to focus on the outcomes

of higher education. As an example, consider initial teacher education. Complaints from schools and education officials that some graduate teachers lacked literacy and numeracy skills, led to the creation of an online national examination — the Literacy and Numeracy Test for Initial Teacher Education Students (LANTITE).⁵² The content of the LANTITE was designed to reflect the Australian Core Skills Framework.⁵³ To pass the LANTITE, students must perform at a level equivalent to the top 30 per cent of the Australian adult population.

Figure 3. Sample LANTITE question

ONE HUNDRED BOXES

The weight of a box of stationery is 3.2 kilograms.

What is the weight of 100 such boxes?

_____ kilograms

(https://teacheredtest.acer.edu.au/files/Literacy_and_Numeracy_Test_for_Initial_Teacher_Education_students_-_Sample_Questions.pdf)

The LANTITE is not particularly difficult (see a sample question in Figure 3). Nevertheless, in a single year, around 10 per cent of prospective teachers fail the test.⁵⁴ Candidates can take the LANTITE multiple times, so the percentage that eventually passes is higher than 90 per cent. However, performance varies markedly across HEPs; failures are rare in some, while others have alarming high yearly failure rates.

Setting a literacy and numeracy standard for nurses and using an examination to ensure that the benchmark has been met, would make HEPs accountable for ensuring their graduates possess suitable levels of literacy and numeracy. Prerequisite examinations are not a radical idea. The University of Sydney already requires candidates to pass numeracy and literacy tests for admission to its Master of Nursing (Graduate-Entry) course.⁵⁵

“ We receive nursing students on placement from many universities. There are such differences in their literacy and numeracy skills, we can tell which university a student is enrolled in on day one. ”

**Participant at the
Alice Springs public consultation.**

Accountability is a normal part of life for all public institutions. Nevertheless, at review consultations, some academics strongly resisted the idea of an independent literacy and numeracy test. In its submission to this review, Universities Australia claimed that graduate nurses “have the basic skills, competencies and capabilities to safely and effectively do the job they were educated and trained for” because “without such knowledge and skills, they would not have been approved to pass their degree.” Unfortunately, this claim is not justified. HEPs have very different standards. Some appear ready to award teaching degrees to students who are unable to pass the LANTITE. Accountability in education, as in other domains, requires independent external evaluation.

All applicants for registration as a nurse should be required to demonstrate they have the necessary literacy and numeracy skills needed for safe practice. This requirement does not mean a new test must be invented. The “outcomes-based” assessment that NMBA intends to use to judge whether internationally educated nurses are suitable for registration (see Box 5) may also be used to assess domestic students. Fairness and equity demand that all nurses, not just those educated internationally, demonstrate they have a safe level of language proficiency. The use of outcomes-based assessments is covered in detail in Section 3.4.4.

Recommendation 4. NMBA should require all candidates for registration to undergo an independent assessment to demonstrate they have the literacy and numeracy skills required to practise safely.

3.2 Sunlight is the best disinfectant

The last section recommended using a measure of numeracy and literacy as a step toward meeting Objective 3 of the National Law — ensuring that nurses are safe to practice. However, numeracy and literacy are only the tips of a vast iceberg. ANMAC accredits and monitors 192 nursing courses offered by more than 100 education providers. Accrediting and tracking this large number of courses gives ANMAC unique insight into the quality of all levels and types of nursing education. During the course of its work, ANMAC uncovers instances of poor practice as well as examples of exceptional teaching programs. By disseminating information about good practices and warning educators about poor ones, ANMAC is in a matchless position to help improve the quality of nursing education and training.

ANMAC’s latest annual report notes that, as part of its accreditation and monitoring program, it uncovered nine major and 148 minor issues that required modifications to accredited programs of study last year. However, ANMAC’s report doesn’t say what those issues or modifications were.⁵⁶ Similarly, ANMAC reviewed 179 monitoring reports and 26 special reports but has not published any of them. Were there lessons learned from these reports, assessments, and reviews that could be applied more broadly? Were there instances of outstanding practice worth spreading throughout the education system? Almost certainly the answer to these questions is yes, but ANMAC does not make its findings publicly available. The institutions whose courses required “modifications” may have learned something about themselves, but other education providers, clinicians, and the public do not reap the benefit. To extract the full value out of the valuable knowledge it gathers about teaching and learning, ANMAC should make its findings accessible to everyone. A commitment to transparency would enhance the integrity of

ANMAC's quality assurance regime and, more importantly, improve the quality of nursing education across Australia.

A good example of information sharing is the publication of summary course monitoring reports by the Nursing and Midwifery Council of the UK (NMC).⁵⁷ These reports, which assess courses and providers against accreditation standards and key risks, allow prospective students, employers, and the general public to know which courses meet the criteria and which require improvement. The NMC also highlights instances of effective practice, which can be taken up by other providers. For example, this year's NMC annual report drew attention to a smartphone app developed by a team from the northwest of England. Among other innovations, the app gives nursing students a voice in the quality assurance process by allowing them to easily share their evaluation of a placement experience with their mentors, HEPs, and clinical managers.

With a commitment to transparency, ANMAC could host a website containing a wide range of information about all accredited courses including monitoring reports, entry requirements, fees, staff profiles, student support services, clinical partners, employment prospects of graduates, performance on independent examinations, and student evaluations. Such information would not only be of value to students but also to education researchers who wish to study the effectiveness of educational innovations.

Recommendation 5. To improve the quality of nursing education across the country, ANMAC should make accreditation and monitoring reports public. It should point out areas of poor practice and disseminate information about effective teaching techniques and initiatives. In a commitment to transparency, ANMAC should create a publicly accessible database, containing comparative information about all accredited nursing courses.

3.3 Reality shock: are graduate nurses ready for work?

As noted earlier in this report, harried clinical managers expect graduate nurses to “hit the ground running” on their first day at work. New nurses are often alarmed to discover that they are inadequately prepared to meet their managers' expectations. In a frequently cited 1974 book, Marlene Kramer called this collision between workplace expectations and nurses' capabilities “reality shock.”⁵⁸ Fast forward 45 years, and little has changed; new graduates still say their education did not adequately prepare them for work.^{59,60} Many feel “unprepared and overwhelmed” by the responsibilities they are expected to assume.⁶¹

The transition from an educational environment to the world of work presents a challenge for all professions. No one expects new doctors, dentists, or psychologists to be fully functional on their first day at work. Yet, nurses, whose decisions can have life and death consequences, are expected to be “work ready” after completing their initial education. Other health professions have well-understood arrangements to smooth the transition from schooling to work. Nurses require similar transition-to-practice programs. Some lucky ones get to participate in one, but many do not.

Work readiness was a lively topic at all the review consultations and the focus of many written submissions. It is also the subject of a research paper commissioned for this review (see companion paper in Appendix 3: *Fit for Purpose/Work Ready/Transition to Practice*). The range of comments and suggestions varied dramatically; many nurses offered examples of graduates they believed were not adequately prepared for work. On the other hand, some commentators denied that work-readiness is even an issue. For example, Universities Australia's submission stated, “Currently approved Bachelor of Nursing (BN) degrees ... adequately cover the range of nursing skills required for a newly qualified nurse to practice.”

The review received submissions from nursing organisations claiming that nursing education is inadequate because too little attention is devoted to their specialties. They prepared detailed submissions about why their areas deserve more time in the undergraduate curriculum. Their submissions are discussed in Section 5.

To ensure new nurses are ready for work, some employers called for the creation of an official list of competencies that new nurses should be expected to possess. Some submissions suggested increasing clinical placement hours while others recommended that an accredited transition-to-work program be made available to RNs perhaps by adding an extra year of education to the Bachelor of Nursing degree program. The following sections of this report address the issue of work readiness in more detail.

3.3.1 What can we expect from a graduate nurse?

As noted in Section 2.1.2, the EN training package does not stipulate how to teach students, but learning outcomes and assessment requirements are set down in precise detail. As a result, employers and the public know what capabilities ENs can reasonably be expected to possess. Employers have less information about the skills of RNs because every Bachelor of Nursing course is unique.⁶² This situation is unlikely to change under the proposed RN course accreditation standards.

“One of the main issues frequently highlighted by the private sector is the concern nursing graduates vary significantly in their practical experience on graduation and some are not ‘work ready’.”

Australian Private Hospitals Association

The accreditation standards require that “learning outcomes content and assessment are clearly mapped to the Registered Nurse

Standards.” Unfortunately, the RN standards do not specify learning outcomes in the same way as a training package, nor do they match the way nurses, themselves, describe their work. The standards are deliberately high-level and general (“ineffable” according to one sceptical commentator). Because the standards are abstract, HEPs can offer vastly different courses and still meet the criteria for accreditation. In effect, each HEP has been given permission to define “work readiness” as it sees fit.^{63,64}

“The skills a nursing graduate does or does not have varies widely and is largely dependent on where they completed their training.”

CRANApplus

To provide prospective employers with a more concrete idea of a graduate’s capabilities, the Australian Private Hospital Association and Catholic Health Australia have called for the development of a standard list of core skills or competencies required for a registered nurse starting work.⁶⁵ The Nursing and Midwifery Council (NMC) of the UK has developed such a list.⁶⁶ In fact, there are two lists annexed to the NMC’s proficiency standards. One contains the communication and relationship management skills required of a newly registered nurse while the other contains a list of procedures an RN must be able to perform at the point of registration.

The NMC’s communication skills list includes active listening, recognising and responding to verbal and non-verbal cues, using appropriate non-verbal communication, and writing accurate, clear, legible records. The procedures constitute a set of specific techniques, skills, and knowledge (see Table 3.)

Australian RN practice standards do not contain similar lists. This omission was deliberate. Many nurses consider lists of procedures and skills too prescriptive.⁶⁷ They fear that lists could lock current practices in place, thereby limiting future opportunities to adapt the scope of nursing practice to fit the

changing needs of society. At consultations, some nurses expressed the belief that person-centred care based on trust and open communication, respectful of individual needs, and delivered with compassion and empathy — the foundation on which Australian nursing rests — is incompatible with official lists of skills and procedures.

It is true that practice, especially at the RN level, requires much more than the ability to perform a set of procedures.⁶⁸ Communication skills, an understanding of work routines, and the ability to work in teams are also essential. Successful nurses are resilient and flexible, they empathise and relate to people from different backgrounds, and they have a good understanding of the organisational dynamics

of the health system in general and their workplace in particular. These soft skills are critical for success, but they do not replace the need to be clinically competent.⁶⁹

To do their jobs, surgeons must know how to sew up wounds, physiotherapists must know how to massage muscles, and optometrists must know how to put drops in eyes. Nurses also need to acquire certain skills and knowledge. The specific skills and knowledge nurses need to acquire will vary depending on whether they are RNs, ENs, or NPs and their chosen (or intended) area of practice. But wherever they work, there are things nurses need to know and skills they need to perform in order to provide person-centred care.

Table 3. Sample of the procedures UK registered nurses are expected to perform at the point of registration⁷⁰

Set up and manage routine electrocardiogram (ECG) investigations and interpret normal and commonly encountered abnormal traces
Manage and monitor blood component transfusions
Manage and interpret cardiac monitors, infusion pumps, blood glucose monitors and other monitoring devices
Accurately measure weight and height, calculate body mass index and recognise healthy ranges and clinically significant low/high readings
Undertake a whole-body systems assessment including respiratory, circulatory, neurological, musculoskeletal, cardiovascular and skin status
Undertake chest auscultation and interpret findings
Collect and observe sputum, urine, stool and vomit specimens, undertaking routine analysis and interpreting findings
Measure and interpret blood glucose levels
Recognise and respond to signs of all forms of abuse
Undertake, respond to and interpret neurological observations and assessments
Identify and respond to signs of deterioration and sepsis
Administer basic mental health first aid
Administer basic physical first aid
Recognise and manage seizures, choking and anaphylaxis, providing appropriate basic life support
Recognise and respond to challenging behaviour, providing appropriate safe holding and restraint

The NMC's lists of communication skills and procedures is an attempt to operationalise what person-centred care looks like in clinical settings. "In order to provide compassionate, evidence-based, person centred-care,"⁷¹ the NMC believes it necessary that nurses be able to undertake the procedures on the list.

Australian HEPs acknowledge the need for students to learn specific skills and knowledge. They send their students off to

placements armed with practice record books detailing the procedures and knowledge they are expected to acquire (see Figure 4 for a good example). The content of these books is determined individually by each HEP. Standard lists of knowledge and procedures would make nursing education more consistent across HEPs, reduce reality shock among new nurses, and help employers understand what to expect from graduates.

Figure 4. Reproduced sample from University of Notre Dame Professional Practice Record Book (reprinted with the permission of UND)

CLINICAL FACILITATOR/PRECEPTOR TO OBSERVE AND SIGN OFF ON MANDATORY SKILLS				
See the Clinical Psychomotor Skills Assessment Tools for Nurses text book	Skills — must achieve 2 mandatory plus a minimum of 16 others	Indicate level of performance I, S, A, M, D, NA	Print name	Signature
	Mandatory — Managing medication administration (NCAS tool) and see Medication administration — oral (p. 148)		Clinical Facilitator	
	Mandatory — Caring for a client requiring wound management (NCAS tool) and see Dry dressing technique (p. 372)		Clinical Facilitator	
	Aseptic non touch technique (p. 20)			
	Medication administration — subcutaneous injection (p. 165)			
	Medication administration — intramuscular injection (p. 165)			
	Medication administration — inhaled (p. 180)			
	Medication administration — eye drops or ointment (p. 156)			
	Medication administration — enteral (p. 175)			
	Medication administration — enema (p. 128)			
	Medication administration — otic (p. 161)			
	Administration of enteral nutrition (p. 103)			

In the course of their duties, nurses undertake numerous tasks; many are of a specialised nature. Including every possible skill and area of knowledge would be unworkable and undesirable. Australian undergraduate nursing education is designed to produce generalist RNs, not specialists. Any list included in the proficiency standard should be limited to the core foundational knowledge and skills nurses should possess, regardless of the setting in which they work.

Recommendation 6. NMBA practice standards should specify the core knowledge, skills, and procedural competence newly registered ENs and RNs require to function in any workplace setting.

Specifying the techniques and procedures nurses are expected to demonstrate is purposeless unless all nurses get the opportunity to learn them. Acquiring the necessary expertise is the subject of the next section.

3.4 Reducing reality shock

Arlene Walker and her colleagues reviewed 13 Australian studies of nurses' experiences of transition from study to professional practice.⁷²

They found ample evidence for the reality shock that comes from being assigned duties for which one feels unprepared. Many nurses reported receiving limited support to make the transition from education to practice. Not surprisingly, the transition to practice was also a major topic for discussion at every consultation and the subject of many written submissions to the review. Suggested improvements fall into seven categories:

1. Improve the quality and quantity of professional experience placements.
2. Increase the minimum number of clinical placement hours.
3. Formally examine the clinical expertise and "soft skills" of nurse graduates.
4. Create an accredited transition-to-work program.
5. Conduct more professional education in community and non-hospital settings.

6. Share Commonwealth health training funds more equitably.
7. Add additional material on a variety of subjects to nursing courses.

Although these suggestions were mainly tied to the education of RNs, some apply to ENs as well.⁷³ This section examines the first six of these suggestions; number seven will be covered later in this report.

3.4.1 Assuring the quality of professional experience placements

Educating a nurse involves both theory and practice. Theory prepares nurses to learn from their professional experiences, and practical work brings theory to life. By undertaking professional placements, students not only learn essential practice skills, they also acculturate to the social and professional practices of the nursing profession.

“The uncapped number of students is overwhelming the capacity of the service system to provide quality clinical placements.”

CATSINaM

Traditionally, professional experience has taken place primarily in hospitals. This is still true, although placements in community and other facilities are expanding. As a result of the massive increase in nursing students (see Section 3.1.2), finding placements for students has become an area of intense competition among HEPs. ANMAC's accreditation standards require RTOs and HEPs to provide evidence that they have arranged sufficient and relevant professional placements for all students. Unfortunately, this requirement is not always met. Participants in an NSW regional consultation reported that some students were unable to complete their courses on time because their HEPs did not provide the necessary number of placement hours. Also, desperate to fill placement hours, some HEPs seem to be ignoring the requirement that placement hours be "relevant." In its submission

to the review, ANMAC says it received “anecdotal reports of students undertaking professional experience placements in venues such as childcare centres and charity shops.” Students should not be spending valuable placement hours in venues where they are unlikely to receive expert supervision and gain relevant professional experiences.

In a break from the past, placement providers are taking advantage of their sellers’ advantage by charging HEPs for each student on placement. The scarcity of clinical placements is a particular problem for EN students; RTOs told the review that their students have a lower priority for places than Bachelor of Nursing students.

Students who do find placements report instances of inadequate supervision. They told the review of educators being rostered on to different shifts from the students they are supposed to be assisting. Students also say that clinical facilitation, sometimes outsourced to agencies, is less than ideal. For example, facilitators are not always familiar with the area in which students are currently working. In some instances, students have been left virtually unsupervised. Also, despite its status as a requirement for accreditation, inter-professional learning is given little time in curricula or placements.

“Clinical facilitators and educators are vital on all shifts...”

Australian College of Nursing

Many nurses reported difficulties in acting as mentors or preceptor (see Box 14 for more on these roles.) Lacking appropriate preparation, these nurses feel unprepared to teach. They also complain that clinical supervision is not counted in their workload, which means squeezing in supervision while also performing and giving priority to their regular duties. Although teaching is expected of RNs, many complained about the lack of monetary rewards or career advancement for nurses that take on the extra work.

Box 14. Preceptor, Mentor, Clinical Facilitator

A trained preceptor is assigned to a nurse for a specified period. The preceptor orients the nurse to the work environment, explains how processes and procedures work, demonstrates skills, and helps the nurse learn them. The preceptor also serves as a role model, teacher, and guide.

A mentor serves as a supportive friend and confidant to a nurse. A mentor relationship has no time limit. Like preceptors, mentors can teach and offer feedback, but their relationship is less formal and deeper than the preceptor-student relationship.

A clinical facilitator is a nurse who is also a teacher. Clinical facilitators provide education to EN and RN students as part of their practice placements.

In practice, there is a considerable blurring of these roles, especially preceptors and mentors. However, it is worth trying to make the distinction to ensure that nurses are properly prepared for whatever role they are assigned.

The sheer number of students participating in placements presents enormous logistical challenges. Nurses working in facilities that receive students from many HEPs find supervision especially difficult because they must cope with widely different expectations. Practice record books vary from one HEP to the next, not only in format but also in the experiences that students are expected to have on placement and the skills they are expected to learn. In essence, clinical staff feel they must create a bespoke program for each HEP.

“It is important to ensure that all preceptors and facilitators are sufficiently qualified.”

Catholic Health

In a regional venue, where some placements last only one week, a nurse told the review she was “drowning under wave after wave of new students” all expecting an experience tailored to their particular HEP’s requirements. Rural and regional placements offer considerable benefits to students (see Box 15). However, gaining these benefits requires placements that last longer than a week. Also, more thought and effort must go into preparing preceptors and adjusting their workloads, so they have the time to teach and monitor students.

Recognising the critical value of practice learning in preparing nurses, some health care providers have decided to establish registered training organisations and “grow their own” ENs.⁷⁴ Aligning aims, procedures, and practices is much easier when the same organisation controls both coursework and placements. The strategy does not work for RNs because degree-granting powers are difficult for organisations other than HEPs to obtain. As a consequence, RN education requires a partnership between educational institutions and clinical experience providers. To help build such partnerships, the Victorian Department of Health and Human Services has developed a Best Practice Clinical Learning Environment (BPCLE) framework to deliver high-quality, practical education.⁷⁵ The BPCLE provides guidance on how to establish a positive learning environment, sets out the required facilities, and expedites the development of effective relationships between education and health service providers. The BPCLE could provide a template for a national set of accreditation standards for clinical and professional education.

The current professional placement situation is untenable. ANMAC’s accreditation standards for placements are not always being met. A national accreditation system for placements would help to ensure that clinical educators are adequately prepared, establish a consistent set of learning outcomes for students, and specify the skill levels students are expected to achieve. The goal of accrediting placements is to make sure that every student acquires the skills and knowledge necessary for safe and effective practice.

The design of an accreditation regime for clinical placements will need careful consideration. Many placement providers do not have the resources or motivation to undertake such a costly and time-consuming exercise. Rather than seek accreditation, some may decide to stop providing placements. Realistically, HEPs, who already pay for clinical placements, would also have to organise and pay for their accreditation. Because some placement providers deal with multiple HEPs, there will be opportunities to share resources. Nevertheless, accrediting clinical placements will be costly, and HEPs may need access to extra resources to fund a clinical placement accreditation system.

The Australian government is currently refining a series of regular reports on the cost of teaching and research in different fields of higher education. Publication of these data will provide an evidence base from which to benchmark costs and assess the funding needs of nursing courses.⁷⁶

Recommendation 7. To ensure quality and equity, NMBA and ANMAC should consider the best way to implement an accreditation system for clinical placements. Only practice hours spent in accredited placements should count toward meeting practice hour requirements.

Recommendation 8. In view of increasing clinical placement charges and the cost of accrediting professional placements (see Recommendation 7), the Department of Education should review the costs and funding of undergraduate nursing education to ensure it is adequate to provide high-quality theoretical and clinical education.

An impediment to nurses gaining the full benefit of regional placements is cost. Medical students on regional placements have their travel and accommodation costs covered, whereas most nurses (and other health professionals) are expected to pay their own expenses. The Commonwealth’s Rural Health Multidisciplinary Training Program,⁷⁷ which provides funds for rural and remote training

prioritises medicine and dentistry. The program is currently under review. The review should examine how nursing education could gain the benefits of longer regional placements, interdisciplinary training, and travel subsidies. The use of training funds should be monitored by the Department of Health on an ongoing basis to ensure they are used to support nurses as well as other health professionals.

Box 15. Benefits of rural, remote, and regional placements

Because of the high burden of disease in regional and rural Australia, regional placements can be excellent learning environments. On any particular day, students are likely to encounter patients from a range of age groups with a variety of chronic and acute conditions. Regional placements also expose students to the social determinants of health, and the difficulties in providing care when staff and facilities are limited, and the geographical areas covered are large.

Because staff numbers are often small, regional placements provide many opportunities to interact with members of other health professions. Experience in interdisciplinary teamwork, one of ANMAC's accreditation requirements, is often easier to arrange in the regions than in metropolitan health facilities.

Under the new RN accreditation standards, students are expected to learn about digital health. These new technologies are used daily by rural and regional health services. As a result, students on rural placements get to learn how modern communication technology can be used to diagnose, treat, and prevent illness. Health professionals that spend time in regional or remote locations are more likely to remain or return to those areas after completing their studies. Thus, rural and regional placements are also vital recruiting tools for areas that find it difficult to fill nursing positions.

(Source: CRANA+)

Recommendation 9. The Department of Health should review the Rural Health Multidisciplinary Training Program guidelines to ensure that nursing education gains the benefits of longer regional placements, interdisciplinary training, and travel subsidies.

The quality of the education students receive from placements is a paramount concern, but there is a related issue that often arises. How many hours does it take for students to learn the knowledge and skills required to start work? This question is the focus of the next section.

3.4.2 How many placement hours are sufficient?

Although the minimum placement hours required for an EN Diploma course is 400 (less than three months of full-time work), the review received few recommendations to increase them. Despite New Zealand's requirement for 900 hours, stakeholders seem to believe that 400 placement hours is sufficient to prepare an EN to work in Australia.

In contrast to ENs, the number of placement hours required by the Bachelor of Nursing degree was the subject of extensive discussion at every consultation; it was also mentioned in submissions. At present, the number of placement hours required by a Bachelor of Nursing course varies across HEPs. Some expect only the minimum 800 hours while others ask for 840 or even 1,000 hours. In its submission to the review, the Australian Nursing and Midwifery Federation recommended the "minimum clinical placement hours for the Bachelor of Nursing be increased from 800 to 920 hours, an additional three weeks." At the review consultation held in Cairns, participants suggested that ANMAC should increase the minimum to 1,000 hours. Others have called for minimums of 1,100, 1,200 or 1,600 hours. Although the numbers differ, these various suggestions share two common features. They all consider the current 800-hour minimum to be insufficient, and none quote any research

evidence or offer any pedagogical rationale to support their recommended number.

As discussed in Section 3.4.1, when it comes to placement hours, quantity is not a guarantee of quality. Students may spend many hours on placements, but gain little if the venues are inappropriate, supervision poor, and durations short. Nevertheless, there is no doubt that the number of placement hours required for RN students in Australia is lower than in many other countries. New Zealand mandates a minimum of 1,100 placement hours for an RN while the UK requires a minimum of 2,300 placement hours — almost three times as many as Australia. Since the UK, New Zealand, and Australia all have similar Bachelor of Nursing degree courses, it appears that Australia has chosen to devote proportionately more time to course work and less to practice than other countries. (It is worth noting that the high number of placement hours in the UK are accommodated in part by their longer academic year.)

Ideally, the minimum number of placement hours should be based on research, not simply picked out of the air. However, given that many stakeholders called for an increase in placement hours and Australia's minimum requirements are lower than in other countries, it seems our placement-hour requirements may be too modest. Because some Australian HEPs already require 1,000 placement hours as part of their degree programs,⁷⁸ there appears to be room to fit more hours into the current Bachelor of Nursing course. To maximise the value of these hours, short rotations should be avoided, and the final year's placements should be planned as a bridge between education and work. A change to 1,000 hours would also bring us closer to New Zealand, thereby reinforcing the Trans-Tasman Mutual Recognition Agreement, which facilitates movement between Australia and New Zealand.

Whatever number of hours is required, we need a way of knowing whether the time spent on placement has produced graduates that are safe and ready to practice. Of course, this begs the question of what is meant by “safe

and ready to practice.” To be a useful concept, it must be defined in some objective way. For example, “safe and ready to practice” could be interpreted as proficiency in performing procedures — the UK approach. Alternatively, an acceptable score on a pre-registration examination could serve as a proxy for “safe and ready to practice.” The use of such an examination is discussed in the next section.

Recommendation 10. To ensure that all nurses are adequately prepared, ANMAC and the NMBA should increase the minimum number of placement hours required for the Bachelor of Nursing degree to 1,000 hours. ANMAC/NMBA should also increase the minimum number of placement hours required for EN diplomas and graduate-entry master's degree programs proportionately.

3.4.3 Independent pre-registration examinations

Australian nurses once had to pass standardised examinations to be registered. This requirement was discontinued when RN education moved to HEPs. However, tests remain common in other countries where nurses are educated in HEPs. One popular test is the multiple-choice, computer-administered, National Council Licensure Examination for Registered Nurses (NCLEX-RN).⁷⁹ This standardised examination is used throughout the USA and Canada; it is designed to assess the knowledge, skills, and abilities required by new nurses to provide safe and effective care.⁸⁰ (See Box 16 for a sample question.) The NCLEX-RN is criterion-referenced, which means there is no cap on the number of students who can pass.

In New Zealand, candidates for registration as a nurse must pass a multiple-choice Nursing Council State Final Examination. There are no grades other than pass or fail. Like the NCLEX-RN, the State Final Examination can be retaken several times. (Box 17 contains sample questions.) As may be seen from the sample questions, the examination covers numeracy as well as nursing knowledge.

Box 16. Illustrative question from the NCLEX-RN*

A patient is prescribed a calcium channel blocker to treat primary hypertension. When teaching the patient about the medication, which of these foods will the health care provider advise the patient to avoid?

- Grapefruit
- Milk
- Bananas
- Eggs

*Nurse Plus Academy <https://nurse.plus/nclex-practice-questions-physiological-integrity-test/>

A New Zealand nurse educator who spoke with the review described her country's pre-registration examinations as having two purposes: ensuring nurses are safe to practise and improving the quality of education. The first purpose is achieved by refusing registration to applicants who fail the examination. The second purpose — improving education — is achieved by providing feedback to HEPs about their students' performance. In this way, a HEP learns which areas are giving their students trouble. Based on this feedback, they can revise their curriculum or selection processes, thereby improving the quality of the education they offer.

When asked whether they favour a standardised pre-registration assessment similar to New Zealand's, the majority of consultation participants responded positively. However, some academics were opposed. They objected on numerous grounds: tests are expensive, time-consuming, produce anxiety, and distort teaching priorities by forcing academics to cover the topics examined. Those who made this last criticism were unable to identify the high priority topics, that are not included in the tests, which they would prefer to teach.

Box 17. Sample questions from the New Zealand Nursing Council State Final Examination*

Questions are about Tony Ross, aged 50 years, who is an arranged admission to the ward for a surgical investigation.

1. Tony is to have nothing to eat or drink prior to surgery. This is necessary to:
 - a) assist in the proper absorption of the anaesthetic.
 - b) prevent nausea and vomiting immediately after surgery.
 - c) avoid the danger of him aspirating stomach contents.
 - d) avoid incontinence during surgery.
2. Tony has one litre of fluid running intravenously every 12 hours. The drop factor is 60 drops per ml. How many drops per minute should be given?
 - a) 68 drops per minute.
 - b) 83 drops per minute.
 - c) 96 drops per minute.
 - d) 120 drops per minute

*NZ Nursing Council Information for Student Nurses <http://www.nursingcouncil.org.nz/Education/Information-for-student-nurses>

Some academics eschewed multiple-choice tests because they do not capture the full complexity of real-life nursing practice. Clinical problems are often complicated, but this does not mean that multiple-choice questions are a waste of time. It is unlikely that students who have trouble answering simple questions would be more successful with complex ones. Critical thinking in complex situations is essential to nursing, but critical thinking is impossible if nurses have a poor understanding of what they are supposed to be thinking about.⁸¹

Currently, Australia has no independent definition of what it means to say a nurse is safe to practice. HEPs each make their own judgement. Australia also has no standard

list of procedures that graduate nurses are expected to know how to perform, and there is no independently administered pre-registration examination. There are practice standards, of course, but no required independent assessment for measuring whether a nurse meets them. Australian doctors must pass examinations to be vocationally registered. Other health professions — psychology, physiotherapy, pharmacy — use examinations to assess whether their practitioners are safe to practice, but nursing does not. However, this is going to change next year.

As noted in Box 5, NMBA intends to use an “outcomes-based” assessment to judge whether internationally educated nurses are suitable for registration. NMBA’s evaluation will include a computer-based multiple-choice cognitive assessment (similar to the NCLEX-RN) and an objective structured behavioural examination. The latter will assess the “behavioural skills” of internationally educated nurses. It seems anomalous to adopt an outcomes-based approach to assess the suitability of internationally educated nurses while using an input-based approach (accrediting courses) to judge domestic graduates. As discussed in Section 3.2.1 in regard to literacy and numeracy, depending on HEPs to perform their own assessments and certify the readiness of their students ignores the widely different standards held by different institutions.

Recommendation 4 called for independent assessments of literacy and numeracy to be administered to all candidates for registration no matter where they studied. The cognitive test planned for international students could also serve this purpose. Assessing all graduates — international and domestic — using the same outcome measures would be fair and equitable. Test results would provide vital insights into the strengths of Australian nursing education and also reveal areas that need improvement. Test findings could be fed back to educational institutions and be used by them to raise the quality of nursing education nationally.

Recommendation 11. The outcomes-based cognitive and behavioural assessments that will be used to determine whether internationally educated nurses are safe to practise in Australia should be used to serve the same purpose for domestic graduates.

3.4.4 Extending the Bachelor of Nursing degree: adding years versus articulation

Stakeholders — at consultations and in their submissions — have suggested that the current three-year Bachelor of Nursing course is too short to provide the education required for safe and effective practice. They believe an extra year of study is needed to give students more practice hours.

For example, the Australian College of Nursing argues for:

Transitioning from a theoretical three years, to a four-year degree with clinical focus. The fourth year would provide that additional year of practical experience in all settings where care is delivered. This will enable students to consolidate their knowledge and skills in an equitable manner, learning through clinical practicums that monitor and evaluate their progress.

Lengthening the course by a year would also provide space to include content currently curtailed by time limits. According to the Council of Deans of Nursing and Midwifery:

Further time is required to enable educators to fully explore, and expand on communication, professional awareness, legal and ethics, humanities, research and science. A number of these areas have been diluted to accommodate the mandated content requirements, to the detriment of overall knowledge development.

Meeting the needs of specialty areas and preparing nurses for the complex conditions of the future may require a longer course.

(Section 5 of this report discusses the additional education that nurses will require in the future.) Although it was not specifically mentioned in submissions or consultations, graduate-entry master's courses may also need to be lengthened to accommodate more material and clinical experience.

There are several different ways to extend the length of the RN degree course. One is to fit more teaching into the academic year. Most HEPs teach two 13-week semesters per year. Although examinations add a few more weeks, the average HEP teaches for little more than six months of the year. One way to increase teaching time would be to lengthen the academic calendar. Longer academic years are standard for most medical and dental courses, which run from January to November with only short breaks during the year. Some HEPs do the same for nursing; they make use of an extended academic year to offer a three-year bachelor's degree in two years.⁸²

The second way to extend the course would be to add an extra year or semester. For example, Curtin University offers a 3.5-year course.⁸³ Given that a 3.5-year Bachelor of Nursing course exists, it seems that HEPs have the flexibility to lengthen the nursing course if they wish to do so. Of course, adding a semester or year to the Bachelor of Nursing will have financial implications for HEPs and also for students who may be charged additional fees and have their entry into the paid workforce delayed. Instead of earning a salary, they will be accumulating an additional semester or year of tuition debt.

Costs are a significant factor in deciding whether to lengthen the course, but they are not the only consideration. It is also crucial to take pedagogical issues into account. If the primary purpose of adding extra time to the course is to include more topics in the curriculum, then it makes sense to extend the academic year. On the other hand, if the main focus of the extra time is to smooth the transition from a HEP to work, then it

seems more appropriate to add an internship or transition-to-practice program after the course. (See Section 3.4.5.)

Several submissions recommended increasing the amount of time spent studying by requiring all nursing students to begin their education with an EN diploma and then articulate to the RN degree. Given that HEPs generally grant one year's course credit to those who complete an 18-month to 2-year EN diploma, requiring everyone to start with a diploma would add 6 to 12 months to the total time needed to earn a Bachelor of Nursing degree. One benefit of using articulation to extend teaching time is that students would be eligible to start earning money once they completed their EN diplomas. Instead of foregoing income, ENs could start to practise and finish their RN studies part-time. Those who decide not to continue with RN education will still have a credential to fall back on.

As discussed in Section 2.1.7, the EN to RN transfer route is already available and taken up by many students. However, there are difficulties associated with making it a universal requirement. HEPs are not involved in the planning or delivery of the EN diploma, and no attempt has been made to coordinate the diploma course with the RN degree course. As a result, diploma subjects are not direct substitutes for degree subjects. Differences in teaching styles, admission standards, and the level of academic work between vocational education and HEPs make the articulation pathway a transitional challenge for many students. The EN course diploma is a level 5 credential on the AQF whereas the bachelor's degree is level 7. Moving from the diploma to the second year of a degree course is often an insurmountable jump for students who have not been academically prepared. This is why ENs who articulate to RN courses have higher attrition rates than students with no previous nursing experience.⁸⁴

In its submission to the review, ANMAC suggested a different articulation path:

In order to prepare the future workforce to meet service needs and to address the effectiveness of the current pathway for enrolled nurse to registered nurse, ANMAC believes the EN qualification should be delivered in a higher education institution at an AQF level 6 (associate degree). This would increase the academic learning level and facilitate transition to the AQF level 7 bachelor's degree.

An associate degree is the same AQF level as the EN advanced diploma which has seen a significant fall-off in enrolments in recent years.⁸⁵ Thus, ENs that complete an associate degree would be educated to a higher level than most current ENs. Because they are both offered by HEPs, the associate degree and bachelor's degree could be coordinated from the start. Indeed, it would be possible to nest an associate degree within a four-year Bachelor of Nursing degree.

After completion of the first two years, students would receive their associate degree. After two more full-time years of study, they would receive their bachelor's degree. (This is the education model adopted by the UK for their Nursing Associates.) Students who wish to seek employment after earning their associate degree could finish their RN study part-time. The ability to earn a living while studying would help compensate students for the additional tuition fees they would have to pay for a longer course. Of course, some students may elect to end their studies after two years and pursue careers as ENs.

Moving the EN course from the VET sector to higher education would doubtless provoke resistance from many quarters. It may also be undesirable for equity reasons. It may cost students more, and it may limit diversity. VET providers and HEPs draw their students from different populations. Articulation from certificates to diplomas, a way of widening participation, would be lost. (See Section 4.2.2 for a more detailed discussion of increasing diversity through articulation.)

The amount of knowledge necessary for nursing practice today is greater than the level required 30 years ago, and it is reasonable to expect that educational requirements for nurses will continue to increase in the future (see Section 5). It is likely that a longer course will eventually be necessary. When that happens, a bachelor's degree with a nested associate degree is probably the best option. It would certainly produce better coordination between EN and RN education.

Recommendation 12. As RNs take on increasing responsibility for complex care, it is likely that three years of higher education will be insufficient to prepare the nurse of the future. Working with NMBA, ANMAC, the Commonwealth education department, and other stakeholders, HEPs should explore ways to extend nursing education, including the option of nesting an associate degree in a four-year bachelor's degree.

3.4.5 Standards for transition-to-practice programs

In her famous book, *From Novice to Expert: Excellence and Power in Clinical Nursing*,⁸⁶ Patricia Benner describes how nursing expertise develops through five stages from novice to expert. In Benner's conception, experience is the essential ingredient in becoming an expert, but not all experience is equally valuable. In 1999, Ida Bjork and Marit Kirkevold published an often-cited longitudinal study of skill development among beginning nurses.⁸⁷ Bjork and Kirkevold videotaped newly graduated nurses performing the same procedures three times over three-month intervals. At the outset, all of the new nurses were hesitant and slow, and some were even dangerous:

During wound dressing, nurses did not always bring the correct equipment and seldom washed their hands in the patient's room. They fumbled ... bandages were contaminated frequently during opening and gloves were not taken off before handling clean bandages.

Over the next year, this group of nurses had many opportunities to perform the same task. They worked faster, and they all rated themselves as much improved. Unfortunately, even after nine months, nurses continued to make the same mistakes they made as beginners. Some skipped handwashing before dressing a surgical wound while:

[Others] kept their gloves on after removing soiled bandages, holding on to sutures, pulling the drainage tube, and removing blood clots. The whole environment was in danger of contamination as they continued to handle clean bandages with their gloves on...

According to Bjork and Kirkevold, the nurses did not improve because they did not have opportunities for feedback or reflection. Senior staff assumed that new nurses either knew what to do or they would ask for help if required. Neither assumption was justified. The lesson is clear; as Pasteur famously noted, experience alone is not sufficient to produce expertise. New nurses also need to be guided, advised, and mentored. The best way to do this is through a transition-to-practice program (TTP).

A TTP (sometimes known as a “residency” in North America) is aimed at helping nurses adjust to their new professional roles. It not only offers new nurses the opportunity to hone their skills, but it also allows them to acculturate to their new profession. TTPs teach nurses how to establish priorities and allocate their time as well as how to communicate with patients, family members, colleagues, and other health professionals. A considerable body of research has shown that TTPs reduce turnover and work stress while improving patient safety and enhancing job satisfaction.⁸⁸ In Australia, public and private hospitals, as well as other health providers, offer some form of TTP. Unfortunately, these programs cannot accommodate all graduates.⁸⁹ Those who miss out may find themselves in the same situation as the nurses studied by Bjork and Kirkevold; they may believe their practice is improving when it is not.

At present, TTPs are mainly available in hospitals, where most graduates work. However, as more nurses take positions in community settings, aged care services, and mental health facilities, non-hospital based TTPs will be required as well. A carefully planned set of experiences could help nurses make better-informed career decisions. For example, in its submission to the review, the Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM) recommended:

Quality ... clinical placements ... to enable focused 6 months stints in rural health, mental health, aged care, emergency care, alcohol and drugs, palliative care and ... particularly Aboriginal and/or Torres Strait Islander health. This ... would enable more clarity around the standard set of skills that a student nurse must graduate with if they were to go into these nursing areas.

TTPs vary from one provider to the next; there is no standard model for their length, the amount of supervision provided, the specific topics covered, or the qualifications of a mentor or preceptor. To help encourage good practice, state governments, private health networks, and other organisations have established requirements for TTPs. CATSINaM has also created a model cadetship and TTP aimed at Indigenous nurses.⁹⁰ These are worthwhile initiatives, but they need to be supported by research. Currently, it is difficult to identify best practice because TTP evaluations have mainly focused on participant satisfaction rather than value for money, staff turnover, or patient safety. Although there are standardised tools for assessing clinical competence, some developed in Australia, they are rarely used to evaluate TTP outcomes. (For more on clinical outcome measures, see the companion paper, *Clinical Skills Development*, in Appendix 3.)

In addition to employer-based TTPs, some countries have established standardised national programs. An excellent example is Scotland’s Flying Start.⁹¹ It is a year-long,

web-based, TTP designed to help graduates transition from students to “confident and capable” health professionals. Completion of the TTP is a requirement for all nurses in whatever setting they work. Flying Start has a set of core modules, but it is designed to be tailored to the needs of different workplaces. A similar national web-based program would be equally useful in Australia, especially in the regions. Rural and remote health facilities are often reluctant to employ newly qualified nurses because they are too small to offer graduates a comprehensive TTP. They might be more willing to hire new graduates if a national online TTP was available.

“Many stakeholders have expressed a view that mandatory transition to practice graduate programs or internship year would facilitate the transition from student to registered health professional. This would be beneficial to new graduates and the public alike.”

ANMAC

Given the benefits of TTPs, they should be a requirement for all new ENs and RNs no matter where they work — in acute settings or elsewhere in the health system. It may seem odd that this review is recommending both independent examinations of nurses before registration and TTPs. If nurses pass the national examination, does this not demonstrate they have the capabilities required for independent practice? The answer is no. Most countries that require registration examinations also have TTPs. The registration examination tests knowledge and skills. The purpose of a TTP is to launch novices on the road to professionalism. The end product of a TTP is not just a technically skilled nurse but a confident and resilient one.

Recommendation 13. NMBA and ANMAC should establish a national web-based TTP. The TTP should be flexible enough to be tailored to the individual needs and circumstances of different workplaces. Completing this TTP should be a requirement for all nurses in their first year of work.



SECTION 4:

Increasing Diversity, Inclusion, and Opportunity in Nursing

“Every woman is a nurse...men have no place in nursing except where physical strength is needed.”
—Florence Nightingale

Florence Nightingale believed that women are naturally nurturing and caring whereas men lack empathy and their hands are “not fitted to touch, bathe and dress wounded limbs.”⁹² Not surprisingly, when she established her nursing schools, she excluded men.⁹³ As far as Nightingale was concerned, men were necessary only when physical strength was required. In her time, this meant men worked mainly in asylums for the mentally ill and performed tasks requiring heavy lifting. She reserved patient-centred nursing for women.

Nightingale's views set the stage for a feminised nursing profession, which was reinforced by job titles such as "matron," uniforms that mimicked nuns' habits, and references to nursing "sisters." Even today, despite changing social attitudes to gender, only 12 per cent of Australia's nurses are male.⁹⁴ This percentage is not likely to change soon because males make up less than 14 per cent of current nursing students, many of whom will not complete their studies.^{95,96} Australia is not unique in having few males in nursing. In other industrialised countries, the percentage of males in nursing is even lower than in Australia.⁹⁷ The absence of men has ramifications for recruiting new nurses. At a time when some nursing jobs are difficult to fill, almost half of the general population is not in the recruiting pool.

Men are not the only social group under-represented in nursing. About one-third of nurses were born abroad,⁹⁸ but the vast majority come from the UK and New Zealand.⁹⁹ In comparison to their number in the general population, Asian, African, and other migrant groups are under-represented, and only around one per cent of nurses are Aboriginal or Torres Strait Islanders.¹⁰⁰ Nurses with disabilities are also rare.¹⁰¹ Put simply, the nursing profession does not reflect the diversity of modern Australia.

Why does this matter? The simple answer is that an inclusive nursing workforce produces better health outcomes. As nurses know all too well, a patient's health depends on more than the technical expertise of a surgeon or the potency of a drug. Close interaction with a nurse with whom a patient identifies, who speaks the same language and understands the patient's cultural background, can make all the difference between treatment success and failure.

A diverse nursing workforce can also help reduce the health disparities that exist between the majority of Australians and some minority groups. Because they have lived experience of the beliefs and customs of their group, minority group nurses can provide valuable advice about culturally relevant factors that may

affect treatment and recovery. Diversity also improves workplace creativity. In contrast to the "groupthink" that often affects homogenous workplaces, diverse health care teams containing a range of different viewpoints, are more likely to yield new and innovative ideas. Seeking nurses from all parts of society expands the employment pool and increases the chances of attracting the best candidates. Widening participation in nursing would also reduce Australia's reliance on international recruits.

Section 4 focuses on creating a workforce that mirrors the increasingly diverse Australian population. (For a detailed review of the relevant literature, see the companion paper, *Nursing as a Career Choice*, which is Appendix 3 of this report.)

4.1 Barriers to recruiting nurses from under-represented social groups

This section briefly reviews the social, economic, and educational barriers to recruiting nurses from under-represented social groups. The discussion begins with the challenges of recruiting males into nursing.

“The primary reason for our members to become a nurse is to give back to their community and to contribute to good health outcomes.”

Congress of Aboriginal and Torres Strait Islander Nurses and Midwives

4.1.1 Difficulties finding men who dare to care

The word most often associated with nursing is "caring."¹⁰² When asked why they chose careers in nursing, men, women, migrants, Indigenous people, and members of ethnic minorities all say they had a desire to help others.^{103,104} Caring for others is a laudable motive for choosing a career, but opinion polls

show the general community views caring as a “feminine” trait.¹⁰⁵ This perception creates an obstacle to recruiting men, who feel that nursing is “unmanly.” Friends and family members often reinforce this perception.

Both women and men consider “feminine” occupations such as nursing to be less prestigious and attractive than male-dominated ones. Over the last 20 years, traditionally male-dominated professions such as medicine, dentistry, and psychology have seen a marked increase in female participation. In contrast, despite many calls to increase the number of males in nursing, the percentage of male nurses has hardly grown.

Nursing’s association with femininity is the most important reason that few men choose to enter the profession, but it is not the only one. In their review of the literature on men in nursing, Brent MacWilliams and his colleagues identified more than a dozen factors that either keep men from pursuing a career in nursing or cause them to leave nursing after a short time.¹⁰⁶ They found that the exclusion of men from nursing has its origins in adolescence. For boys thinking about how to spend their lives, there are few books, movies, or television shows featuring men in nursing. When the media does depict men working as nurses, they are often targets of ridicule (as in the film *Meet the Fockers*). A tendency to refer to all nurses as “she,” a lack of male nurse role models, and guidance counsellors that fail to recommend nursing to boys, all conspire against males choosing nursing as a career.

As they reach the end of schooling and start thinking about tertiary study, men who are interested in a career helping others are often unaware of the opportunities offered by nursing. One nursing student who spoke with the review initially planned to become a paramedic because he saw the role as an exciting and glamorous way to help people. (It is probably not coincidental that most paramedics are males.)¹⁰⁷ After discussing his career plans with family and friends who were familiar with nursing, the student became aware of the nursing profession’s potential to

also be exciting and rewarding. This student’s story is not unusual; many men who take up nursing have friends or relatives who are nurses. The advice and encouragement of these mentors help men see beyond cultural stereotypes.¹⁰⁸

Even after beginning nursing study, men continue to meet barriers to becoming nurses. Male mentors are rare, and male students report feeling unwelcome on clinical placements, particularly in “female” areas such as obstetrics. The social isolation of being a male student in a class full of women is a lonely experience for some males, which may be why the attrition rate of male nursing students is higher than for females.¹⁰⁹

Males are also more likely to leave the profession than females. For those that remain in nursing, stress and social isolation can take a toll on mental health. A recent study found alarmingly high suicide rates among nurses, particularly males whose suicide rate was more than twice that of female nurses.¹¹⁰

Men seem to fare better in graduate-entry master’s courses, where their relative numbers are higher and their commitment to nursing reflects a more mature judgement.¹¹¹ Graduate-entry males are also more likely to stick with nursing as a career than those who entered the profession directly from an undergraduate course. Unfortunately, the government subsidises relatively few masters places, which means graduate-entry courses may require students to take on high levels of student debt.

4.1.2 Challenges to recruiting indigenous nurses

Although numbers are increasing, Aboriginal and Torres Strait Islander students make up only a little over one per cent of higher education enrolments despite comprising three per cent of the population.¹¹² Around 20 per cent of Indigenous students are studying health-related degrees, but many fail to complete their course.¹¹³ Poor school

preparation, a lack of experience with tertiary study, a paucity of role models, and financial pressures are all impediments to the successful completion of their studies.¹¹⁴ The CATSINaM submission to the review highlighted science education as a particular area in which many Indigenous students enter tertiary education at a distinct disadvantage.

Edward Gorman, an Indigenous man from the north-east coast of Australia, wrote a first-person account of his experiences of becoming a nurse.¹¹⁵ Like many Indigenous students, Gorman was the first in his family to undertake tertiary studies. With little exposure to higher education, Indigenous students and their families often misunderstand the responsibilities and obligations of higher education students. Also, like many Indigenous students, Gorman was older than other students because he delayed the start of his studies until he could accumulate sufficient funds to sustain him.

Perhaps the most poignant part of Gorman's story was his gradual realisation that in addition to his responsibilities as a student, other students and academic staff expected him to serve as a representative for all Indigenous people:

When I identify myself as Aboriginal, people assume I am well informed regarding Indigenous issues. Being expected to represent an entire group of people may act as a barrier for Indigenous students communicating their experiences. While studying Indigenous content has cultivated my knowledge, I am not an expert as there is no universal experience.

4.1.3 Barriers to other under-represented groups

As described in Section 3.1.2, high-level English language skills are required to ensure that nurses can practice safely. This requirement can serve as a barrier to new migrants for whom English is a second language. Assisting students to improve their

reading, writing, and communication skills is necessary both to meet safety standards and to provide students with the confidence required to pursue nursing as a career. Given sufficient instruction and support, students from non-English speaking backgrounds can complete their courses and become competent nurses.¹¹⁶

There are no detailed statistics on nurses with disabilities, but the available evidence suggests that more students with disabilities are studying in HEPs today than in the past.¹¹⁷ Some nurses are reluctant to take the time to engage with these students, perhaps because they believe such students will experience difficulty performing nursing tasks. This may be why students from under-represented backgrounds perceive nurse educators as biased against them.¹¹⁸

4.2 Breaking down the barriers

Enrolments in nursing courses have skyrocketed over the last ten years. However, nursing's feminine stereotype creates a significant impediment to recruiting men. At the same time, the requirement for good language skills, the increasing complexity of nursing science, and a lack of minority group role models make it difficult to widen participation to other under-represented groups. At a time when women are expanding their career horizons (more than half of medical students and 80 per cent of veterinary medicine students are now female),¹¹⁹ nursing may soon find it difficult to attract women as well as men.

“The nursing profession's sustainability for the future rests with its ability to attract and retain a diverse nursing workforce.”

Teresa Carnevale

Interventions to widen participation in nursing must address the reasons why men, Indigenous people, and minorities are under-represented:

- nursing's perceived occupational status;
- the perception that nursing is for females;
- a lack of male, indigenous, and minority group role models;
- insufficient academic preparation of minority group members (especially in science);
- inadequate language skills; and
- social isolation in the classroom and clinic.

In the past, addressing these issues has mainly been the job of educational institutions, but the responsibility is not solely theirs. Widening participation in nursing will require nursing organisations, employers, and the government to join in as well.

4.2.1 Raising the esteem of nursing

Nursing Now is part of a three-year global campaign run in collaboration with the World Health Organisation and the International Council of Nurses.¹²⁰ The five main objectives of the campaign are:

1. Universal health coverage — ensuring quality health care for everyone
2. Evidence of impact — building up evidence of the contributions of the profession
3. Leadership and development — supporting nurses as leaders in policy and practice
4. Sustainable development goals — ensuring health, gender equality, and economic growth
5. Sharing effective practice — disseminating and improving access to collections of effective practice.

“Caring” is not a gender-dependent category.

Australian College of Nursing

By joining in Nursing Now initiatives, educational institutions, nursing organisations, and the government would help to raise the esteem of the nursing profession. They may

also wish to join the Australian College of Nursing's proposed campaign to recruit men to nursing. The aims of the campaign are to:

1. Increase the number of men entering the nursing profession after school as their first profession;
2. Meet the predicted shortfall of nursing workforce demand;
3. Remove the stigma that nursing is a profession for women only;
4. Encourage men to work in areas of nursing outside of critical care, mental health and administration/management;
5. Retain men in nursing;
6. Understand the issues faced by men entering and staying in the nursing profession; and
7. Send an overarching message to the community that it's ok for men to care.¹²¹

Public campaigns, supported by strategic initiatives and outcome measures, are useful first steps, but raising the esteem of nursing and increasing the number of men in the profession is not something that will happen because of a public relations campaign, not even a world-wide one. Challenging outdated stereotypes about nurses and raising the status of the profession requires a broad-based ongoing movement and the support of a wide range of organisations. It often takes an entire generation for public opinion to change.

Education providers would certainly have to get on board. Because it is in their interest to increase the diversity of their future workforce, employers, both public and private should also join in. A sustainable nursing workforce is essential to public health, so federal and state health departments should play a leading role in supporting this effort to educate the public.

Messages should confront negative stereotypes and replace them with more realistic pictures of what nurses do, and who they are. HEPs, nursing organisations, employers, and the government should target their messages to specific audiences (school students, men, Indigenous communities, ethnic

minorities, rural and regional residents, and people with disabilities.) Successful nursing role models (male, Indigenous, ethnic) could serve as “ambassadors” to help educate the public about the opportunities provided by nursing. The ultimate goal is to portray nursing as a “thinking” profession that combines science with practice — a career open to all Australians whatever their background or gender.

Changing attitudes will require funding; the federal and state governments are the most appropriate source. Governments should not view such a contribution as just another cost, but as an investment in the future health of all Australians. Like any investment, funding will require clear-cut strategies and robust outcome measures to ensure that taxpayers are receiving value for money.

Recommendation 14. The Commonwealth Department of Health should fund a national campaign designed to attract under-represented groups to nursing. NNMEAN should oversee the campaign and ensure that key stakeholders are engaged in its development and conduct.

4.2.2 Using articulation to widen participation

To ensure a sustainable workforce, the Aged Care Workforce Taskforce recommended the creation of new career pathways for the health professionals.¹²² One way to create these pathways is through the articulation of education credentials. Recommendation 1 of this report noted that an important benefit of creating a quality assurance regime for AINs is the opportunity to provide them with career paths. Acquiring a certificate in health care (or similar credential) could be the first step on an articulation pathway to becoming an EN or even an RN. (As noted in Section 3.1.1, Edith Cowan University already has a pathway which begins with certificate and proceeds to a bachelor’s degree.) Because better-educated health care workers produce superior health outcomes,¹²³ providing health

workers with education pathways to improve their skills improves the quality of the whole health care system.

Because VET students and higher education students come from different populations, articulation is a powerful strategy for widening participation. VET providers have less rigorous admission requirements than HEPs, many are located in the regions, and their diploma courses are shorter than degree courses. For these reasons, VET courses are accessible to students whose schools were under-resourced, whose education suffered disruption for health or family reasons, or who live in regional locations far from HEPs.

Because VET courses are shorter than degree courses, students who complete a certificate or diploma can join the workforce sooner than HEP students. The need to start earning money is common among VET students whose family backgrounds are generally less wealthy than those of higher education students. Once they are working, these students can choose to articulate to Bachelor of Nursing degrees by studying part-time.

An articulation pathway that begins with certificates for AINs flows on to the EN diploma, and ultimately to RN courses would attract students from populations currently under-represented in nursing. The EN to RN pathway already exists. Most HEPs award one year’s credit toward the Bachelor of Nursing students to students who complete the EN diploma. HEPs that do not currently grant credit to students who complete an EN diploma should consider the social benefits of revising their articulation policies.

Although ENs perform essential jobs, and many are happy to spend their career in an EN position, others are motivated to continue their studies and become RNs. To encourage them, some HEPs actively recruit ENs by visiting RTOs and organising campus open days. HEPs should consider this and other outreach strategies to foster the academic progression of students from under-represented groups. HEPs should also ensure that students

receive appropriate support to make the difficult transition from VET training to tertiary education.

HEPs may wish to consider the suggestion made by ANMAC that an EN associate degree be nested with a four-year Bachelor of Nursing degree (see Section 3.4.4 of this report). Unlike the EN diploma and RN degree, which differ in their curricula, teaching methods and assessment techniques, the nested arrangement would offer coordinated courses based on similar teaching philosophies. Students could begin work as ENs after completing the associate diploma, which would help compensate for the extra costs of a four-year degree. The efficacy of a nested qualification may be tested by examining the outcomes of UK nursing education where associate and registered nurses are both educated in HEPs.

Recommendation 15. HEPs should develop robust articulation arrangements from VET credentials to degrees. Exit points should allow students to work while continuing their studies. HEPs should also consider creating EN associate degrees to facilitate a smooth transition between EN and RN qualifications.

4.2.3 Widening indigenous participation

All HEPs have programs aimed at recruiting and supporting Indigenous students. Some focus specifically on the health professions. Griffith University's First People's Health Unit is an excellent example.¹²⁴ The unit runs an online Transition and Tertiary Preparedness Program to assist Indigenous students to make confident and successful starts to their health studies. The First People's Health Unit also runs an Aspirations to Health program aimed at high school students. The Aspiration to Health program contains a specific reference to careers in nursing. HEPs may want to consider cooperating in consortia to attract Indigenous students to health professions in general and nursing in particular. They can draw on the expertise of CATSINaM to help them create and implement strategies to recruit Aboriginal and Torres Strait Islander students into nursing courses.¹²⁵

Recommendation 16. HEPs should consider forming consortia to develop recruiting, transition, and preparedness programs specifically designed to attract Indigenous students to nursing and to support them in making the transition to tertiary education.



SECTION 5:

The Evolving World of Health Care: Educating Nurses for the Future

Our goal is to make Australia's health system the world's number one.
—Greg Hunt

This section of the report examines some trends in health care and their implications for educating nurses. Predicting the future is fraught with difficulty and the review did not have access to a crystal ball. However, the general outline of what is coming in health care is already becoming apparent and similar trends can be found in many different countries. These trends include the need to provide for the chronic health problems of an ageing population, a growing concern with mental health, a desire to prevent illness and promote wellness, attempts to use big data and new technologies to improve diagnoses and treatment, and dealing with the ever-increasing expectations of health consumers. The changes ahead pose challenges but also offer exciting prospects for nursing. To be ready for the future, educational institutions will have to redefine what nursing students need to learn and employ the most efficient methods to teach them.

Section 5 summarises some of the challenges facing health care and their implications for educating the nurses of the future. For a detailed analysis of how the changing nature of health care will affect nursing see the companion papers, *Future Direction in Health Care Delivery and Clinical Skill Development*, in Appendix 3 of this report.

5.1 Five trends affecting nursing education

This section discusses five significant trends that will almost certainly affect the future of nursing. It begins by looking at how changing demographics will require nursing education to increase its focus on primary care.

5.1.1 The ageing population and the burden of disease

As the population ages and life expectancy increases, the burden of disease is shifting from acute illnesses to chronic conditions such as diabetes, cancer, heart disease, and dementia.¹²⁶ Many of these disorders are at least partly the result of lifestyle choices — obesity, smoking, alcohol, lack of exercise, and drug abuse. Health promotion targeted at unhealthy lifestyles could delay or even prevent chronic illnesses that diminish the quality of older people's lives. With guidance and support, those who have already developed chronic conditions could learn how to improve their lives through self-management, thereby reducing the need for expensive periods of hospitalisation.

Nursing's holistic person-centred approach is ideally suited to the prevention and management of chronic conditions, but the nursing education of the future will have to be tailored accordingly. Although today's nursing education certainly does not ignore chronic disease, it is only beginning to think about the huge role nursing can play in preventing illness.¹²⁷ Today's nurses are not routinely taught how to help people manage

their conditions at home. In future, health promotion and patient self-management will merit much higher profiles in nursing education.¹²⁸

“Reorienting nursing education to increase the emphasis on primary health care is central to ushering in a new era in health care.”

Australian Primary Health Care
Nurses Association

Traditionally, nursing education has primarily occurred in hospitals, whereas future employment opportunities will grow mainly in the community. For nursing to make its full contribution to Australia's health, education delivered in the classroom and clinical placements will need to prepare students to enter the workforce in a range of health care environments. These include community settings, aged-care, primary care, long-term care, health promotion, and other locations in which nurses can promote well-being and encourage patients to participate in the self-management of their health. Preparing graduates to move easily from their studies into a variety of workplaces was the most common suggestion made at the consultations; it was also the theme of several submissions.

An impediment to training nurses in workplaces other than hospitals is the difficulty in finding suitable placement settings and supervisors. NMBA and ANMAC have strict restrictions on who can oversee nursing education, which can work against training nurses in community-based settings.

Recommendation 17. Nurses should be prepared by their academic work and clinical placements to enter the workforce in a range of practice environments. ANMAC's accreditation standards should encourage the re-orientation of nursing education toward primary care, which may require an easing of restrictions on who can oversee nursing education.

5.1.2 Increasing incidence and prevalence of mental health problems

Nursing education, at all levels, must reflect national health priorities, and one of the most urgent is mental health.¹²⁹ At any point in time, one in five adults is experiencing a mental health problem.¹³⁰ Specialist mental health nurses are not the only ones who encounter people with mental health issues. Psychological problems arise in all health settings, and every nurse must be prepared to manage them. To be ready for this role, nurses will need to be able to recognise people with psychological problems and know how to meet their needs, including when and how to refer them to appropriate specialists.¹³¹ In addition to managing mental health disorders, the promotion of positive mental health will become an essential aspect of nursing education in the future.

“It seems that in the undergraduate environment, mental health nursing is seen as a specialty for those who are interested rather than a core requirement for all nurses.”

Melissa Metcalf

When it comes to psychological problems, early intervention is essential. However, the paucity of mental health professionals means people in need cannot always access expert assistance.¹³² Only seven per cent of Australian nurses focus their work on mental health, a number that has not changed for years.¹³³ As a result, there are too few nurses with expertise in mental health to cope with present needs, let alone the needs of the future.¹³⁴

Nursing environments can be stressful, and there are many reports of aggression from patients and bullying from colleagues.¹³⁵ The high suicide rate among nurses reinforces the need for an intense focus on mental health to help nurses develop the knowledge, skills, and resilience required to protect their well-being.¹³⁶

People with mental health problems have a high incidence of other health problems; in many cases, physical and mental health interact. For this reason, their focus on treating the whole person makes nurses especially useful in helping people with psychological and physical problems. Curiously, only five per cent of submissions mentioned mental health. No wonder mental health nurses who attended consultations say they sometimes feel like “poor relations.” Mental health placements for nursing students tend to be short and learning perfunctory. As a country, we need to do better. It is vital to the future health of Australians that mental health receives the attention it deserves.

“They [students] are not able to contribute to documentation ... and cannot really learn to manage a session with a client in the two weeks available to them.”

Anna Dunbar

ANMAC’s proposed RN accreditation standards require that the RN course curriculum contain “content related to mental health.” This provision leaves it to HEPs to decide what content to include. Once again, there will be no uniformity about what graduates know and what they can do. To ensure that all nurses are adequately prepared, the accreditation standards must be specific about the core areas of mental health that should be covered and the required learning outcomes. Because ENs also encounter patients with psychological problems, the EN accreditation standards should also require instruction in mental health. A positive side effect of increasing the role of mental health in nursing education is that it may motivate more nurses to specialise in the area.

Recommendation 18. Mental health is a national priority area; it should also be a priority area for educational institutions preparing nurses for practice. ANMAC has added “content related to mental health” to its proposed RN accreditation standards. The EN and NP accreditation standards should be amended to contain a similar requirement. To ensure that all nurses are adequately prepared, the accreditation standards should be specific about the core areas of mental health that must be covered and the required learning outcomes.

5.1.3 The complexity of patient care and the need for inter-disciplinary teams

An ageing population has produced a marked increase in the seriousness, length, and number of chronic and comorbid conditions. Age-related chronic diseases can be complicated, and people often have multiple problems requiring care from a team of professionals. With their holistic philosophy and concern for person-centred care, nurses make ideal leaders of multidisciplinary teams. To fill this leadership role, nurses of the future will need strong teamwork, communication, and collaboration skills. They will also need to be recognised across Australia’s health care system for the critical role they can play leading inter-disciplinary teams.

ANMAC’s proposed RN accreditation standards include “inter-professional learning.” Unfortunately, the review found little evidence that inter-professional education is taking place. Some students recalled a one-day activity shared with students from other areas, while others reported coming into contact with members of other professions when on placement.

“Principles of inter-professional learning and practice are embedded in the curriculum.”

ANMAC proposed RN accreditation standards

Australian research on inter-professional education is sparse (see the companion paper, *Clinical Skills Development*, in Appendix 3). This is surprising because clinical placements provide numerous opportunities to collaborate with members of other professions and to organise joint learning experiences. When they are made available in clinical placements, students generally report valuing inter-professional learning.¹³⁷ However, these activities are rarely evaluated to see what, if anything, students learned. On-campus inter-professional learning experiences, when they occur at all, are usually conducted as workshops centred around a simulated scenario or experience. Again, students report satisfaction with their experience, but it is not clear what knowledge they acquired.

It seems that inter-professional education is largely a “getting-to-know-you” exercise, rather than an opportunity to learn skills such as teamwork, communication, and leadership. Because it is vital to our national health, it is time to formalise inter-professional education. Formal programs already exist in other countries and could serve as models for consideration by education providers, perhaps working in consortia.¹³⁸ The National Centre for Interprofessional Practice and Education at the University of Minnesota provides leadership and research to guide the development of inter-professional education and collaborative practice.¹³⁹ Australia would benefit from having such a centre.

Recommendation 19. ANMAC’s accreditation standards require inter-professional learning to be “embedded in the curriculum.” The EN accreditation standards should contain the same requirement. In both cases, the accreditation standards should include specific learning outcomes and assessments. AHPRA should consider establishing a national centre for inter-professional practice to guide the development of interprofessional education and collaborative practice.

5.1.4 Internationalisation

Internationalisation and globalisation are facts of modern life. People (and diseases) travel around the world at the speed of jet planes. There are great advantages in spending time working in different cultures, and many RN education programs provide students with the opportunity for international study and clinical placement experiences. As a consequence, Australian nursing students may be found working in hospitals, clinics, and public health projects around the world.^{140,141} Of course, Australian RNs who choose to work internationally need to meet the conditions of the countries they wish to work in. These may include examinations, a certain amount of work experience, or both. Requirements for international nurses are constantly changing depending on countries' workforce needs and political priorities. For example, the UK is re-thinking its requirements in light of Brexit. In general, it is fair to say that Australian credentials are well-accepted by other countries.¹⁴²

Internationalisation is a two-way street. Just as many Australians take the opportunity to work and study in other countries, thousands of international students and nurses come to Australia to study and work. Those who were educated internationally have to meet NMBA requirements, which will soon include examinations. Australian educational institutions play host to many international nursing students who not only view Australia as providing an excellent education, but also the opportunity for permanent residency.¹⁴³

International students and internationally educated nurses have added to the diversity of Australian nursing workforce, and they have helped to alleviate nursing shortfalls by accepting positions in regional or specialty areas that find it hard to attract domestically educated nurses.¹⁴⁴ In future, the new outcome-based system of assessing internationally educated nurses should make it easier for appropriately qualified nurses with high-level language skills to register in Australia (see Box 5). However,

the downside to recruiting nurses from other countries is that some come from places that have severe nursing workforce shortages, which are exacerbated by their emigration. This ethical problem requires consideration when developing immigration policies.

One of the terms of reference of this review was to examine “the competitiveness and attractiveness of Australian nursing qualifications across international contexts.” Based on the information available, it seems reasonable to conclude that Australian nursing is attractive to international students and nurses and that Australian students and nurses are respected internationally. This situation will require ongoing monitoring as the standards for nursing qualifications are continuously evolving both nationally and globally.¹⁴⁵

5.1.5 Explosive growth in technology

Information technology has permeated into every aspect of health care. The speed and capacity of computers and mobile devices have facilitated telehealth, which brings together patients and health providers who are physically far apart. Nanotechnology is revolutionising diagnosis, while genetics is transforming treatment. Futuristic robots are beginning to assist patients in hospitals as well as surgeons in operating theatres. Advances in using large data sets to help predict which patients are at risk of developing conditions and how patients will respond to different treatments has brought the long-held goal of individualised treatment closer to reality.

The proposed RN accreditation standards require HEPs to include “health informatics and digital health technologies” in their curricula. This broad statement gives HEPs considerable scope to decide what to include. In the interest of ensuring that all nurses receive an appropriate education, it would be worthwhile developing specific advice about which aspects of informatics and digital health technologies to include in the curriculum and the skill level nurses should be expected to attain.

“Clinical training of nurses as new entrants to the workforce [should be] underpinned by a solid theoretical and practical foundation in data, information and analytics.”

Nursing Informatics Australia and Health Informatics Society of Australia

In 2015, the Australian Nursing and Midwifery Federation (ANMF) developed a set of information processing standards, which covered three domains: computer literacy (basic computer skills and knowledge, information literacy (the skills required to identify, access, evaluate, and apply information), and information management (the knowledge and skills to ensure safe, legal, and ethical management of information).¹⁴⁶ Other countries have developed similar guidelines.¹⁴⁷ These can serve as models for developing more specific curriculum standards for RNs and ENs.

Any new standard must view health informatics and digital health technologies as more than just learning how to use digital devices or check databases. The nurses of the future will also need to understand the strengths and limitations of different tools, and how to make informed choices about when and where to use them.

One upshot of the digital revolution is the easy availability of health “advice.” Smart phones and watches, equipped with a myriad of health applications, have given patients access to a considerable amount of good (and bad) health-related information. As a consequence, patients are acting like informed consumers who wish to participate in clinical decision making. Nurses will need to appreciate these expectations and be skilled at helping patients to distinguish good information from bad.

Recommendation 20. ANMAC’s RN accreditation standards for health informatics and digital health technologies should specify learning outcomes and the level of expertise required. The EN accreditation standards should contain similar specifications.

5.2 Preparing for the future

Section 5.1 covered some of the knowledge, skills, and attributes that will be expected of nurses in the future, but it did not include all of them. Submissions to the review suggested other content areas that RN curricula should cover (see Box 18), and the companion paper, *Future Directions in Health Care*, in Appendix 3, suggests many others.

Since no one has suggested deleting anything from the curriculum, adding new material will not be easy. Nursing curricula are mature and well-developed. Over the years, they have become increasingly integrated, student-centred, and problem-based. Although they once emphasised content, they now focus mainly on concepts. Just adding new subjects without thinking of how they fit into the whole can result in curriculum creep — the curriculum may become over-stuffed, incoherent, and stray from the accreditation standards.

Recommendation 6 of this report calls on NMBA to specify the core knowledge, skills, and procedural competence newly registered ENs and RNs require to function in any workplace setting. In doing this, NMBA may consider the areas identified in Box 18 for inclusion.

Of course, the curriculum cannot accommodate all possible relevant topics. Maintaining coherence requires making choices. It may seem obvious, but these choices must align with national (and local) needs and policies. NMBA and education providers will need to consider the priorities contained in federal and state government health plans; they will also need to engage patients and health service providers and policy-makers in the process of curriculum design.

Box 18. What else should the nursing curriculum include?

Undergraduate nursing education is designed to educate generalists who can provide high-quality health care and perform key functions in a variety of health service settings.

Specialist education, which takes place at the postgraduate level, is expected to build on the generalist base. The review received submissions from nursing organisations advocating more time be devoted to areas they felt were neglected in the undergraduate curriculum. Several of these areas (mental health, chronic care) are covered in Section 5.1 of this report. The other fields are all essential for entry-level nurses to understand, not as experts but at the level of a generalist.

Recommended areas include:

Alcohol and drug abuse are a social scourge which all nurses will encounter at some time in their practice.

Children and young people are especially vulnerable. Generalist nurses need to be familiar with the careful handling required for children in health settings.

Chronic pain is often considered a symptom of various conditions rather than a health problem with its own management protocols, which should be understood by a generalist nurse.

Incontinence is not uncommon in hospital, aged care, and other health settings. Both ENs and RNs should be introduced to the basics of continence care.

Intellectual disability is given little time in nursing courses (if it is given any time at all). As a result, students are missing out on acquiring sufficient knowledge to be confident in delivering care.

Recommendation 21. In the process of specifying the core knowledge, skills, and procedural competence newly registered ENs and RNs require to function in any workplace setting (see Recommendation 6), NMBA should use national and local health priorities as a guide.

5.2.1 How many nurses do we need?

To help foster national health priorities, nursing curricula must be consistent with workforce planning. Unfortunately, workforce planning and education are not well integrated.¹⁴⁸ Several submissions identified a disconnect between the number of graduating nursing students and the lack of jobs available for them.

“The educational preparation required for nurses to meet future health, aged care and disability needs of the Australian community ... is under strain due to the disconnect in priorities between the education sector and the service system.”

CATSINaM

According to the Commonwealth Department of Jobs and Small Business, “in 2017-18 (the most recent data available), employers filled their nurse vacancies with relative ease.”¹⁴⁹

In some parts of the country, students are leaving education with debts, but are unable to repay them because they cannot find jobs.¹⁵⁰ Of course, the employment situation could change in future; the need for nurses could increase. However, as noted in Box 19, traditional workforce planning is not particularly helpful in preparing for the future.

The problem with national workforce plans is they lack sufficient specificity to identify state-based issues such as a local need for specialist nurses in a particular region. Also, balancing supply and demand in nursing is difficult because there are few control mechanisms available. Unlike the medical colleges, nursing organisations play no role in determining workforce numbers. And, unlike

medicine, nursing places at university were uncapped. (Note, however, that the demand driven university admissions system has been temporarily suspended.) To provide more timely and accurate information, policy-makers should focus on how many nurses enter and leave the profession over a particular period (usually one year). This provides an indication of the “replacement” rate, which can be calculated at the state or even local level.

Recommendation 22. In partnership with states and territories, the Commonwealth Department of Health should initiate an ongoing assessment of replacement, recruitment, and retention rates for generalist and specialist nurses across the country.

5.2.2 Online delivery and simulation

Almost all nursing courses include online instruction in their curriculum. In most cases, online delivery is blended with face-to-face learning, but some nursing courses are offered entirely online, with only a few short face-to-face skill development blocks. Solely online courses are a boon to students in rural locations, those obligated to work while studying, or students with family care responsibilities. Without an online option, they may not have access to education. Still, fully online courses created controversy at review consultations, which were also reflected in submissions. Recognising the social benefits of online learning, and its value in widening participation, several commentators recommended that at least the first year of the course be face-to-face. Some saw online instruction as viable only for some topics, and a few commentators rejected online education altogether.

“Online teaching of cultural safety is not adequate. There also needs to be a face-to-face component to facilitate opportunities for testing of ideas.”

CATSiNaM

Box 19. Is there a nursing shortage?

Google “Australian nursing shortage” and you will find dozens of entries claiming the existence, or the imminent arrival, of a “catastrophic” shortage of nurses. The source usually cited for these claims is a 2014 Health Workforce Australia (HWA) study,¹ which predicted the demand for nurses in 2019 would exceed supply by several thousand. We are now in 2019, and current employment market reports conclude that there are no shortages of RNs in New South Wales, Queensland, Western Australia, or South Australia.² Nationally, there are between 6 and 7 applicants for every vacancy; a number that has not changed for years. Western Australia has so many newly graduated nurses, some have left to practice in Scotland. Apart from New South Wales, which has some problems finding enrolled nurses, there are no shortages of ENs either.

Of course, HWA’s forecasts for 2025 and 2030 might turn out to be correct, but it is not common for long-term predictions to be more accurate than short term ones. For now, Australia does not have a nursing shortage, let alone a catastrophic one. It is worrying, however, that up to two-thirds of job applicants are considered “unsuitable.”³ Among the reasons for this judgement were “poorly written applications, poor interview performance and a lack of soft skills.” Australia, it seems, is not experiencing a shortage in the number of nurses but in the number of high-quality graduates.

1. Health Workforce Australia. Australia’s future workforce. Canberra, 2014. (Fig 17 and Fig 18)
2. Department of Jobs and Small Business, Nurses Australia 2017-2018
3. Labour Market Research Nurses Queensland. June 2018 ISSN 2209-4210 Australian Government Dep of Jobs and Small Business.

Research on online learning has produced mixed results. The World Health Organisation commissioned research that found the learning outcomes of online courses to be equivalent to traditional education.¹⁵¹ Also, students appreciated the convenience of studying online and the opportunity to interact with peers. In contrast, another review of online learning in continuing professional education was less positive about its results.¹⁵² It seems that online nursing courses have social benefits, but their teaching efficacy has not been established. Further research is required to demonstrate that students studying entirely online are acquiring the knowledge, skills, and attitudes necessary for safe practice.

Another area of teaching that requires more research is simulation. At present simulation plays a part in every nursing course. It is used to teach subjects ranging from birth to end-of-life care and everything that comes between them. The approaches to conducting simulation are equally varied. They include role-playing, scenario planning, mock hospital wards, robots, artificial intelligence, computer games, and much more. Simulation has been extensively studied (see the companion paper *Clinical Skills Development* in Appendix 3). The results of the studies are difficult to summarise or compare because they vary in both inputs (what type of simulation they study) and in their outcome measures (how they define learning). Taking the limitations of the research into account, medium and high-fidelity simulation have generally been found to be effective methods of teaching nursing skills. A review of studies comparing simulation to traditional clinical placements concluded that:

Overall, these studies showed that clinical competency and critical thinking appeared to remain stable whether students received up to 10%, 25%, or 50% simulation in lieu of clinical placement hours.¹⁵³

The issue of whether simulation should be substituted for student clinical placements arose at several review consultations. In the United States, the National Council for State

Boards of Nursing Study has determined that simulation may replace some proportion of clinical placement hours; the UK has reached a similar conclusion. Because of the relatively low number of placement hours required of Australian nursing courses, most consultation commentators were against substituting simulation for placement hours. This sentiment is unlikely to change even if Recommendation 10 of this report is accepted, and minimum placement hours are increased. Still, given the proven efficacy of simulation, it would be worthwhile studying how simulation and traditional placements could be combined to produce the best and most efficient learning outcomes.

Recommendation 23. The Commonwealth Department of Health should sponsor research aimed at determining the ideal mix of online and face-to-face teaching as well as how best to integrate simulation and clinical placements.

5.3 Nurse practitioners, specialists, and academics

As mentioned several times in this review, initial nursing education is intended to equip nurses with the core knowledge, skills, and behaviours needed to work in a wide variety of settings. After graduation, nurses build on their initial educational foundation by undertaking additional formal education, continuing professional education, and work experience. With postgraduate credentials and extensive specialised experience, nurses may take on high-level specialist roles.¹⁵⁴ Their positions carry an array of titles usually referring to their particular specialities — pain management nurse, mental health nurse, operating theatre nurse. The work performed by these nurses is often characterised as “advanced practice,” but there is considerable confusion about what advanced practice entails.

Systems for recognising health professionals who have achieved higher levels of practice usually include clear educational pathways, some form of assessment, and certification.

The Australian College of Mental Health Nurses has created a system for recognising the expertise of mental health nurses and other colleges have similar schemes, but none have any “official” status. The only legally regulated advanced practice nurses in Australia are nurse practitioners (NPs), the most senior members of the nursing profession. To use the title NP in Australia, RNs must meet a set of educational and experience benchmarks and be endorsed by NMBA. Once endorsed, NPs’ practice must adhere to a set of standards (see Box 10).

It is almost 20 years since the first NPs were endorsed in Australia. Yet, many of the nurses who attended review consultations professed to be unsure what NPs do, how they are educated, and — given the wide variety of specialist nurses — why they even exist. This level of naivety should not be surprising. A survey of the NP community conducted by the Department of Health for this review, found that approximately 90 per cent of NPs believed their role is not understood. There are only 1,839 endorsed in Australia (0.6 per cent of the nursing workforce), and it is unclear how many are employed or practicing as NPs. Because there are so few, it is possible to work as a nurse in Australia and rarely encounter an NP. How we got to this situation, and what might be done about it are discussed next.

5.3.1 NPs: The original idea versus the current reality

Jann Foster’s doctoral thesis on the origins of NPs describes how the idea began in the USA and then moved to Canada.¹⁵⁵ In both countries, NPs were conceived as mid-level primary care providers. That is why the first NP journal, which began publishing in 1976, was called *The Nurse Practitioner: The American Journal of Primary Care*. When the idea of establishing NPs was first debated in Australia, they were expected to follow the American and Canadian examples and serve mainly as primary care providers. In the New South Wales parliament, politicians

gave speeches envisioning the creation of NPs as a way to enhance access to primary health care in the rural and remote areas of the state.¹⁵⁶ NPs in primary care roles serving under-supplied regions were seen as so valuable that, in Western Australia, experienced and knowledgeable remote area nurses were “grandfathered” into NP roles without completing any formal education requirements.¹⁵⁷

However, not all Australian nurses shared the original vision. Some experienced clinical nurse consultants saw the NP role as a way to gain recognition for their professional skills.^{158,159} As Foster notes, what happened next was a clash of visions. Because of the:

■ differing visions and vested interests of those involved in the development and implementation of the NP role it became a process of negotiation and compromise. Disparate visions and vested interests influenced and impacted the way the NP role was developed and enacted. There was much interplay between NPs and stakeholders according to the vision and power they held.

Fast forward to the present, and it is possible to see which vision prevailed. Only a small number of NPs work in primary care; state and territory governments employ the majority in acute care settings such as hospital emergency departments and renal dialysis units. Given the presence of many non-NP “specialists” working in similar areas and doing many of the same things, it is easy to understand why there is confusion about the purpose of the NP role.

The “negotiation and compromise” required to establish NPs delivered a very different outcome from the original conception. Part of the reason was resistance from doctors, who saw NPs as impinging on their roles. However, as Andrew Scanlon and his colleagues showed, opposition from doctors was only one of several factors affecting the practice of NPs:¹⁶⁰

A nurse practitioner's scope of practice is conditioned by Federal, State and Territory legislative and regulatory requirements, and the governance processes and authorization requirements of individual health care organizations or networks imposed through local policies. There remain many barriers to full expression of the scope of practice for nurse practitioners, some of which have no clear rationale or uniformity ... Often the reasons are political, while at other times economic.

Role confusion, the availability of lower-cost specialists, resistance from doctors, and a variety of restrictions on NP's scope of practice, have all taken their toll. Enrolment in NP courses is declining, few new NP positions are being created, and many endorsed NPs are not working in NP positions.¹⁶¹ The Commonwealth's Stronger Rural Health Strategy allocated approximately \$300,000 to a 12-month awareness-raising campaign to increase the profile of nurse practitioners. This was like putting a band aid on a corpse. Without a major revival, NPs seem destined for irrelevance.

5.3.2 Back to the future

The original purpose of introducing NPs was to increase access to primary care, especially in the regions. At the time, most nurses were prepared and practised in acute care. However, as mentioned several times in this report, nursing is rebalancing away from acute to primary care. Thus, the time is right to revive the original rationale for NPs. This will require three major changes to their preparation.

First, the length and type of experience required to become an NP need to be revisited. Even if everyone could agree about what "advanced practice" means, the current arrangements are not appropriate for primary care. Requiring lengthy periods of advanced practice in a particular area encourages extreme specialisation. Rural general practice requires broad knowledge, not narrow specialisation.

Second, nurse practitioner master's courses need to be redesigned with primary care in mind. This redesign requires more than tokenistic efforts to include exposure to settings outside of a nurse's established area of specialisation. NPs can still have their specialised areas of expertise, but nurses prepared to work autonomously in primary care must be able to cope with a wide variety of problems.

The third thing that needs to change is how to assess whether an NP is suitable for endorsement. As recommended for RNs, clear and consistent independent assessments of the knowledge, skills, and competence of NPs should replace hours served, particularly when the "advanced practice" level at which these hours are required is poorly defined.

NPs practising in regional and rural areas currently serve a vital role in the delivery of health care to Indigenous communities and other vulnerable and traditionally underserved populations — however, there are very few. Refocussing the preparation of NPs could serve as the first stage of a significant rebalancing of nursing toward addressing national health priorities and, in turn, significantly increase the demand for NPs.

The Department of Health recently commissioned KPMG to undertake a cost-benefit analysis of the NP role in Australia.¹⁶² The analysis showed that enabling patients to access Medicare rebates for care provided by NPs would improve access and deliver substantial savings to the health care system.

Recommendation 24. In line with national health priorities, NP education should be oriented toward primary care, particularly in the regions. Advanced practice requirements should be revised to encourage the formation of the broad skills required in primary practice. Expertise should be demonstrated by independent assessments. Access to the Medicare Benefits Schedule for NP services should be reviewed.

5.3.3 Increasing the number of nursing academics

Australian nursing faculties score well on measures of research.¹⁶³ Their academics have the expertise and credentials to supervise the next generation of nursing academics. This is an urgent task, as many academics are approaching retirement. Unfortunately, clinical roles generally pay better than junior academic ones, which makes it difficult for HEPs to recruit new staff. One possible solution to this problem is to pursue joint appointments, which allow academics to spend part of their time in teaching, and the remainder of their time in health service provision. Academics working in both sectors would be able to ensure their teaching was relevant to clinical realities. HEPs should also recruit males and minority group members whose under-representation impacts teaching cultural awareness.

“Aboriginal and Torres Strait Islander People must be given a voice in nursing education.”

CATSINaM

Because nursing is mainly a three-year degree, graduates often lack research training and experience; they often need extra preparation to get them ready for a PhD. Scholarships may be needed to help recruit PhD students. Because the under-representation of minority group members among nursing academics impacts the way cultural awareness and safety are imbedded in curricula, HEPs should make a significant effort to diversify their PhD student cohorts.

Recommendation 25. Government and HEPs should increase their support for doctoral studies in nursing, especially for members of minority groups.



SECTION 6:

Summing Up and Implementation of Recommendations

Nursing, the largest health profession, has the potential to promote wellness and prevent disease across the lifespan, across social groups, and across the country. In the future, the health system will focus on primary care and prevention; teams of health professionals will deliver coordinated care, and payment for health care services will reward the value not the volume of services delivered. The aim of this review was to help nursing achieve its potential by ensuring that nurses are prepared to meet the needs of the future health system.

Nursing education in Australia rests on solid foundations. A wide variety of educational institutions provide courses designed to meet national nursing practice standards, and these courses are independently monitored to ensure their quality. Nevertheless, concerns about the safety and quality of graduates were expressed at all of the review's consultations and in submissions. AHPRA received over 2,000 notifications about problems with nurses last year. This is a small proportion of nurses, but some of the complaints were alarming and must be addressed. There is ample evidence to show that well-educated nurses produce better health outcomes — lower mortality, fewer complications, and better allocation of resources. Improving nursing education is an investment that will pay off handsomely by enhancing the health of all Australians.

The review highlighted a variety of areas in which nursing education could be improved. These included independent assessments of nurses' literacy, numeracy, knowledge, and skills; clearer expectations of what graduates are expected to know and do; robust monitoring of education programs and practice placements; more time spent on clinical placements; accreditation of transition-to-practice programs; a shift of emphasis from acute to primary care; recruiting minority groups to nursing; a new approach to nurse practitioner education; smooth transition among and between academic credentials; more accurate workforce data, and better coordination between educational institutions, employers, and health policy makers. The lack of research on many aspects of nursing education makes it difficult to offer evidence-based advice about best practice. More funding is required to study the outcome of different approaches to nurse education, and more academics are required to conduct this research and prepare the next generation of nurses.

Making recommendations means focussing on areas that could be improved, but it would be a mistake to think that Australian nursing education is flawed, second-rate, or struggling. Nursing education — in educational institutions and health agencies — is filled with enormously dedicated people whose intelligence, dedication, and selflessness are apparent in their submissions and in their contribution to consultations. Their enthusiasm for nursing is matched by the nursing students whose optimism and drive were inspiring.

Although some of the recommendations made in this review can be implemented quickly, transforming nursing education is a long-term process that will require action across and between the education and health delivery sectors as well as a continuing commitment from the government. To encourage and steer change, the review will require an implementation mechanism, which is discussed next.

6.1 Implementation of recommendations

Every review requires a mechanism for reviewing progress and implementing its recommendations. In the case of the present review, the most appropriate body to advise and oversee the realisation of the review's recommendations is the National Nursing and Midwifery Education Advisory Network (NNMEAN). NNMEAN advises ministers and its membership broadly represents all aspects of nursing education. NNMEAN could delegate implementation tasks to other bodies as necessary, but it should retain responsibility for reporting on progress. The government should consider commissioning a follow-up review after four years, with the aim of assessing the progress in implementing the recommendations contained in this report.

Recommendation 26. The National Nursing and Midwifery Education Advisory Network (NNMEAN) should be given responsibility for overseeing the realisation of this review's recommendations. The government should consider commissioning a follow-up review after four years, with the aim of assessing the progress in implementing the recommendations contained in this report.

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