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Building the evidence base for a National Nursing Workforce Strategy

Summary of environment scans

May 2024

Contents

Introduction

To help develop the evidence base for Australia's first National Nursing Workforce Strategy, we, in collaboration with Federation University nursing academics, scanned academic and grey literature about the nursing workforce in 14 countries, including Australia, and 5 organisations. This included government publications, news articles, academic journals and reports from various stakeholder groups. We aimed to understand challenges facing nursing workforces in jurisdictions similar to Australia, ongoing efforts to address those challenges, and the impact of these efforts.

There are significant, and often overlapping, challenges facing the nursing workforce in each of the countries included here. There is correspondingly a large amount of information available about the issues and proposed or implemented solutions. Therefore, rather than adopting a systematic literature review approach, we have aimed to capture the most pressing issues across these countries with a view to providing easily accessible summaries of lessons most relevant to the Australian context. The findings are supplemented in 9 cases with interviews involving nursing professionals or academics to further contextualise and develop understanding of the nursing workforce policy landscape in those countries.

In this summary document we provide an overview of findings from the individual environmental scans (see each scan for more information). This summary is broken down into themes, following the same general structure as each individual scan document. The themes are:

1. workforce planning and policy
2. recruitment and retention
3. education and training.

We note that many of the issues discussed could easily fit into more than one of these themes and that there are many ways that the information could be presented. We have aimed to translate large amounts of information into a structure that facilitates easy access to key points.

Method

The environment scans were conducted in 2 phases for each country or organisation. In phase 2, a scan for relevant academic, peer-reviewed research articles published between 2018 and 2023 was undertaken according to the criteria outlined in the appendix. Phase 2 built on the findings from the peer-reviewed publications and included a targeted search of grey literature and relevant online platforms. This process was carried out for each of the 14 countries and 5 organisations. Expert opinion was also used to identify the relevant literature for this phase. Refer to the appendix for more detail on the search strategy used.

Countries: The 14 countries included in these scans are all members of the Organisation for Economic Co-operation and Development (OECD); they are all parliamentary democracies and are all considered economically prosperous, with populations experiencing relatively high standards of living. With the exception of the United States, all these countries have some form of universal health care. The countries included are:

- Australia
- Canada
- England
- Finland
- Ireland
- Israel
- Netherlands
- New Zealand
- Northern Ireland
- Norway
- Scotland
- Switzerland
- United States
- Wales.

OECD data that is available for the countries included in the scan is outlined in the table below to provide a high-level indicator of how each country compares with Australia and the OECD average.

Country	Practising nurses per 1,000 population (2022 or latest available)	Nursing graduates per 1,000 population (2022 or latest available)	Share of foreign trained nurses per 1,000 population (2021 or latest available)
Australia	12.8	1.16	18.1
Canada	10.3	Not available	8.8
Finland	18.9	2.11	1.4
Ireland	15.2	0.32	46.6
Israel	5.4	0.29	10.7
Netherlands	11.4	0.63	1.5
New Zealand	11.4	0.43	29.9
Northern Ireland	Not available	Not available	Not available
Norway	18.3	0.78	6.2
Scotland	Not available	Not available	Not available
Switzerland	18.4	1.13	25.6
United Kingdom	8.7	0.43	17.9
United States	11.9	0.66	6.1
Wales	Not available	Not available	Not available
OECD average	9.2	0.43	8.7

Organisations: The scans also included the available information published by or about the work of 5 organisations. These organisations were chosen because they have interests in the nursing workforce globally and produce valuable advocacy and research work. Much of this work is relevant to the evidence base needed to form a National Nursing Workforce Strategy for Australia. The organisations included are:

- Commonwealth Nurses and Midwives Federation
- International Council of Nurses (ICN)
- International Confederation of Midwives
- International Labour Organization (ILO)
- World Health Organization (WHO).
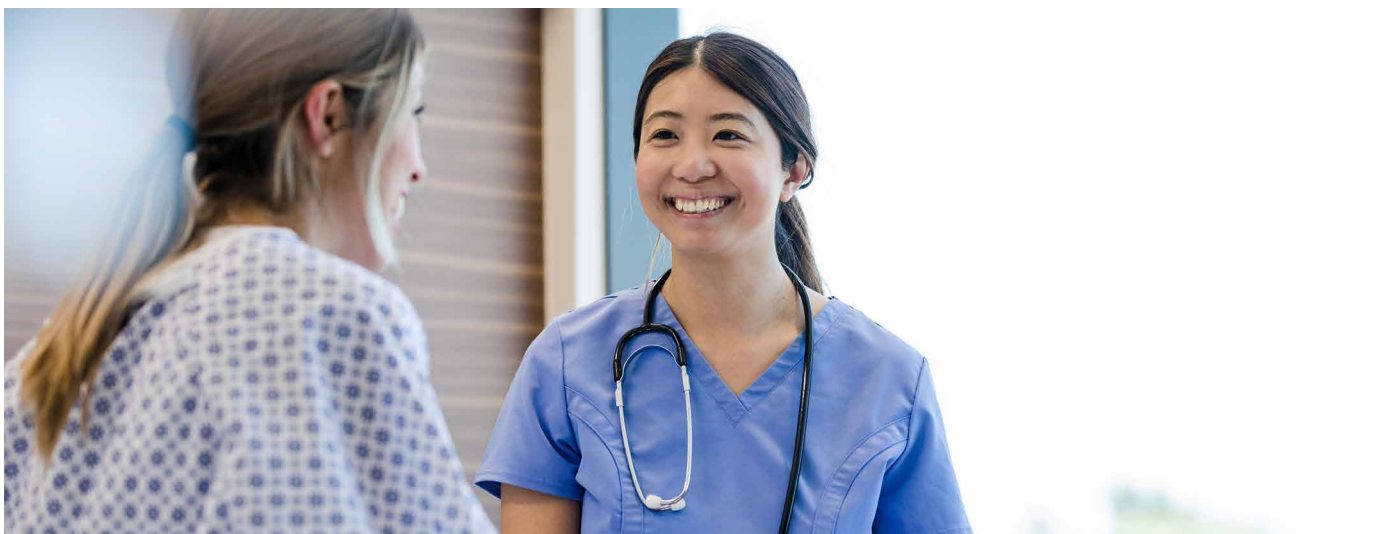
Key findings

Overview

The exploration of workforce planning in the nursing sector across various countries reveals a complex array of challenges. Addressing these challenges is critical to the sustainability and effectiveness of health systems. These countries are experiencing the same challenges that are contributing to nurse workforce shortages, and most are proposing, developing or implementing similar initiatives that seek to address them.

Recruitment and retention of nurses is a pervasive challenge across many regions, exacerbated by factors such as an ageing workforce, increasing demand for healthcare services due to demographic changes, and the allure of more flexible or financially rewarding roles in locum or agency work or indeed other industries. The inefficiencies and rigidity of regional recruitment processes, coupled with frustration over the lack of training opportunities and perceived short-term cost-cutting measures, further compound the difficulty in attracting and retaining skilled nurses.

Nursing workforce sustainability features strongly in the international literature, particularly in the context of an over-reliance on the immigration of health professionals, in some cases despite the host country producing a high number of graduates itself. This situation points to a misalignment between the output of educational institutions and the needs of the health system, as well as potential barriers to entry or retention within the profession.

Governing bodies and academic institutions report that challenging workplace conditions contribute substantially to attrition and subsequent workforce shortages. Further, workforce demographics including an ageing workforce, gender imbalances and a lack of cultural diversity that reflects the population it serves add considerably to the workforce planning challenges of the nursing profession. They note that these demographic challenges are linked to broader issues of workplace culture, including the need for a more inclusive, supportive and flexible working environment that can adapt to the diverse needs of the workforce.

The literature pays particular attention to the impact of technological advancements and digital transformation on healthcare delivery and workforce requirements and their role in supporting the resourcing of the future nursing workforce. Equally, experts in this area note that, as health systems evolve, there is a pressing need to ensure the nursing workforce is equipped with the necessary skills and training to leverage these technologies effectively, enhancing patient care while also opening new avenues for professional development and specialisation.

Finally, the environment scans highlight that strategic planning and integration of workforce planning with broader health system reforms is a critical challenge. Effective workforce planning requires a coordinated approach that aligns with the overall goals of health systems such as improving access to care, enhancing the quality of services and ensuring financial sustainability. This involves not only addressing immediate staffing needs but also anticipating future changes in healthcare demand, service delivery models and the potential impact of external factors such as political or economic shifts.

Each country agrees that addressing these challenges requires a multifaceted strategy that encompasses:

- targeted recruitment and retention efforts
- investment in education and training
- support for workforce diversity and inclusion
- adaptation to technological advancements
- integrated workforce planning.

But they also recognise the difficulties in delivering on these objectives. The environment scans reveal very little investment in, or formal evaluation of, plans, strategies and initiatives designed to address nursing workforce shortages. Therefore, in many cases it is difficult to assess the success and therefore relevance of measures taken in other jurisdictions. However, where possible, we have highlighted potential areas of relevance to the Australian context and note the importance of formal evaluation for future planning.

1. Workforce planning

Strategies and plans

While nursing workforce shortages are global, the scans of the selected countries reveal that some countries are more advanced in their nurse workforce planning than others. Scotland, Finland and Ireland, for example, appear to have more strategic approaches to workforce planning, and Northern Ireland, Israel and Canada have also invested in addressing workforce shortages:

- **Scotland** has reported some progress in increasing the nursing and midwifery workforce by 14.5% since 2006 (Scottish Government 2022). Scotland's approach to safeguarding staffing, including offering free university tuition and bursaries for nursing students, reflects its commitment to addressing workforce challenges (Scottish Government 2023).

- **Finland's** approach to workforce planning, particularly in addressing workforce shortages and safe staffing levels, is notable (Ensio et al. 2019; Kalliomaa-Puha and Kangas 2021). Finland conducts workforce planning every 4 years in the context of overall labour projections. The country's proactive stance in estimating the need for approximately 30,000 more nurses by 2030 to meet the demands of an ageing population and government obligations showcases a forward-thinking approach to workforce planning.

- **Ireland's** strategic initiatives, such as the implementation of Sláintecare, a 10-year strategy aimed at shifting care from acute to community settings, demonstrate a comprehensive approach to workforce planning. The country's focus on safe staffing, service models and developing frameworks to determine safe staff levels based on patient need highlights a patient-centred approach to workforce planning. Ireland's efforts to increase postgraduate study places and provide infrastructure support in the primary and community care workforces further illustrate a commitment to enhancing the nursing workforce's capacity and flexibility (Government of Ireland 2021).

  Also in Ireland, a collaboration between the Department of Health and AARC Consulting, supported by the European Commission, aims to enhance health and social care workforce planning.

This initiative's focus on developing scenario-based projections for workforce supply and demand and formulating a comprehensive strategy and action plan underscores the importance of data-driven and strategic approaches to workforce planning (European Commission 2021).

Ireland's strategies not only address immediate workforce deficits but also claim to be laying the groundwork for a sustainable, future-proof nursing workforce that aligns with healthcare delivery reforms and population health needs.

- **Northern Ireland** developed a long-term healthcare workforce strategy titled *Health and social care workforce strategy 2026: delivering for our people* (Northern Ireland Department of Health 2018a), which includes boosting locally trained and international nursing staff numbers. This strategy, coupled with establishing an international nurse recruitment process and improvements in data collection, showcases Northern Ireland's commitment to addressing workforce deficits and safe staffing levels.

  Also in Northern Ireland, the *Workforce strategy initial engagement findings* (Northern Ireland Department of Health 2018b) highlight the critical issues of recruitment challenges, work environment and culture, health and wellbeing, and the impact of Brexit on the workforce. The recommendations for enhancing recruitment and retention, promoting professional development and improving work conditions reflect a targeted approach to addressing these challenges.

- **Israel** has also taken significant steps in workforce planning by setting a goal to increase the rate of nurses to 7 per 1,000 people by 2027 (Nursing Division, Israel 2023). This plan includes recruiting additional nurses into the health system, conducting intensive care training for existing nurses and enlisting nursing students for employment, demonstrating a multifaceted approach to addressing workforce deficits.

- In **England**, the National Health Service (NHS) has developed several strategies relevant to workforce planning:

  - The *NHS long term workforce plan* (NHS England 2023) represents a comprehensive strategy to address workforce challenges through a multifaceted approach encompassing training, retention and reform. The plan's emphasis on expanding education and training opportunities, improving retention through better workplace culture and flexible working options, and leveraging technology and innovation, sets a precedent for strategic workforce planning. The long-term workforce plan further underscores the importance of investment in the current workforce, financial support for students and the expansion of training and education to meet the growing demand for nursing professionals. The plan's focus on reducing reliance on international recruitment and proposing reforms to the NHS pension system illustrates a comprehensive approach to workforce sustainability.

  - The *We are the NHS: People plan for 2020/21 – action for us all* (NHS England 2020) showcases a strategic response to the workforce challenges exacerbated by the COVID-19 pandemic. The plan's focus on leveraging public support and interest, expanding training and education and supporting the mental health of the workforce reflects a proactive and adaptive approach to workforce planning in the face of unprecedented challenges.

While each of these countries has developed and implemented effective strategies in certain aspects of workforce planning, there is little publicly available information that outlines the effectiveness of these approaches.

Workforce data

A recurring theme across the environment scans is the absence of significant and appropriately detailed datasets hindering effective workforce planning and policy development. Most countries and all organisations note that the lack of high-quality, comprehensive data on the health and specifically nursing workforce, including detailed demographic breakdowns, turnover rates and working patterns, makes it challenging to develop targeted strategies to address workforce challenges. Many countries have publicly acknowledged the need for improved data collection and analysis methods, recognising that it is critical to supporting evidence-informed decisions on health workforce policies and planning. In particular, Scotland's and Wales' royal colleges of nursing, the ILO, the Canadian Nurses Association and KPMG, the International Confederation of Midwives and academics in Israel have published papers and/or reports that highlight the significant workforce data issues that impact on nurse workforce planning.

The WHO's National Health Workforce Accounts and the ILO Global Care Policy Portal are examples of initiatives aimed at providing comprehensive data to inform policy and planning (World Health Organization 2023; International Labour Organization 2022a).

2. Recruitment and retention

Recruitment campaigns

The environment scans suggest that recruitment initiatives are less of a focus than retention activities, with many countries reporting high attrition rates. The scan also reveals a possible lack of effective recruitment strategies across all countries investigated, as highlighted by the scarcity of literature focusing exclusively on recruitment initiatives. Countries appear to be having greater success in targeting internationally qualified nurses rather than attracting new domestic nurses into the field. Nevertheless, there are some noteworthy examples of recruitment campaigns or communications seeking to raise the profile of nursing as a desirable profession identified through the scans. These include:

- **NHS's Healthcare Support Worker Programme:** The program focused on recruiting people from non-healthcare backgrounds and providing accelerated certification and career pathways. It successfully recruited a significant number of healthcare support workers.

- **NHS England's 'We are the NHS' campaign** used multimedia channels to promote nursing as a fulfilling career, featuring testimonials from patients and nurses. Reports suggest it increased visibility of nursing roles and highlighted the diverse opportunities within the NHS, contributing to a positive shift in public perception and interest in nursing careers.

- The **'Here for Life'** campaign in the UK and Ireland showcases the diverse roles and significant impact of nurses and midwives and aims to increase awareness and appreciation for the profession. It's described as a social movement for nurses and midwives to show what they do.

- **NHS Scotland's Overseas Recruitment Drive:** Supported by significant funding, this initiative focused on recruiting staff, including nurses, from overseas to meet healthcare service demands. It exceeded recruitment targets by attracting 800 additional staff.

- The **ILO** also notes the success of nursing workforce diversity programs in the United States, which increased the recruitment of nurses from disadvantaged areas through targeted grants programs.

In collaboration with WHO and the ICN, Nursing Now aims to raise the status and profile of nursing. The introduction of the 'Nursing Now initiative, raising the Status of Nurses' (Crisp and Iro 2018) by the internationally supported Burdett Trust for Nursing was designed to help bridge the gap between true role description of nurses and general population assumptions. The campaign highlighted the many different facets of nursing; however, due to COVID-19, it did not gain momentum, with energy focused more on supporting nurses through the pandemic.

- **The Australian Primary Health Care Nurses Association** campaign 'The Anatomy of a Primary Health Care Nurse' seeks to challenge people's perception of what a primary health care nurse is, and what they do.

- **Nurse Hamish:** A nurse in **Australia** shares his experiences in studying and becoming a nurse – the realities, highs and lows, presenting a 'new face' of nursing through social media channels (https://www.instagram.com/nursehamish). This content has been and shared by health organisations and nurses as a kind of grassroots promotion of nursing and sense of shared nursing community.

- **NZ's 'The Real Nurses':** This is an attraction campaign aimed at increasing the numbers of people choosing nursing by showcasing the diversity and rewards of a nursing career. It seeks to encourage more men, young Māori and Pacific Islander people to take steps towards a career in nursing. New Zealand is also focused on rural and remote recruitment and offers a number of specific rural and remote initiatives including incentives for relocation, support for living costs and specialised programs to attract and retain nurses in rural and remote areas.

As noted, there are very few evaluation reports publicly available to indicate outcomes achieved by these campaigns.

Internationally qualified nurses

The environmental scans identified many countries developing and implementing strategies to secure internationally qualified nurses (IQNs) to address workforce shortages, with many acknowledging that this presents a number of challenges for their nursing workforce and that it is not a sustainable solution. The literature notes that several ethical and regulatory considerations are relevant when relying on IQNs. It acknowledges that:

- There is a need for ethical recruitment as suggested by the *Global strategy on human resources for health: workforce 2030* (World Health Organization 2016, p.23). It promotes the adherence to the *WHO global code of practice on the international recruitment of health personnel,* which encourages that 'Member States should discourage active recruitment of health personnel from developing countries facing critical shortages of health workers' and where possible, form international agreements to safeguard optimal nurse staffing levels globally' (World Health Organization 2010, p.5).

- There are significant discrepancies in internationally recognised education standards, accreditation of programs of nursing, requirements for licensing, policies on misconduct and re-certification (Nelson 2013).

- There is a need for greater support of IQNs in their new country, with reports of racism and a lack of inclusiveness in the workplace. Prejudicial racism towards IQNs, cumbersome pre-migration processes (Ng Chok et al. 2018), suboptimal organisational support (Chun Tie et al. 2018) and complications in adjusting to a new culture including communication barriers (Philip et al. 2019) were all identified as challenges experienced by nurses migrating to Australia. Similar experiences are observed in other countries such as Norway (Viken et al. 2018).

While most countries highlight a preference for a 'grow your own' strategy and plan to invest domestically, many do have strategies for better integrating IQNs into the nursing workplace such as introducing pre-migration bridging programs (Chun Tie et al. 2019), organisational measures (e.g. cultural support programs, professional development opportunities and peer support programs) (Kamau et al. 2022) and embedding cultural safety practices into health care (Chun Tie et al. 2018). Specific examples include:

- In **New Zealand**, the IQN Competency Assessment Programme Fund supports IQNs who currently work as health care assistants or support workers to gain or complete their Competency Assessment Programme and work as registered nurses.

- Also in **New Zealand**, the Health Immigration Service launched in 2022 to take a streamlined and ethical approach to attracting and retaining international health professionals.

- **Canada** established offshore nurse recruitment desks and offers funding to cover licensing for international nurses and living expenses.

- **New Zealand's** special occupation list ('green list') includes IQNs and offers accelerated pathways to permanent residency.

- **Israel's** funded online 'refresher' course and personal support and direct bilateral agreements with source nations.

- **UK's** Refugee Nurse Support Pilot Programme supports refugees who are qualified as nurses in their home country to resume their nursing careers in the NHS.

Working conditions and retention

The literature indicates that many countries see nurses leave the nursing profession after experiencing similarly unsatisfactory working conditions. The health and wellbeing of the nursing workforce is a concern, particularly since the COVID-19 pandemic, with all countries and organisations acknowledging that the stress of the pandemic has exacerbated existing workforce shortages and strain. Workplaces do not appear to be equipped to address the problem in its entirety. The key issues as referenced by all countries and organisations include the following:

- **High workloads and staff shortages:** Across many countries, nurses have reported dangerously high workloads due to staff shortages. For instance, in Northern Ireland, 83% of nursing staff say there is an insufficient nursing workforce, leading to unsafe nurse–patient ratios (Royal College of Nursing Northern Ireland, 2023).

- **Inadequate compensation:** In many regions, compensation for nurses does not keep up with the cost of living, leading to poor job satisfaction and retention. In several countries, including the UK and Canada, nurses have voiced concerns that their pay has not kept pace with the cost of living, leading to financial strain and affecting their ability to live in certain areas. Campaigns like 'Fair Pay for Nursing' in the UK highlight the need for pay to reflect the skill, accountability and expertise of nursing as a safety-critical profession.

- **Inflexible rostering:** Many countries report the challenges of retaining nurses within an inflexible rostering system. For example, the Canadian Union of Public Employees highlighted the issue of 24-hour shifts at North Bay Regional Health Centre, arguing that such practices are unsustainable and counterproductive, exacerbating the staffing crisis (Canadian Union of Public Employees 2023).

- **Unsafe working conditions:** The prevalence of violence and harassment in the workplace is a significant concern for many countries, with the ILO noting that it is often under-reported. Psychological violence and harassment are the most common types, with 18% of people experiencing these in their working life (International Labour Organization 2022b). The ILO and WHO recommend developing clear, enforceable policies against bullying and racism in healthcare settings and, as suggested by the ICN and International Confederation of Midwives,

Improving the working lives of nurses is a resource created 'by nurses, for nurses' in Canada. The toolkit draws on the expertise of the nursing community, evidence-based practice and current lived experiences of nurses.

mandatory training programs for all healthcare workers that focus on cultural competence, sensitivity and anti-racism. These should be ongoing and include practical strategies for creating inclusive work environments.

- **Lack of professional development:** Opportunities for professional growth and development are often limited for nurses, leading to stagnation and dissatisfaction within the profession. The need for continuous professional development is highlighted as a key factor in retaining nurses in the workforce (Buchan et al., 2022).

- **Mental health and wellbeing strain:** The mental health of nurses has been severely impacted by the workload and strain caused by the COVID-19 pandemic, with many countries and organisations reporting poor mental health due to the stresses of the job. For example, a poll conducted by SEIU Healthcare and CUPE's Ontario Council of Hospital Unions revealed that 59% of registered practical nurses in Ottawa, Kingston, Cornwall and eastern Ontario were not coping, with 53% describing their mental health as poor (Canadian Union of Public Employees 2021).

Two examples of successful implementation of wellbeing programs in Australia are 'Imagine' and Mindfulness-Based Stress Reduction. Each uses a variety of wellness techniques incorporated into work hours. Staff are given time out of their day to participate in short wellness sessions or attend paid wellness workshop days. It aims to increase wellness in the short term, with guided meditation and exercise, as well as the long term by teaching self-care and resilience.

Wilson et al. (2021) emphasise the importance of prioritising staff wellbeing in healthcare organisations. The Wilson et al. study noted that nursing staff benefited most from the wellbeing initiative, with an increase in job satisfaction reported among the participants.

Many countries have developed and implemented plans to improve working conditions, but there is limited data demonstrating their effectiveness. Instead, the studies related to nurse satisfaction, health and wellbeing continue to show a level of dissatisfaction, and attrition rates indicate they are not working.

- **Workplace violence reduction plan:** Canada has suggested establishing a workplace violence reduction plan alongside a national awareness campaign to address workforce violence. Strategies include creating a culture that supports mental health days, peer support and wellness programs, and building resilience among nurses.

- **Health and wellbeing framework:** The UK has adopted a health and wellbeing framework to retain nurses, the NHS *Health and wellbeing strategic overview* and NHS *Health and wellbeing implementation guide.*

- **Workplace culture framework in the ACT public health system:** The ACT has implemented a workplace culture framework in response to workplace culture issues in the ACT public health system. This initiative focuses on organisational trust, leadership skills, workplace civility, psychological safety and team effectiveness. Recommendations for a national strategy include developing transparent communication channels, leadership training programs, policies promoting workplace civility and fostering a collaborative environment.

The Cognitive Institute and The Royal Melbourne Hospital have partnered to pioneer a system of anonymously reporting bullying and workplace harassment. This highlights a way to spearhead this problem and slowly break down the damaging effects of bullying, which was identified as often being a result of hierarchical structures.

- **Supporting employee wellbeing during pandemics:** New Zealand's research on effective workplace strategies during the COVID-19 pandemic identified key job resources that support employee wellbeing including job security, effective communications and flexibility.

- **The RePAIR project:** Health Education England focused on reducing attrition from training programs and improving retention during the first 2 years of employment. The 2018 project offers recommendations for standardising attrition indicators, addressing financial pressures, ensuring career choice clarity and enhancing preceptorship models to aid recruitment and retention.

Leadership

The literature explains that strong and supportive leadership, specifically transformational leadership, is identified by many countries and organisations as a key element in nurses' wellbeing (Galuska et al. 2023). Such leadership promotes the importance of establishing environments where nurse managers can dedicate time to their staff to better understand their individual needs and aspirations while nurturing their development. Not only do these factors contribute to unit and organisational outcomes, they also significantly influence nurse manager satisfaction and retention (Galuska et al. 2023). Effective leadership also reduces the rate and impact of workplace bullying.

Examples of programs in place include the following:

- **World Health Organization:** WHO has been instrumental in fostering nurse leadership globally with initiatives including creating the Global Forum for Government Chief Nursing and Midwifery Officers and producing a manual to support nurse leadership roles and responsibilities.

- **Northern Ireland:** The HSC Collective Leadership Strategy and the Nightingale Challenge Global Leadership Development Programme focus on creating a leadership culture, developing leadership skills and ensuring access to leadership programs for nurses and midwives at all levels.

- **International Council of Nurses:** The Global Nursing Leadership Institute program, adapted for online delivery during the COVID-19 pandemic, focuses on developing senior nurse leaders' capacity to influence policy at the national, regional and global levels. This program emphasises regionalising leadership development while maintaining cross-regional connections.

- **Papua New Guinea:** The PNG Midwifery Leadership Buddy Program is an example of a capacity-building initiative that pairs midwives from PNG and Australia to develop leadership skills through a buddy system.

- **Switzerland:** Swiss Nurse Leaders focuses on promoting nursing management and leadership through various activities including organising congresses on leadership models in nursing, awards for innovation in health care and involvement in healthcare policy consultation.

- **Commonwealth Nurses and Midwives Federation:** The federation emphasises the importance of continuing professional development for the nursing and midwifery workforce and supports linking development activities with re-licensing. It also participates in projects to promote quality education and practice for nurses and midwives.

The literature identified that while there are many competency tools and frameworks available for nurse leadership development, there are few studies that have evaluated the impact of leadership development programs.
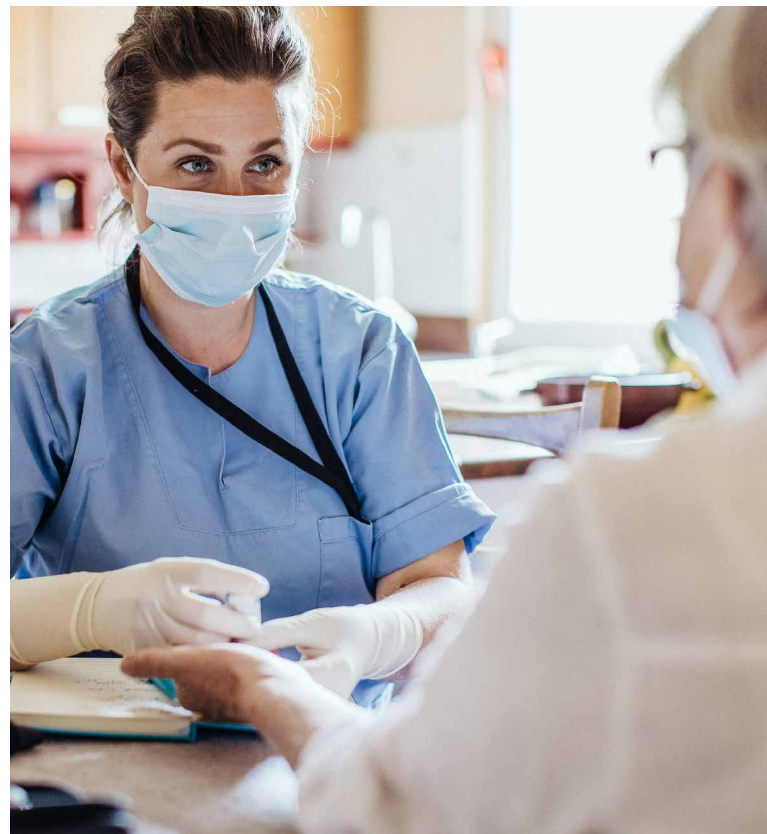
3. Education and training

The environment scans highlight the value placed on education and training in nursing, with the literature showing that each country and organisation recognises the professionalisation of nursing and the need for a highly qualified and well-trained workforce. They also highlight the strong correlation between career satisfaction and career progression and the availability of clear career pathways (Azwar et al. 2019; Karlsson et al. 2019). However, the literature acknowledges the challenges and opportunities of multiple entry points to nursing through qualifications to become assistants in nursing (AINs), enrolled nurses (ENs) and registered nurses (RNs), the relevant education requirements and ambiguities surrounding the scope of practice and role overlap. It also notes the challenges of engaging nurse students to complete their studies in cases of financial strain and of supporting nurses through the numerous available career pathways, noting that the diversity of career options often leads to confusion about how to establish these pathways (Halcomb et al. 2018).

Undergraduate education and the student experience

The scans reveal that undergraduate nursing education globally is diverse, with differing levels of qualification based on education. There are recommendations that the minimum education for nurses should be a bachelor's degree (Schnelli et al. 2024). Some countries rely on certificate- or diploma-level educated nurses to sustain their workforce (World Health Organization 2020). The literature identifies resulting challenges from ambiguities surrounding roles. These ambiguities involve scope of practice and role overlap with RN and EN positions. There are also concerns with limited career advancement opportunities and issues related to supervision and workload for RNs (McKenna et al. 2019).

The globalisation of nursing has led to a WHO recommendation to standardise nursing education (World Health Organization 2021). Examples of standardisation in nursing education are already emerging. For example, the Bologna Process, introduced in 1999, works to foster collaboration and ensure qualifications are recognised across borders. Its primary goal is to create the European Higher Education Area, allowing students and graduates (including in nursing) to move freely between countries

while maintaining the recognition of their prior qualifications. The outcome of the Bologna declaration has generated a consensus among European countries on nursing policies to achieve better and higher qualifications among the nursing workforce (Cabrera and Zabalegui 2020). For nursing, it has increased mobility and collaborative research efforts (Öhlén et al. 2011). However, ongoing research has identified that the nursing syllabus needs standardising because large variances beyond that of specific local healthcare needs occur (Humar and Sansoni 2017).

Challenges for undergraduate education are consistent across countries. Recognised by peak organisations, these include financial strain largely as a result of nursing students receiving no payment while studying and on placement. There are a range of similar initiatives that seek to support nurses while studying:

- The Royal Society of **Canada** suggests including micro-credentialling programs and offering free education, with permanent jobs through partnerships between nursing schools and hospitals (Canadian Federation of Nurses Unions 2022).

- In **Wales**, the RCN Prince of Wales Nursing Cadet Scheme increased funding for clinical placements, the introduction of the Blended Learning program (Royal College of Nursing 2023; Health Education England 2023), more student placements in Welsh universities and the NHS Wales Bursary Scheme to support healthcare students (Royal College of Nursing Wales 2022; Audit Wales 2023).

- The **Victorian** Government introduced scholarship programs to improve the supply of nurses by providing scholarships to around 17,000 people seeking a career in nursing, with funding up to $16,500 to support domestic students (Department of Health, Victoria, 2024).

- Newly qualified nurses and midwives in **Western Australia** are offered up to $12,000 in HECS-HELP support payments over 3 years to work in regional areas (Government of Western Australia, 2023).

- A $2.4 million investment by Health **Canada** was made to support newly graduated RNs with competency-based workshops and mentorship, aiming to improve recruitment and retention (Health Canada, 2023).

- Introduced in 2020, **England's** Learning Support Fund provides additional funding for healthcare students, including training grants, parental support and help with clinical placement costs (Garratt, 2023).
- **Ireland's** Enhanced Travel and Subsistence Scheme provides support for students attending clinical placements (Donnelley, 2022).
- **Northern Ireland** offers a one-off payment for nursing and midwifery students undertaking pre-registration programs (Launder, 2022).
- **Scotland's** Nursing and Midwifery Student Bursary was raised from £6,578 to £10,000 in 2021 to assist with accommodation and living expenses during studies (Scottish Government, 2018).
- Most nursing students in **Wales** are eligible to have their course fees fully funded along with a non-repayable bursary providing financial support throughout university (NHS Wales, 2023).

Clinical placements

The environment scans confirm that clinical placements are a standard hurdle for all nursing education across the countries scanned. Clinical placement requirements are inconsistent internationally; however, a clear consensus is that effective clinical placements are vital to the education of nurses.

In Australia, clinical placements are a critical concern, with students experiencing 'placement poverty' due to unpaid full-time work and lack of support, impacting on their ability to complete their studies (Schwartz 2019). Various state and territory strategies aim to increase access to nursing education, including subsidised study programs in Victoria and scholarships in the Northern Territory for clinical placements, especially targeting First Nations undergraduate nursing students (Department of Health, Victoria 2024; Northern Territory Government 2020).

Mandatory clinical placement hours range from 500 to 2,400 globally. However, the UK (2,300), India (4,656) and the Philippines (1,887) allow a portion of their clinical placement hours to be attained via simulation (Garrow et al. 2022). Australia's minimum clinical placement hours are 800 hours, and simulation cannot count towards those hours.

Simulation

The literature suggests that simulation has emerged as a valuable pedagogical tool in nursing education, offering students immersive learning experiences in a controlled environment. While challenges persist in achieving realism in certain areas of nursing simulation, other areas have shown that these challenges can be overcome (Olasoji et al. 2023). There is growing evidence around the use of simulated placements as a partial replacement of clinical placement. Propositions include that 11-30% of the required clinical placement hours could be replaced with simulated placements (Bridge et al. 2022). There are, however, requirements around the structure of the simulated placement to ensure it meets the standard for placement; for example, for time spent during simulation activity to be counted towards clinical training for nurses, the UK Nursing and Midwifery Council requires that participants have contact with a healthy or sick patient (UK Nursing and Midwifery Council 2018). Initiatives to invest in simulation include the following:

- **England:** In March 2021, the government announced that £15 million would be awarded to English universities to invest in new simulated training facilities and technologies for nursing and other health students (Pottle 2021). In 2024, the Nursing and Midwifery Council announced permanent standard changes that now allow up to 600 hours of simulated practice learning within the 2,300 practice learning hours students must complete (UK Nursing and Midwifery Council 2023).
- The collaboration between Lovisenberg Diaconal University College and Akershus University Hospital in **Norway** to develop virtual simulation training projects represents a successful initiative in adapting to digital platforms for simulation training, ensuring the continuation of high-quality healthcare education despite the challenges posed by the pandemic (Gjessing et al., 2023).

Transition to practice

When it comes to transitioning to practice, the environment scans and literature highlights research that shows the importance of providing nurses with a supportive transition period, typically lasting a year, as they transition into their roles (Rush et al. 2019). However, it also highlights the significance of considering the specific needs of different generations of nurses in contemporary practice to address attrition rates among new graduates (See et al. 2023). Several strategies to support new graduates during this transition have been identified. They include mentorship/buddy programs, structured orientation processes and ongoing professional development opportunities (Salem Alghamdi and Ghazi Baker 2020). However, a recent study identified that providing a culture of speaking up when needing help or support, one without bullying and incivility and one of seeking ongoing professional development, are the most important factors in creating a safe workplace, which in turn aids retention (Charette et al. 2023).

Examples of programs to support new graduates' transition to practice include the following:

- **Scotland's** 'Professional Practice Advisers' for newly qualified nurses involves leveraging the expertise of recently retired nurses and midwives by engaging them as mentors for newly qualified staff (Scottish Government, 2018). This pilot program aims to facilitate knowledge transfer and support the professional development of new health professionals, addressing both workforce development and the retention of expertise within the healthcare sector.

- In the **United States**, nurse residency programs are designed to bridge the gap between educational preparation and the realities of working in the healthcare environment. In 2019 the State of New York established the Citywide Nurse Residency Program (City of New York, 2023). As the nation's first city-led nurse residency consortium, the program offers on-the-job training and other supports to recently graduated, newly hired RNs.

- Both the **Australian College of Nursing** and the **Australian Primary Health Care Nurses Association** currently offer voluntary transition to practice programs in Australia. The Australian Primary Health Care Nurses Association's Transition to Practice Program (Australian Primary Health Care Nurses Association, 2024) provides an education framework and support for newly graduated nurses or nurses who need support in the primary health care setting. The Australian College of Nursing's program (Australian College of Nursing 2024), prepares nurses for a confident entry into the workforce by complementing graduate programs. These programs could be operationalised to assist with the roll out of a more comprehensive transition to practice to better ready Australia's newly qualified nurses.

- In **Canada**, the National Nurse Residency Program and the Nursing Graduate Guarantee aim to support newly graduated RNs in their transition from classroom to workplace (Health Canada, 2023).

Postgraduate study

The environment scans show that postgraduate education in nursing is a developing area.

- **Netherlands:** The CZO Flex Level project, funded by the Dutch Health Ministry, aimed to redesign the postgraduate nursing landscape using entrustable professional activities to allow easy transition between specialties. This program provides a flexible, competency-based model for career development and nursing competence (Pool et al. 2023).

- **Northern Ireland:** Investment in the post-registration nursing master's program is designed to develop leadership skills in new nurses and support workforce retention. A review of post-registration education and commissioning is underway and expected to be completed by 2025 (Northern Ireland Department of Health 2020).

- **England:** The government has committed to increasing the domestic production of the nursing workforce, with specific targets in place to build nursing training places by 2028–29 and 2031–32 (Garratt 2023). The *National preceptorship framework for nursing* provides national standards for preceptorship (Health Education England 2022).

- **Scotland:** NHS Education for Scotland was commissioned to allocate funding to support education for an extra 500 advanced nurse practitioners (NHS Education for Scotland 2021).

Conclusions and relevance for Australia

The environment scans conducted across 13 countries (not including Australia) and 5 organisations offer detailed insight into the current state of the nursing workforce, specifically in these comparative environments and, more broadly, globally.

While there are vitally important nuances in the way health care is delivered by nurses in the differing environments included in these scans, there is much to be gained from better understanding how they have developed and implemented strategies to address nursing workforce shortages. For Australia, the insights garnered provide a valuable foundation for informing the development of a National Nursing Workforce Strategy that is both responsive and resilient.

The scans suggest a holistic approach focusing on dynamic workforce planning is essential. This includes forecasting to accurately predict nursing needs, alongside crafting clear and appealing career pathways for professional growth. Examples of this long-term planning can be found in the NHS (England, Scotland and Northern Ireland).

Recruitment and retention strategies must prioritise innovative campaigns aimed at: diverse and non-traditional populations of culturally diverse communities, Indigenous people and men; enhancing job satisfaction through improved work conditions; and flexible work schedules. With the global nursing shortage, most countries and organisations see a 'grow your own' nursing workforce strategy as being key to ensuring successful long-term recruitment and retention of nurses. While a 'grow your own' strategy is not currently viable for most countries examined in these environment scans, a robust recruitment and retention system of IQNs will continue to be the status quo to fill the gaps.

The scans reveal that education and training should be bolstered globally with increased funding, incorporation of digital health in curricula and enriched clinical placements supported by robust partnerships and simulation-based learning.

Advancements in technology necessitate enhancing digital literacy among nurses and investing in workforce management technologies, ensuring nurses are well equipped to navigate a technologically advanced healthcare landscape. Collectively, these measures will pave the way for a resilient, diverse and future-ready nursing workforce, adept at meeting Australia's evolving healthcare demands.

Appendix: Literature search methodology

The research question guiding the environment scans was:

> *What are the key nursing workforce challenges and associated initiatives in [country/organisation]?*

Method overview: Environment scans

The scans were conducted in 2 phases. In phase 1, a scan for relevant academic, peer-reviewed research articles published between 2018 and 2023 was undertaken according to the criteria outlined below. Phase 2 built on the findings from the peer-reviewed publications and included a targeted search of grey literature and relevant online platforms. This process was carried out for each of the 14 countries and 5 organisations. Expert opinion was also used to identify the relevant literature for this phase. The Joanna Briggs Institute method informed the search strategy (Khalil et al. 2016). After removing duplicate papers, titles and abstracts were read to check the inclusion criteria were met. Papers or other literature were removed if they were outside the inclusion criteria.

Inclusion and exclusion criteria

- Language – English
- Years – publication date 2018–2023
- The studies were not assessed for methodological quality.
- Types of studies included original research using any methodology.
- Literature reviews, news listings, position statements and opinion pieces were excluded from phase 1.

Types of populations

- Included were registered nurses, nurse practitioners, enrolled nurses, nursing assistants, assistants in nursing and military nurses.
- Excluded were students, volunteers and other health professionals.

Concept – retaining staff

- Included: see Table 1, line S2 – retention, job satisfaction.
- Excluded: see Table 1 – anything else.

Context 1 – country

- Included: see Table 1, line S3 – relevant country.
- Excluded: see Table 1 – joint studies with other countries explained in text.

Context 2 – influences on S2, retention, job satisfaction

- Included: see Table 1, lines S5 and S6 – relevant country
- Excluded: diversity and AI found only in Context 1 and 2 unrelated papers.

Search strategy

Systematic searches of databases CINAHL, EBSCO, MEDLINE, INFORMIT, MEDNAR and Google Scholar were conducted. The keywords employed are shown in Table 1, contributed by a panel expert in the review topic. Search terms and strategies were applied to be as broad as possible, and combinations can be seen in the table below.

Table 1: Search terms and strategies

Category	Search terms
S1 Population	Nurses (nursing workforce, workforce strategy, nurse practitioners, enrolled nurses, nurse associates, assistants in nursing)
S2 Concept	Retention (job satisfaction), recruitment
S3i Context – country or organisation	XXXXX [relevant country or organisation]
S4 Context – ageing workforce	Ageing, workload, turnover, burnout, staff distribution
S5 Context – education, technology, artificial intelligence	Education, training, technological advancements, artificial intelligence (AI)
S6 Context – effects on health services	Effects on health services, climate change, COVID, diversity, inclusivity, geographic distribution, primary care, mental health, prisons/corrections, disability
S7 = S1 + S2 + S3i + S4 + S5 + S6	
S8 = S7 + Med Nar	
S9 = S7 + Google Scholar	

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