Health Workforce Shortage in Australia Post COVID-19- International Perspectives

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Summary

Investment in the health workforce, as outlined in the Sustainable Development Goals target 3.C,[1] delivers health benefits and fosters economic growth. As Australia grapples with the lasting effects of the COVID-19 pandemic, a recent report published by the National Health and Medical Research Council (NHMRC) has cast a spotlight on the pressing issue in the country's healthcare sector: a severe shortage of health professionals.[2] The pandemic has underscored the weakness in Australia's healthcare system and over-reliance on overseas health professionals, emphasizing the imperative need for strategic measures to tackle this challenge. In June 2023, the Australian Medical Association (AMA) also echoed these concerns about workforce shortage.[3] This 'Data Insights' presents a timely overview of the investment in workforce, stock, and distribution of health professionals in Australia, specifically focusing on doctors and nurses.

Key messages

- Australia is experiencing a severe shortage of health professionals during and after the COVID-19 pandemic.
- The issue of health workforce shortage is also distributional, with a high concentration of health workforces in metro areas despite burden of diseases being higher in non-metro areas.
- Significant variations exist across the public and private sectors in which doctors and nurses work. More doctors practice in the private sector, unlike nurses, who mainly work in the public sector.
- Within OECD countries, Australia has a young health workforce. However, the increasing shares of older health professionals also suggest that our workforce is ageing.
- Australia is highly dependent on overseas health workforces to address the shortage gaps.
- There has been a growth in the number of female doctors in the last decade, but females are still under-represented in some specialties.
- As the population aging progresses in Australia, higher demand for health services is expected. Thus, retention and recruitment policies are critical to make the health system resilient and to ensure the workforce meets the growing demand.

TEQSA Provider ID: PRV12002 (Australian University) | CRICOS Provider Code: 00120C

Stock of health workers by occupation

As shown in **Table 1**, Australia had 688,555 nationally registered health workers working across 16 major health occupations in 2022 across both public and private sectors. The number of nurses and midwives are reported together. Over 50% of the health workforce stock were nurses and midwives. The second largest occupation group was doctors (medical practitioners) at 16 percent. Following these two groups were physiotherapists (4.95%), psychologists (4.76%), pharmacists (4.14%), occupational therapists (3.61%), and dental practitioners (3.34%).

Table 1. Size and composition of APHRA regulated health professions in Australia, 2022.

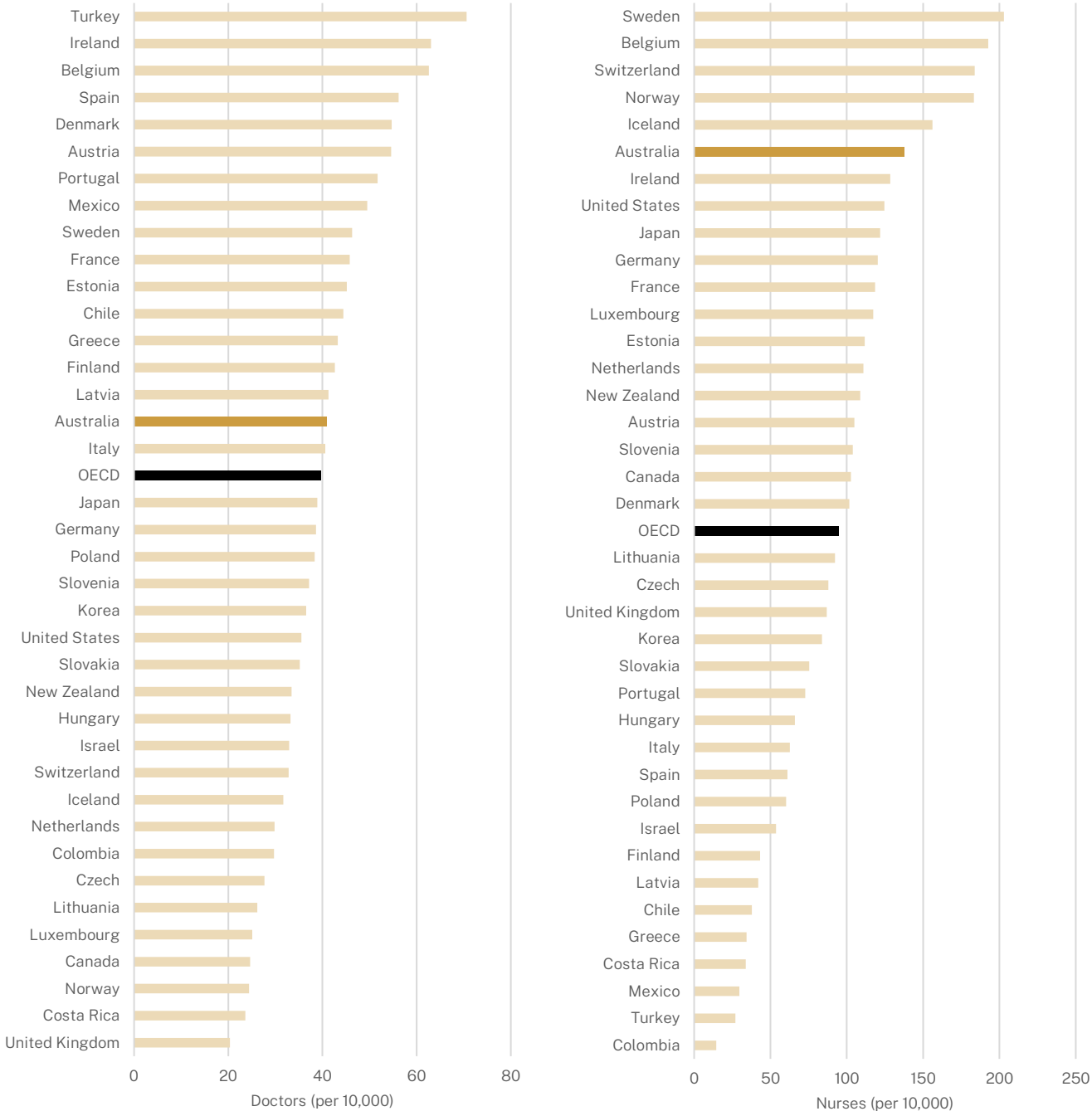
Professions	Stock of qualified and registered	Occupation group as % share of overall stock
Aboriginal & Torres Strait Island Health Practitioners	664	0.10%
Chiropractors	5,376	0.78%
Chinese Medicine Practitioners	4,075	0.59%
Dental Practitioners	22,964	3.34%
Medical Practitioners	**111,908**	**16.25%**
Medical Radiation Practitioners	16,450	2.39%
Nurses and Midwives	**372,759**	**54.14%**
Occupational Therapists	24,829	3.61%
Optometrists	6,002	0.87%
Osteopaths	2,866	0.42%
Pharmacists	28,535	4.14%
Physiotherapists	34,063	4.95%
Podiatrists	5,316	0.77%
Psychologists	32,773	4.76%
Paramedicine Practitioners	19,975	2.90%
Total	**688,555**	**100.00%**

Source: NHWDS (2024).

In 2022, the nurse-to-doctor ratio was 3.33, which has decreased since 2013. Compared to other OECD countries, Australia has a relatively high density of doctors and nurses, with 41 doctors and 138 nurses per 10,000 population (**Figure 1**).

Given the increased trend in the size of nursing workforce and in response to the shortage of doctors, many countries have developed more advanced roles for nurses, e.g., nurse practitioners. Evaluations of nurse practitioners from the US, Canada, and the UK show that advanced practice nurses can improve access to services and reduce waiting times while delivering the same quality of care as doctors for patients with minor illnesses and those requiring routine follow-up.[4] Despite having advanced nurse roles introduced to Australia in the 2000s, various environmental, policy, and workforce issues require attention and reform to enable the optimal development of this profession in Australian general practice, as it has in other OECD countries.[5]

Figure 1. Numbers of doctors and nurses per 10,000 populations, OECD countries (2021 or nearest year available).



Source: OECD (2023).

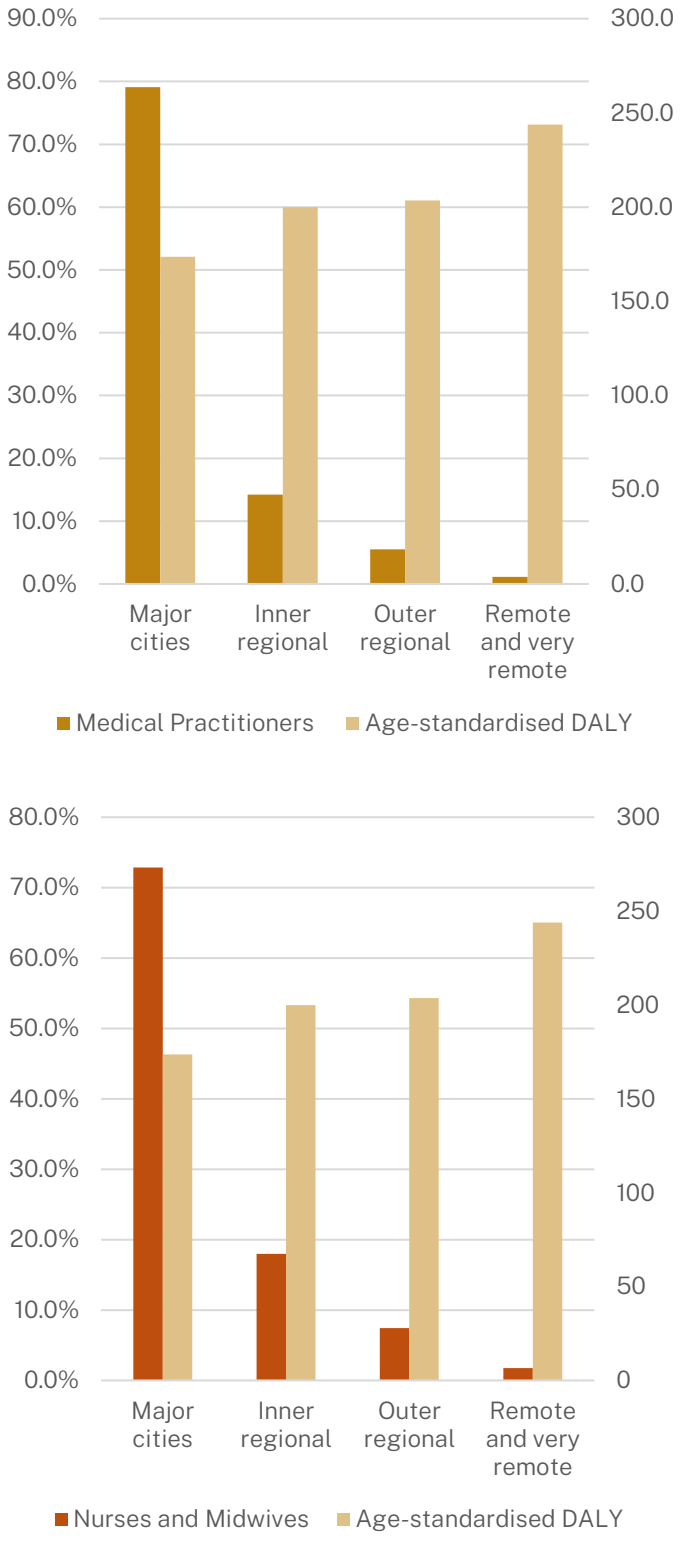
Geographical distribution

The distribution of the health workforce in areas where they are most needed is critical for access to care. However, most professionals work in major cities, with the number of practitioners declining steadily by remoteness, although people living outside of major cities have increased health risks.[7]

Existing evidence points to the difficulties in recruitment and retention of health workers as the main reasons.[8,9] Health workers in rural and remote areas face multiple barriers compared to their peers in major cities. e.g., limited access to career development, lower housing standards, more restricted education and employment opportunities for other family members, and social isolation.[10]

The rural-urban gap in Australia is significant. In 2018, the total burden of diseases measured as Disability-adjusted life years (DALYs) increased with remoteness. For example, the disease burden in remote and very remote areas was 1.5 times higher than in major cities.[11] However, as of 2022, over 70 percent of the Australian doctors and nurses practiced in major cities (**Figure 2**). In the last five years, rural health workforces have been increasing by an average of three percent. However, the growth rates for rural and remote areas were still substantially slower than metropolitan areas.

Figure 2. Distribution of health workforce (%) and burdens of diseases (DALYs), by remoteness



Source: NHWDS (2024) and AIHW (2021).

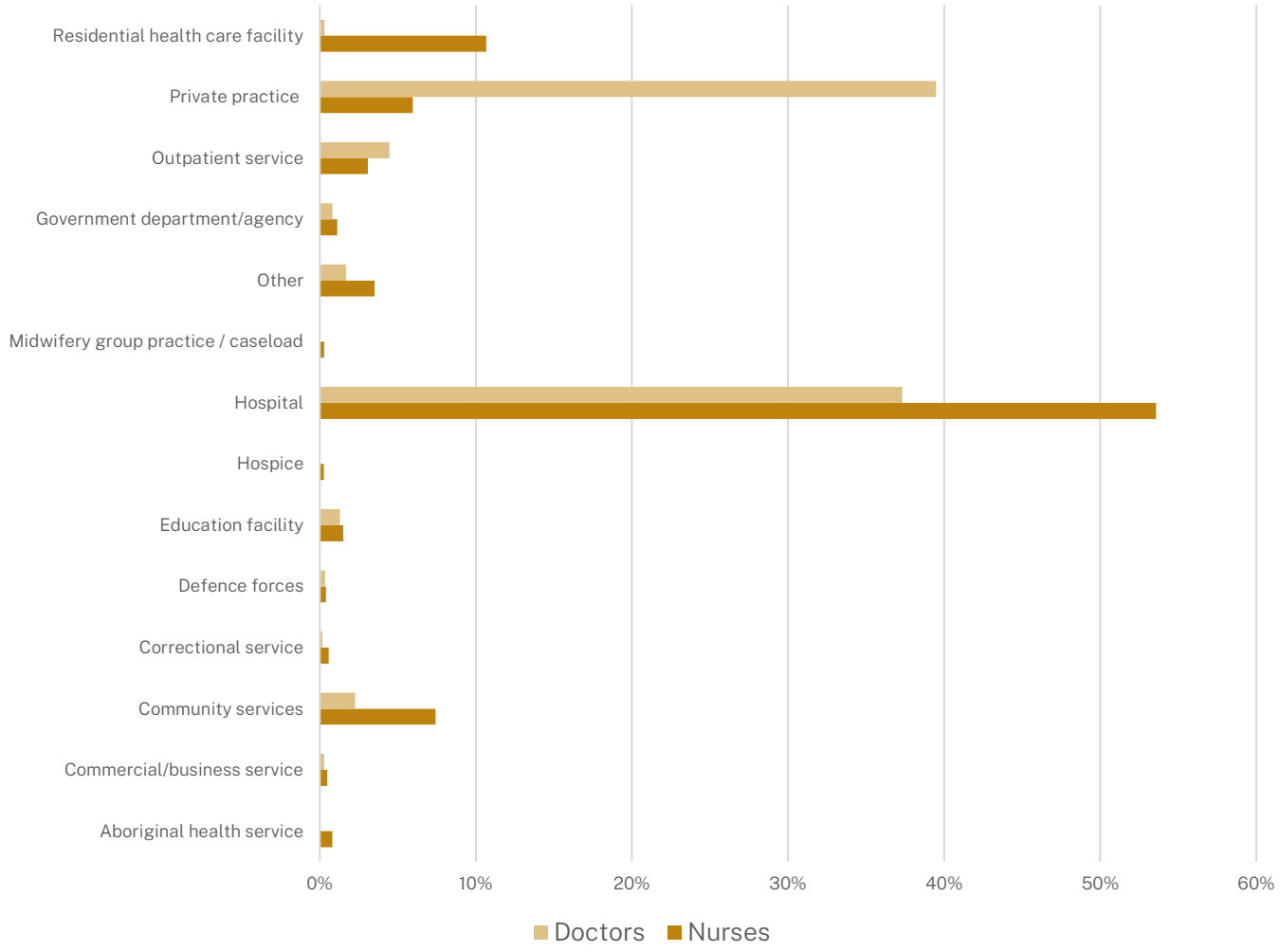
Distribution of health workforce across settings

Significant variations exist across the settings in which doctors and nurses work (**Figure 3**). In 2022, over 85 percent of the doctors worked in private practices and hospitals, with over half of this group practicing in private settings. Of the clinical settings, less than ten percent practiced in residential facilities, outpatient services, community services, and Aboriginal health services.

This pattern is substantially different from the nursing workforce. Over 50 percent of the nursing workforce was employed by hospitals. Less than seven percent of nurses worked in private practices, including nurses employed by private GPs and specialists. Nurses were also the primary health care providers in residential, community, and Aboriginal health services.

In the last decade, fewer doctors have worked in private practice, and more have switched to outpatient services. Between 2013 and 2022, these sectors' average annual growth rates were between 3.55 and 4.38 percent. Fewer nurses worked in residential facilities, private practices, outpatient services, and hospitals after the COVID-19 pandemic. Specifically, the proportion of nurses working in residential care reduced by seven percent in 2021. Although the nursing workforce has recovered to the pre-pandemic level in most sectors, the proportion of nurses in residential facilities continued to decline.

Figure 3. Distribution of doctors and nurses, by job setting, 2021.



Source: NHWDS (2024).

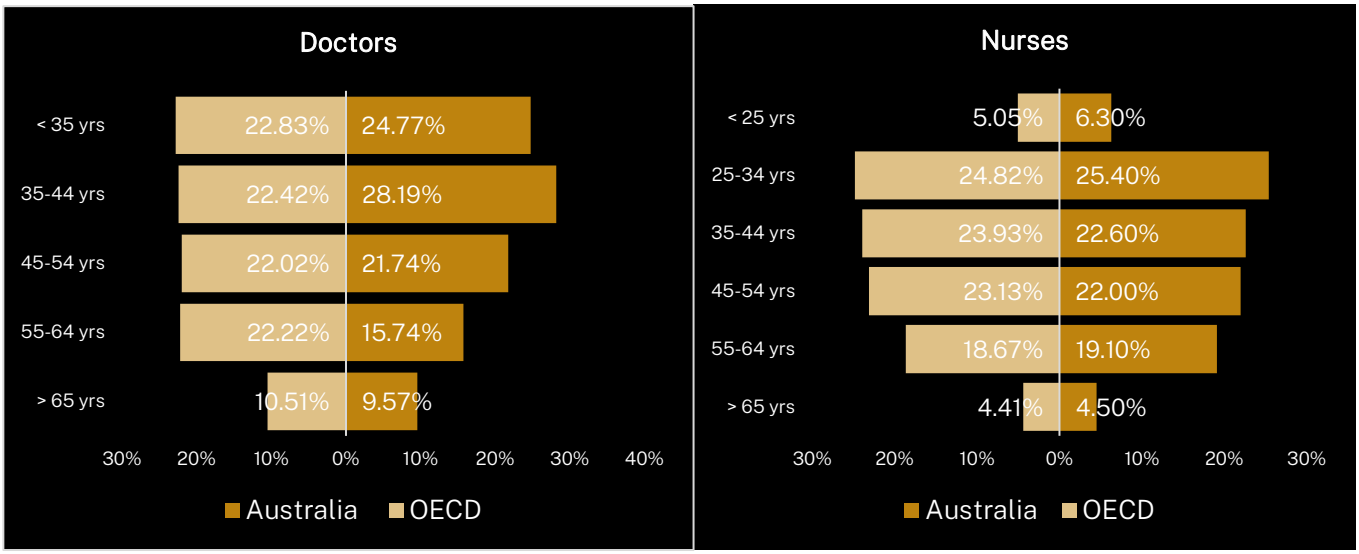
Health workforce characteristics

Age

Within OECD countries, Australia has a young health workforce, especially doctors. In 2021, over 50% of doctors and nurses were below 45 (**Figure 4**). Less than ten percent of the medical practitioner workforce continued to work after 65. This number was even lower in the nursing workforce, with only 4.50 percent working past age 65.

Over the last ten years, the age profile of the doctors remained stable. In contrast, the proportion of younger nurses (< 35 years old) and older nurses (aged 55 and above) has increased over the same period. Multiple factors may be at play influencing the trend in age profiles of the nursing workforce. For example, the rapid expansion of nursing training places at the university in 2009/2010 potentially led to a boom in younger nurses,[12] and the ageing of the workforce. However, more research is needed to understand the determinants of such changes in the health workforces over the years.

Figure 4. Age profiles of Australian doctors and nurses, Australia vs. OECD.



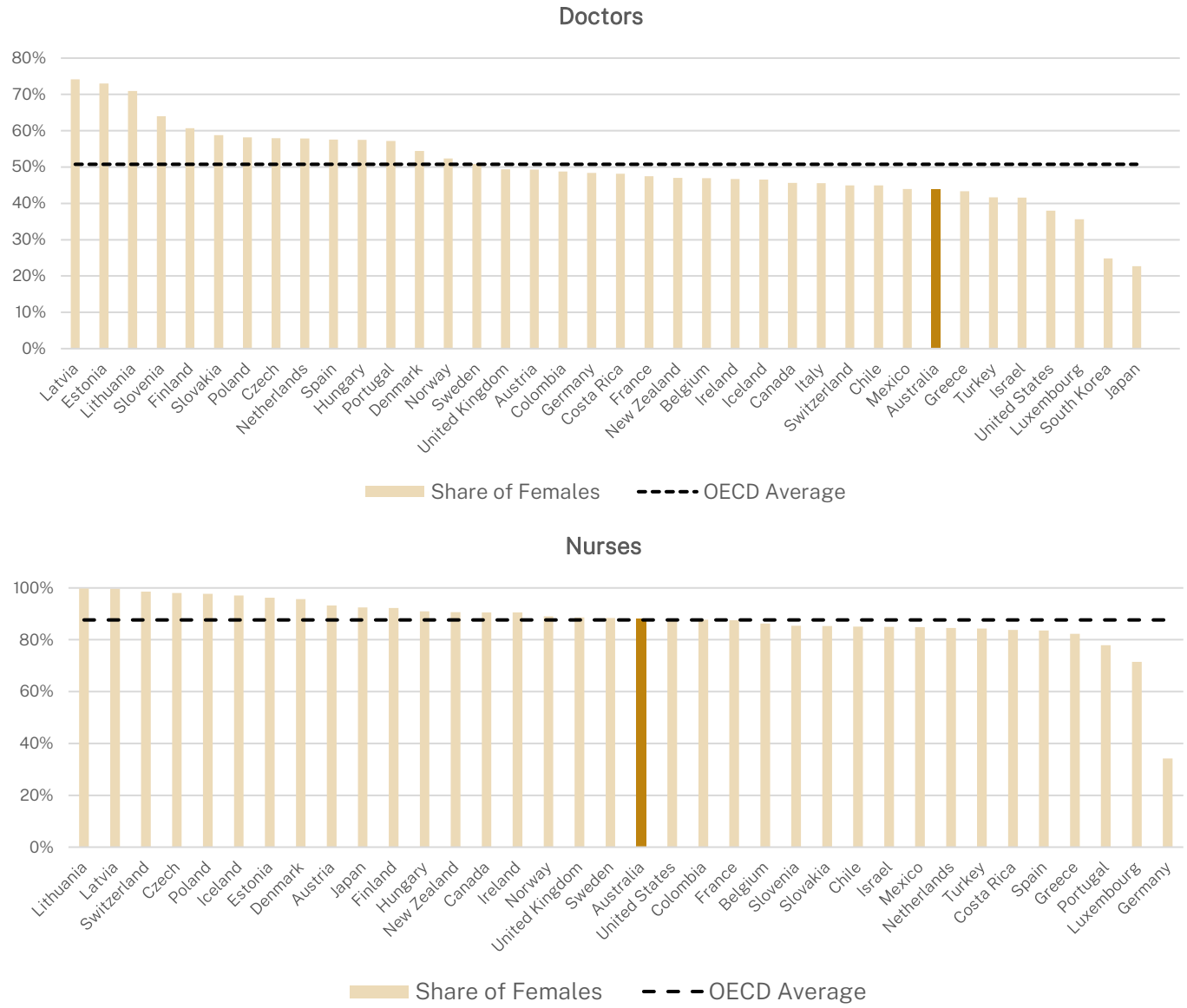
Source: OECD, and WHO (2023).

Gender

The gender gap remains an issue in Australia. According to the latest OECD data, nearly 90% of nurses are females, double the proportion of female doctors. Of the OECD countries, Australia is one of the ten countries with the lowest share of female doctors (**Figure 5**). Using the OECD data, we estimate the percentage of female doctors increased at an annual rate of 2%, whereas female nurses decreased over time at a yearly rate of 0.2 percent. A comparable trend was observed in Australia based on the 2022 NHWDS.

However, there are considerable variations in the share of female doctors across the primary field of specialties. Specialties such as dermatology, obstetrics and gynaecology, paediatrics, palliative medicine, pathology, public health, rehabilitation medicine, and sexual health have more female doctors. There were low female representations (<30%) in addiction medicine, intensive care, occupational and environmental medicine, ophthalmology, sport and exercise medicine, and surgery. Surgery had the lowest female representation, with only 15 percent of surgeons being female in the workforce in 2022. This pattern can be explained by the higher proportion of women leaving surgical training than men,[13] despite the evidence that women might be more able applicants on entry.[14] A list of possible factors have been found to contribute to such patterns, including role models, institutional support, gender discrimination and harassment, sleep deprivation, interactions with senior peers, pregnancy and childbirth, childcare, leave availability, mental health, fear of repercussion, and lack of pathways for independent and specific support.[15] Policymakers and practitioners should consider these gender gaps in future workforce planning policies.

Figure 5. Share of female doctors and nurses, by OECD countries.



Source: OECD and WHO (2023).

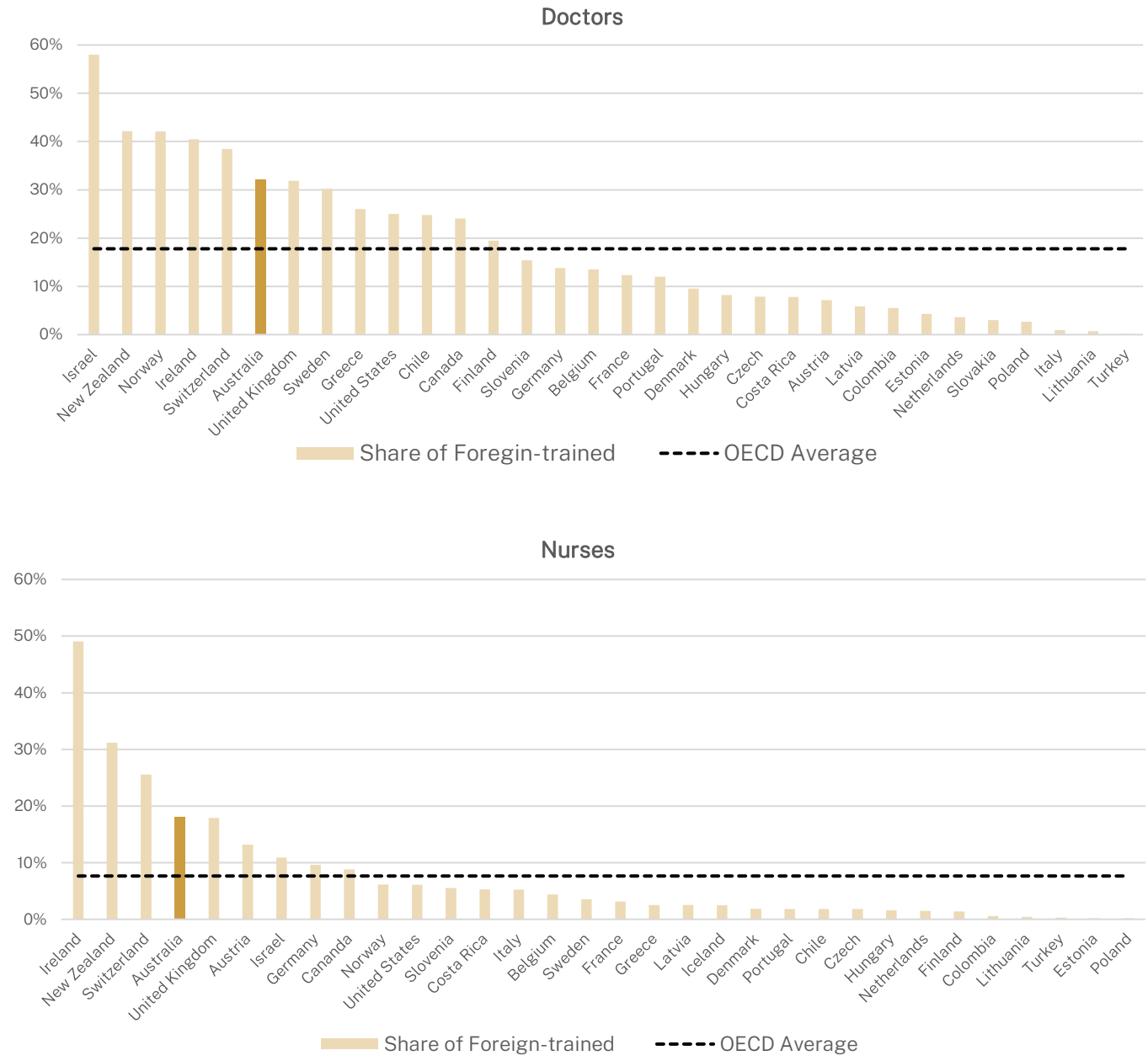
Places of training

Due to the health workforce shortages, Australia relies substantially on foreign-trained workforces to sustain the healthcare system. Australia is in the top 10 OECD countries with the highest shares of foreign-trained health professionals (**Figure 6**).

Over 30% of Australian doctors are foreign-trained, while only 18% of Australian nurses are foreign-trained. In some specialties, the split of foreign-trained and domestic-trained doctors was almost equal. For example, 50% of doctors in intensive care medicines were foreign trained in 2022.

Although importing health professionals can address the short-term shortages, there are concerns that heavy reliance on an overseas workforce is not a sustainable solution in the long run,[16] and in some cases be breaching our international obligations in ethical recruitment.[17] Thus, future health workforce planning strategies should consider balancing between domestic and foreign-trained workforce.

Figure 6. Shares of foreign-trained doctors and nurses, by selected OECD countries.



Source: OECD and WHO (2023).

Concluding remark

Although the Australian health system performed well during the COVID 19 pandemic across OECD countries, the pandemic has amplified one of our significant vulnerabilities: health workforce shortages. Gender gaps in the health workforce remain significant, with Australia ranks 31st in the percentage of female doctors. Australia is also highly dependent on the overseas trained workforce, which made the system vulnerable during the pandemic due to restricted international travel. As the population ages, higher demand for health services is expected. Thus, retention and recruitment policies are critical to make the health system resilient and ensure the workforce meets the growing demand. Multiple institutional and individual factors can shape the Australian health workforce, and more research is needed to understand the dynamics among these factors, and how they can be addressed.

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