

# HEALTH WORKFORCE 2040

## ALLIED HEALTH

---

Department of Health

DRAFT



Tasmanian  
Government

# CONTENTS

<b>HEALTH WORKFORCE 2040</b>	<b>1</b>
<b>Allied health</b>	<b>1</b>
<b>Executive summary</b>	<b>3</b>
Key findings	4
<b>Shaping the workforce</b>	<b>5</b>
Workforce snapshot	5
Workforce size and growth	7
The National Disability Insurance Scheme	8
Geographic distribution of the allied health workforce	10
Sector distribution	12
Average hours	13
Workforce indicators	13
High priority professions for planning	14
<b>Education and training</b>	<b>16</b>
<b>Enhancing culture and wellbeing</b>	<b>18</b>
Diversity and inclusion	18
Aboriginal employment	18
Age	19
Gender	20
<b>Fostering innovation</b>	<b>21</b>
Changing workforce models	21
Optimising, extending and delegating work	21
Telehealth	22
<b>Data and methodology</b>	<b>23</b>
Data collected	23
Data treatment	23
High priority professions for planning	24
<b>Figures</b>	<b>25</b>
<b>Appendix A: Allied health workforce profiles</b>	<b>26</b>

## EXECUTIVE SUMMARY

---

*Together we provide access to services that help Tasmanians to lead healthier lives.*

More than 2,800 registered allied health professionals work across Tasmania in 2018 to enhance and maintain the physical, psychological, cognitive and social functions of their patients. The allied health workforce plays a vital role in meeting the health needs of the Tasmanian community. An ageing population, rising incidence of chronic disease and the introduction of the National Disability Insurance Scheme are expected to result in an increase in demand for allied health professionals.

This document supports *Health Workforce 2040: Strategy*, along with *Health Workforce 2040: Medicine* and *Health Workforce 2040: Nursing and Midwifery*. It is an analysis of Tasmania's registered allied health workforce and some self-regulated allied health professions in 2018 and provides insights into future health workforce needs, challenges and opportunities.

There are more than 30 allied health professions ranging from radiation therapists to counsellors to speech pathologists and oral health professionals. Therefore, even though they are grouped together, the nature of the work is diverse, as are the people who work in the professions and the challenges and opportunities they face. Because of this variety, generalisations across the allied health workforce need to be made and read with some caution.

The term 'allied health' was coined in the 1990s and is now regularly used at operational and policy levels.<sup>1</sup> Many allied health professions are regulated under the National Registration and Accreditation Scheme (NRAS) or are self-regulated by professional associations. This report will primarily explore the nationally registered professions but also includes workforce profiles for some of the larger self-regulated professions and acknowledges the contributions that all allied health professions make to the Tasmanian community. See Figure 1 for the full list of allied health professions analysed in this document, and Appendix A for the set of 2018 allied health workforce profiles.

Allied health interventions can often lessen or remove the need for medical treatments. With shorter training times and lower salaries than medical practitioners, allied health professionals are key to an agile and cost-effective workforce that can meet the needs of an ageing community with higher rates of chronic illness.

Our experiences in 2020 with the COVID-19 pandemic have demonstrated the importance of having a flexible workforce that can respond to rapidly changing environments and health care demands. The importance of supporting education and training has also been highlighted in upskilling health professionals in areas of demand. Additionally, COVID-19 has driven rapid developments in the way our health professionals work, with telehealth being used in new and innovative ways to provide support for patients.

---

<sup>1</sup> Department of Health 2013, *8.2 Allied health workforce*, Australian Government, Canberra, ACT, viewed 22 May 2019, <<https://www.health.gov.au/internet/publications/publishing.nsf/Content/work-review-australian-government-health-workforce-programs-toc~chapter-8-developing-dental-allied-health-workforce~chapter-8-allied-health-workforce>>. *Health Workforce 2040* | Allied health

## KEY FINDINGS

With a variation in professions and community need, comes a variation of challenges and opportunities. The following findings, however, have significant impact across allied health professions and the community. The:

- Allied health workforce in Tasmania is lower in size per head of population to the national average, however, this varies by profession and by region.
- North West region faces workforce challenges across most allied health professions, when comparing the number of professionals per 100,000 population to national rates.
- Opportunity to complete entry-level training in allied health professions is very limited in Tasmania.
- Opportunity to participate in professional development is also limited in Tasmania, meaning qualified allied health professionals are usually required to travel interstate to engage in professional development.
- National Disability Insurance Scheme's impact on Tasmania's allied health workforce will need ongoing monitoring; to ensure community needs are being met and staff are well-trained and supported.

Along with these overall themes, **occupational therapy** has been identified as a high priority for workforce planning; using the indicators detailed in the *Workforce indicators* section.

# SHAPING THE WORKFORCE

*The overall supply of registered and employed allied health professionals in Tasmania is less than the national average. While the workforce has been growing, the overall supply and geographic distribution of allied health professionals remains a challenge.*

## WORKFORCE SNAPSHOT

<b>Employed headcount statewide</b>	2,831
<b>Average age</b>	42.4 years
<b>Proportion of workforce over 60 years</b>	11%
<b>Gender break-down</b>	66% F   34% M
<b>Proportion of clinical hours worked in sector</b>	37% public   63% private
<b>Average hours worked in the week</b>	34.0 hours

Source: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data (2018)

Note: Snapshot is of the registered allied health professions

Figure 1 lists the allied health professions included in this report. The data used to analyse the nationally registered professions captures the Tasmanian workforce across both the public and private sectors. The data used to analyse the self-regulated professions captures the public sector workforce only. The small professions (with a headcount of three or less) have not been profiled separately but are included in the overall numbers where appropriate.

Throughout this document, there is analysis of the number of health professionals in Tasmania per 100,000 population compared to the Australian rate. This report does not provide an assessment of how many is the right number of practitioners per population, rather it provides an observational assessment of supply relative to the national average. This report provides a detailed picture of the Tasmanian health workforce in 2018 – comparing it to the national workforce and broad community needs. This offers a starting point for future planning, a framework for understanding the current workforce risks and provides insights into future needs. Further insight into the health needs of Tasmania can be found in Primary Health Tasmania's Needs Assessment Report 1 July 2019 – 30 June 2022<sup>2</sup>.

<sup>2</sup> Primary Health Tasmania, *Needs Assessment Report 1 July 2019 – 30 June 2022*, Primary Health Tasmania, Hobart, TAS viewed 11 Aug 2020, <<https://www.primaryhealthtas.com.au/wp-content/uploads/2019/07/Needs-Assessment-Report-1-July-2019-30-June-2022-1.pdf>>.  
Health Workforce 2040 | Allied health

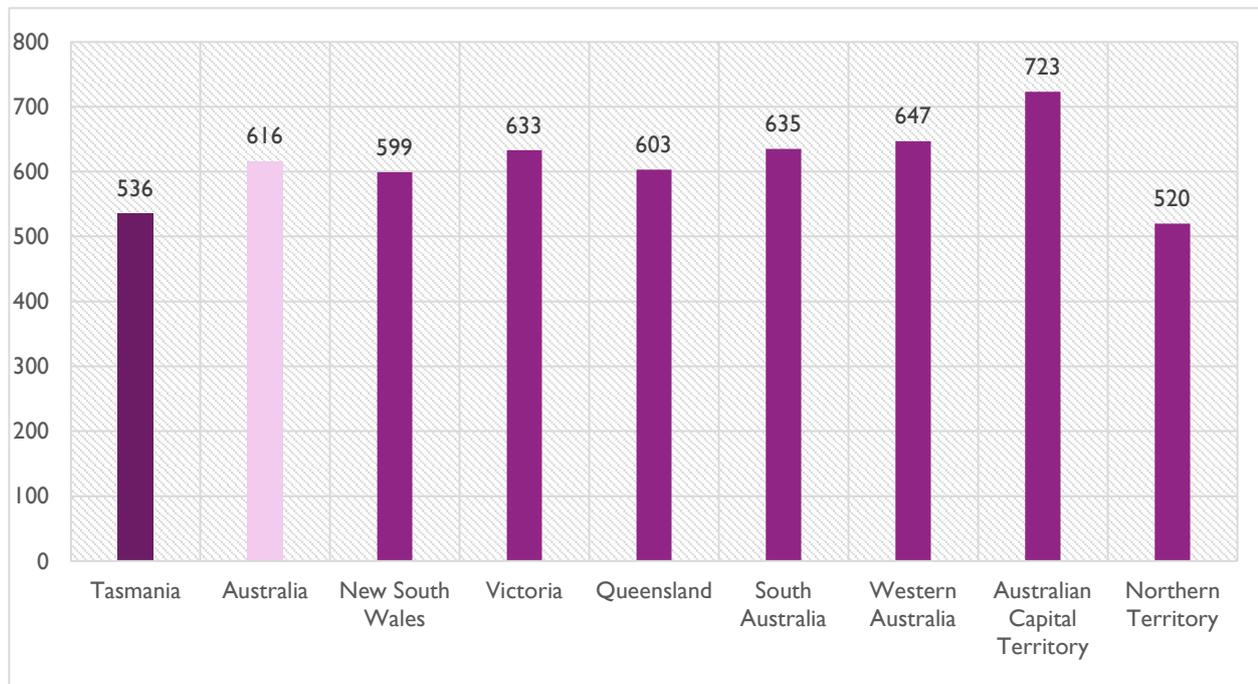
**Figure I Allied health professions**

<b>Profession</b>	<b>Regulation</b>	<b>Workforce profile included in Appendix A</b>
Audiologists	Self-regulated profession	Yes - public sector profile
ATSI Health practitioners	Registered profession	No - included in overall, registered numbers
Cardiac physiologists/cardiology health professions	Self-regulated profession	Yes - public sector profile
Chinese Medicine Practitioners	Registered profession	No - included in overall, registered numbers
Chiropractor	Registered profession	No - included in overall, registered numbers
Counsellors	Self-regulated profession	Yes - public sector profile
Dental hygienists	Registered profession	Yes - public and private sector profile
Dental prosthetists	Registered profession	Yes - public and private sector profile
Dental therapists	Registered profession	Yes - public and private sector profile
Dentists	Registered profession	Yes - public and private sector profile
Oral health therapists	Registered profession	Yes - public and private sector profile
Dietitians	Self-regulated profession	Yes - public sector profile
Environmental / Public health officers	Self-regulated profession	Yes - public sector profile
Epidemiologists	Self-regulated profession	Yes - public sector profile
Genetic counsellors	Self-regulated profession	Yes - public sector profile
Mammographic technologists	Self-regulated profession	Yes - public sector profile
Medical physicists	Self-regulated profession	Yes - public sector profile
Medical scientists	Self-regulated profession	Yes - public sector profile
Diagnostic radiographers	Registered profession	Yes - public and private sector profile
Nuclear medicine technologist	Registered profession	Yes - public and private sector profile
Radiation therapists	Registered profession	Yes - public and private sector profile
Sonographers	Self-regulated profession	Yes - public sector profile
Occupational therapists	Registered profession	Yes - public and private sector profile
Optometrists	Registered profession	Yes - public and private sector profile
Orthotists and prosthetists	Self-regulated profession	Yes - public sector profile
Osteopaths	Registered profession	No - included in overall, registered numbers
Perfusionists	Self-regulated profession	Yes - public sector profile
Pharmacists	Registered profession	Yes - public and private sector profile
Physiotherapists	Registered profession	Yes - public and private sector profile
Podiatrists	Registered profession	Yes - public and private sector profile
Psychologists	Registered profession	Yes - public and private sector profile
Social workers	Self-regulated profession	Yes - public sector profile
Speech pathologists	Self-regulated profession	Yes - public sector profile

## WORKFORCE SIZE AND GROWTH

There were 2,831 employed allied health professionals in regulated professions in Tasmania in 2018, providing a density of allied health professionals to population of 536 per 100,000 population (Figure 2). This is lower than Australia as a whole and all other jurisdictions except the Northern Territory.

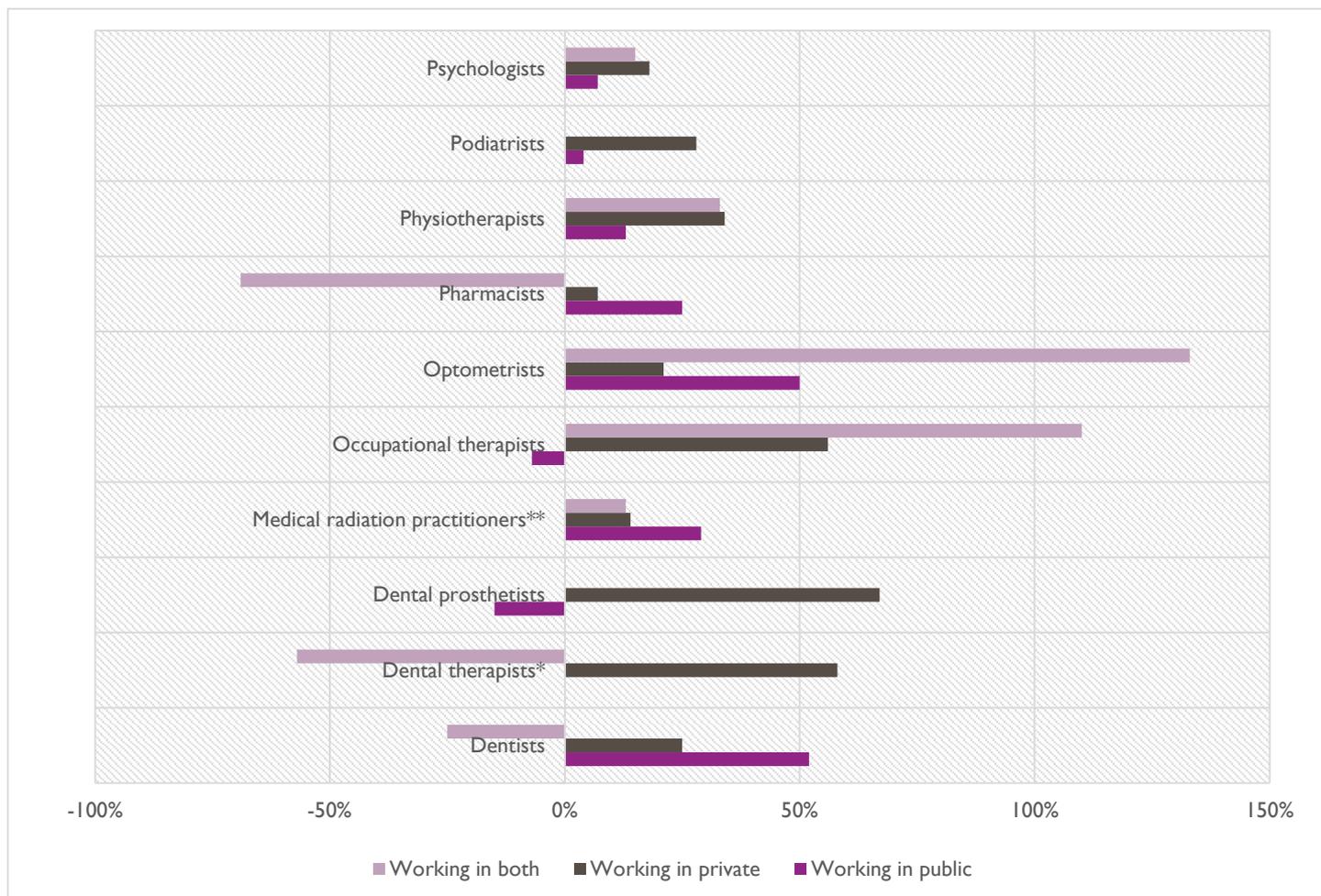
**Figure 2 Employed allied health practitioners in regulated professions per 100,000 population 2018, Tasmanian, Australia and jurisdictions**



Source: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data (2018)

In the period 2013-18, the Tasmanian registered allied health workforce grew 18 per cent (based on a headcount of registered, employed professionals). Over the same period, the full-time equivalent (FTE) growth was also 18 per cent.

**Figure 3 Percentage headcount change in allied health professions, by sector 2013-18, TAS**



\* Includes dental therapists, dental hygienists, oral health therapists

\*\* Includes diagnostic radiographers, nuclear medicine technologists and radiation therapists

Source: National Health Workforce Data Set including Tasmanian Unit Record Data (2018)

Overall the growth was even across the public and private sectors with both experiencing a 19 per cent increase in clinical hours from 2013 to 2018, however at the profession level there were differences. The occupational therapy workforce, for example, experienced strong growth in the private sector but a decline in public sector. This may reflect the introduction of the National Disability Insurance Scheme (NDIS) in Tasmania and the workforce’s adaptation to it.

## THE NATIONAL DISABILITY INSURANCE SCHEME

The National Disability Insurance Scheme (NDIS) commenced in Australia on 1 July 2016, with the objective to provide funding for supports and services for Australians aged 65 and under who have permanent or significant disability. Essentially, the NDIS is a market-style system where government funding goes to the client, instead of the disability service providers, with the intention of shifting control to the client and allowing the client to use the funds to choose the provider they want. Approximately 4.3 million Australians experience disability.<sup>3</sup>

<sup>3</sup> National Disability Insurance Agency 2019, *What is the NDIS?* National Disability Insurance Agency, Canberra, ACT, viewed 22 May 2019, <<https://www.ndis.gov.au/understanding/what-ndis>>.

---

*‘Disability experience is a complex interaction between the health condition and environmental and personal factors. People’s health is increasingly conceptualised in terms of their quality of life, what activities they can do, in what areas of life they are able to participate as they wish, and what long-term supports they need for living in the community.’ – Australian Institute of Health and Welfare<sup>4</sup>*

---

Allied health professions, such as physiotherapy, occupational therapy, speech pathology, dietetics, psychology, social work, podiatry and prosthetics and orthotics, work across health, education and disability sectors to deliver services and supports for people with a disability and / or health conditions.

The introduction of the NDIS has stimulated the market and resulted in increased demand for these allied health professions in the disability sector. While the tertiary education sector is increasing intakes to respond to demand in the medium to long-term, the current demands have resulted in workforce availability challenges and, in some places, thin markets to deliver services in all sectors, particularly rural, regional and remote areas.

Consultation for *Health Workforce 2040* indicated that a key workforce challenge of the NDIS was the reported movement of qualified professionals into NDIS roles (and out of non-NDIS roles).

DRAFT

---

<sup>4</sup> Australian Institute of Health and Welfare 2004, *Disability and its relationship to health conditions and other factors*, Australian Institute of Health and Welfare, Canberra, ACT, viewed 16 July 2019, <<https://www.aihw.gov.au/reports/disability/disability-relationship-health-conditions/contents/table-of-contents>>.

## GEOGRAPHIC DISTRIBUTION OF THE ALLIED HEALTH WORKFORCE

There are ongoing difficulties with the geographic distribution of Tasmania's health workforce, particularly in medicine and allied health professions. Figure 4 highlights the distribution disparity of the allied health workforce, across the regions; with the South having 618.1 allied health professionals per 100,000 population (which is slightly higher than the Australian rate), compared to the North West with 407.4 allied health professionals for every 100,000 people.

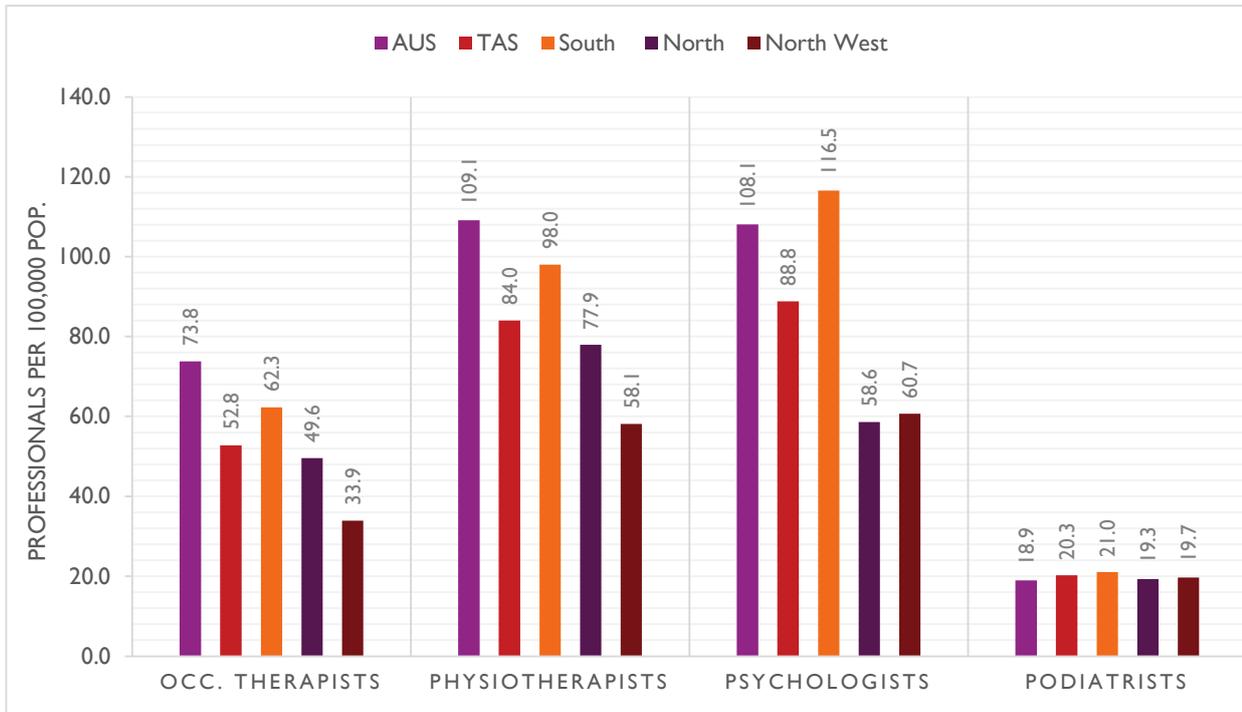
**Figure 4 Geographic distribution of all registered allied health professionals (grouped) per 100,000 population (headcount), 2018**



Source: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data (2018)

At the profession level, this pattern continues. In Figure 5 we can see that the Tasmanian rate of occupational therapists, physiotherapists and psychologists is considerably lower than the Australian rate and then increases in the South before dropping off again in the North and North West. For occupational therapists, the North West has less than half the Australian rate of professionals; with 33.9 per 100,000 professionals compared to 73.8. There are some professions that don't follow this trend and have a more even spread across regions, including podiatry (Figure 5) and dental prosthetists.

**Figure 5 Geographic distribution of selected allied health professionals per 100,000 population (headcount), 2018**



Source: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data (2018)

Consistent with the allied health workforce generally, the public sector was distributed disproportionately across the regions in 2018 – with a skew to the South and away from the North West (Figure 5).

**Figure 6 Geographic distribution of all allied health professionals (FTE) working in the public sector per 100,000 population, TAS 2018**



Source: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

Note: this data includes registered and non-registered allied health professions

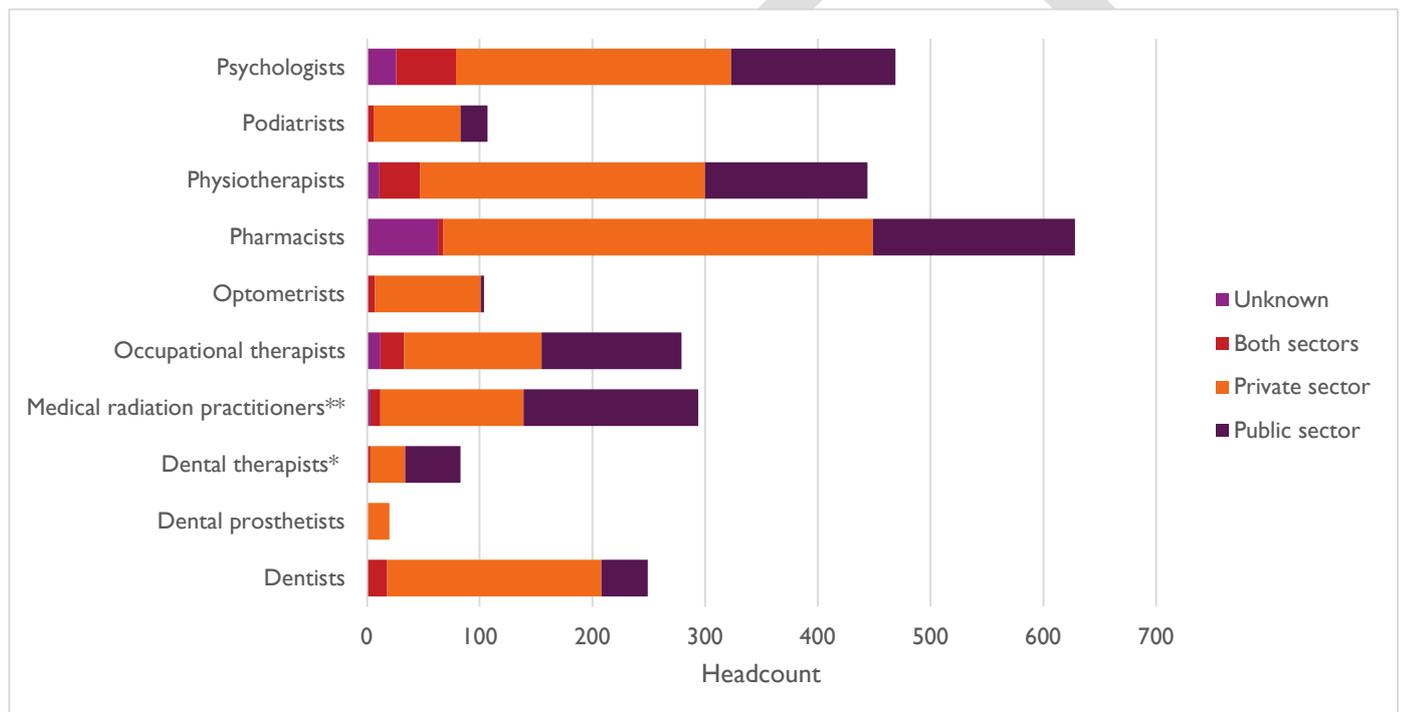
## SECTOR DISTRIBUTION

In 2018, there were 2,831 registered allied health professionals employed statewide in the public and private sectors. There is also a significant allied health workforce working in non- or self-regulated allied health professions. There is limited reliable national data for non-regulated or self-regulated professions.

Tasmania's public allied health workforce is primarily employed across the Department of Health (DoH) and the Tasmanian Health Service (THS). Figure 7 shows the headcount of allied professionals working in public, private or both sectors, with optometry having the largest disparity between employment in the public and private sectors.

Allied health professionals also work in areas outside of health including in disability, education, justice and children and youth services. Other than those included in the National Registration and Accreditation Scheme, these professionals were out of scope of this report.

**Figure 7 Employed headcount of allied health professionals by sector, TAS 2018**



\* Includes dental therapists, dental hygienists, oral health therapists.

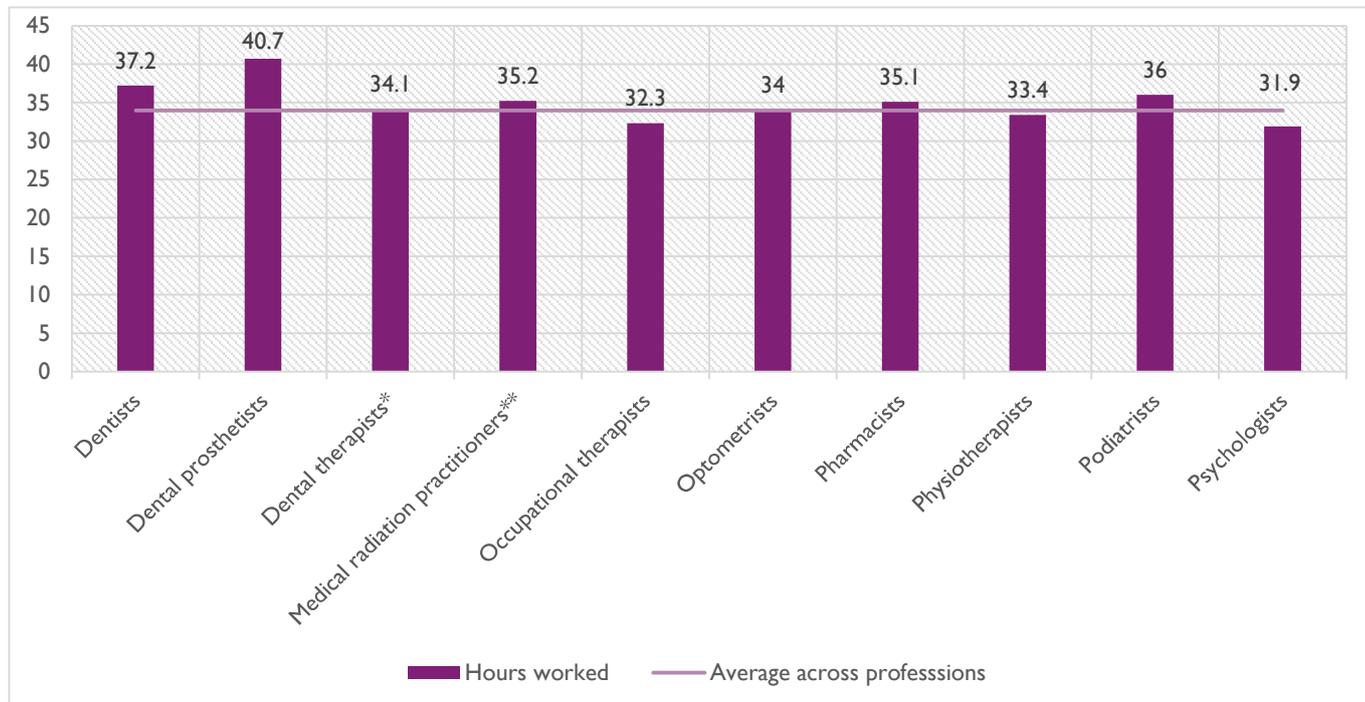
\*\* Includes diagnostic radiographers, nuclear medicine technologists and radiation therapists.

Source: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data (2018)

## AVERAGE HOURS

Registered allied health professionals reported working an average of 34.0 hours per week in 2018 – more than nurses and midwives, but less than medical practitioners. As Figure 8 shows, dental prosthetists report working the most hours per week (40.7) and psychologists the fewest (31.9).

**Figure 8 Average hours worked by registered allied health professionals, TAS 2018**



\* Includes dental therapists, dental hygienists, oral health therapists.

\*\* Includes diagnostic radiographers, nuclear medicine technologists and radiation therapists.

Source: National Health Workforce Data Set including Tasmanian Unit Record Data (2018)

## WORKFORCE INDICATORS

In Figure 9, a series of 'workforce indicators' have been developed using relevant workforce metrics to compare professions and help identify areas of concern and planning priorities. The workforce indicator metrics are:

- proportion of workforce over 60 years of age
- training availability in Tasmania
- headcount of professionals in Tasmania and its regions per 100,000 compared to the Australian rate
- the workforce size, in headcount.

Broadly, you can see that when a profession scores positively against a workforce indicator, the shading is light blue. A neutral or slightly concerning score is represented by mid-blue shading and a more concerning score is represented with dark blue shading.

The workforce indicators are largely drawn from the National Health Workforce Data Set (2018) and include the workforces in both the public and private sectors. This enables a detailed assessment of where there may be current and future workforce risks in Tasmania.

Acknowledging the chart cannot be used in isolation, it does give a graphic summary of the challenges facing some specialties, specialties facing multiple challenges, systematic issues across specialties and can inform policy priorities.

The chart highlights:

- the lower supply of allied health professionals in Tasmania compared to the Australian average.
- local, entry-level training opportunities in allied health are very limited in Tasmania.
- the North West region faces workforce challenges across most allied health professions, when comparing the number of professionals per 100,000 population to national rates.

### **Proportion of the workforce over 60**

The workforce that is over 60 years of age is considered to be a high risk of exiting the workforce within the next few years. Those workforces with high numbers require planning to ensure future workforce sustainability. The allied health professions score reasonably across the measure, with dentists having the highest proportion over 60 years (18 per cent).

### **Training availability in Tasmania**

There are links between the availability of training in Tasmania and recruitment. This indicator is used in allied health to identify training availability for professional entry. As shown in Figure 9, pharmacy and psychology are the registered allied health professions with training available locally.

### **Workforce density**

The workforce density indicators do not provide an assessment of how many is the right number of practitioners per population, rather they provide an observational assessment of supply relative to the national average. There is an acknowledged complexity in that if the national supply of a profession is not considered to be adequate, we are basing the indicator on a starting point of relative undersupply. Figure 9 illustrates the lower density of allied health professionals in the North and North West compared to the South, particularly in dentistry, occupational therapy and physiotherapy.

The region of work is self-reported by the health professional. In some cases, the region is not known. This means that in some instances the density of practitioners to population will be under-represented.

### **Workforce size**

The workforce size is included as an indicator to serve as a reminder that small professions will always be vulnerable, with even small movements in the workforce like a retirement, leave or resignation having a significant impact on the availability of a health profession and service.

## **HIGH PRIORITY PROFESSIONS FOR PLANNING**

Some of the workforce indicator metrics in Figure 9 have been used to determine which professions are a high priority for planning. For allied health, each profession was assigned a score based on:

- proportion of the workforce over 60 years of age
- availability of entry-level training in Tasmania
- Tasmanian headcount of professionals per 100,000 population.

In addition, any profession where Tasmania's professional headcount per 100,000 population was lower than the national rate by at least 25 per cent, was automatically deemed a priority profession. Using the scoring system, **occupational therapy** was deemed a high priority for workforce planning.

There have been some changes in these workforces since that time. Subsequent operational workforce planning will identify where further workforce planning may not be required. Future analyses will demonstrate the changes.

Further details on the methodology for determining the high priority workforces for planning can be found in the *Data and methodology* chapter.

**Figure 9 Allied health professions with workforce indicators**

Registered allied health profession	Over 60 years old	Training in Tas	Headcount of professionals per 100,000 population				Workforce size
			TAS	S	N	NW	
Dentists	18%	No	47.3	53.4	44.1	36.6	250
Dental prosthetists	14%	No	8.0	8.5	6.9	8.0	42
Dental therapists*	6%	No	15.7	14.0	17.2	17.9	83
Medical radiation practitioners**	12%	No	55.7	59.7	55.2	46.5	294
Occupational therapists	6%	No	52.8	62.3	49.6	33.9	279
Optometrists	8%	No	19.7	22.1	16.5	17.9	104
Pharmacists	8%	Yes	118.9	136.7	106.2	92.0	628
Physiotherapists	9%	No	84.0	98.0	77.9	58.1	444
Podiatrists	5%	No	20.3	21.0	19.3	19.7	107
Psychologists	17%	Yes	88.8	116.5	58.6	60.7	469

\* Includes dental hygienists, dental therapists and oral health therapists

\*\* Includes diagnostic radiographers, nuclear medicine technologists, and radiation therapists

**Key**

Over 60 years old	0-10%	11-24%	25% plus
Entry-level training available in Tasmania	Yes		No
Headcount of professionals per 100,000 population compared to Aus rate	At or above	Below	Significantly below (by 25% or more)
Workforce size (using headcount)	More than 10		10 or less

## EDUCATION AND TRAINING

*Training pathways into allied health professions in Tasmania are limited. This has a significant impact on the workforce and its capacity to meet the health needs of the community.*

Most allied health professionals are educated to a bachelor's or master's degree level. Psychology and pharmacy are the only professions with a compulsory postgraduate requirement, resulting in longer training times. Figure 10 lists non-regulated, self-regulated and registered allied health professions and the availability of entry-level training offered in Tasmania.

This has a significant impact on attracting a workforce to Tasmania and limits opportunities for Tasmanians who want to train in skilled professions but may not have the capacity – financial or otherwise – to move interstate.

**Figure 10 Allied health training offered in TAS compared to headcount of professionals (per 100,000 population), 2018**

Allied health profession	Entry-level training offered in Tasmania?	Headcount of professionals in TAS compared to AUS per 100,000 population
Audiologists	No	-
Cardiac physiologists	No	-
Counsellors	Yes	-
Dental prosthetists	No	Higher
Dentists	No	Lower
Dental therapists†	No	Higher
Dietitians	No	-
Environmental health officers	Yes	-
Genetic counsellors	No	-
Medical physicists	No	-
Medical scientists	Yes	-
Medical radiation practitioners*	No	Lower
Sonographers	No	-
Occupational therapists	No	Lower
Optometrists	No	Lower
Orthotists and prosthetists	No	-
Perfusionists	No	-
Pharmacists	Yes	Higher
Physiotherapists	No	Lower
Podiatrists	No	Higher
Psychologists	Yes	Lower
Social workers	Yes	-
Speech pathologists	No	-

† Includes dental hygienists, dental therapists and oral health therapists

\* Includes diagnostic radiographers, nuclear medicine technologists and radiation therapists

Note that AUS density data is not available for non- and self-regulated professions

Source: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data (2018)

In addition, professional development courses are also limited, meaning that qualified allied health professionals are often required to travel interstate to engage in professional development. A lack of professional development opportunities could also be a deterrent for a qualified allied health professional accepting a position in Tasmania.

Education and training are core to an effective health workforce, as well as being an indicator of wellness in the community more broadly, with socioeconomic disadvantage having a strong link to poor health outcomes. Only 43 per cent of eligible Tasmanians completed school to year 12 in 2015, considerably less than in Victoria (78 per cent) and in Australia generally (72 per cent)<sup>5</sup>. The development of additional education and training pathways is an opportunity to both build an allied health workforce and provide opportunities for young Tasmanians to enter health professions. The University of Tasmania is actively exploring its range of allied health course offerings.

Education and training play an important role in upskilling and reorienting the workforce to manage emerging health needs, like responding to the COVID-19 pandemic. An example of this is in upskilling physiotherapists to assist in critical care environments with ventilatory therapies.

With less allied health professionals per 100,000 population than Australia (see Figure 4), and an increasing demand for chronic illness care, it is essential that Tasmania's community needs are supported by an education framework allowing for career entrance, progression and change.

Tasmania is not unique in having an ageing population and an increase in chronic illness. Consultation for this report indicated that it is already difficult to attract graduates back from the mainland to fill Tasmanian allied health positions (particularly senior and clinical leadership roles) – it is likely that without a focus on a 'home grown workforce' of some description, this will become increasingly difficult as other states and territories are also targeting the allied workforce to meet health service and NDIS-related demand.

Developing local courses is not without complexities. Where will students complete the practical components of their course? Will there be jobs for all graduates, even if there is demand from the community? As shown in Figure 10, podiatry does not offer training in Tasmania, yet it retains a higher than national average level of professionals, and is a reasonably well distributed workforce statewide, suggesting that entry level local training is perhaps not the only solution.

---

<sup>5</sup> Ahmed, S, Shaw, K, Tye, I, Ho, V, Edwards, L, Kneebone, J, 2017, *Primary Health Tasmania Needs assessment: health intelligence report 2017-18*, Primary Health Tasmania, Hobart, TAS viewed 17 May 2019, <<https://www.primaryhealthtas.com.au/wp-content/uploads/2018/07/Needs-assessment-2017-18.pdf>>.

# ENHANCING CULTURE AND WELLBEING

*Organisational culture represents the shared ways of thinking, feeling and behaving in health care organisations.”<sup>6</sup> Good leadership and an inclusive culture are key features of high performing organisations that are workplaces of choice.*

Workplace culture, workforce wellbeing and inclusion are interconnected. When these building blocks are healthy, the organisation will be better equipped to deliver high quality health services to the community.

## DIVERSITY AND INCLUSION

Having a diverse set of personal traits, backgrounds and experiences can be a key driver of workforce innovation with diversity fostering ‘innovation and creativity through a greater variety of problem-solving approaches, perspectives, and ideas’<sup>7</sup>. Ever increasing expenditure on health cannot be sustained, therefore it is essential to develop ideas, efficiencies and technologies to continually improve workforce productivity as well as health outcomes. A diverse workforce can indirectly facilitate this innovation.

## ABORIGINAL EMPLOYMENT

In the 2016 Census, 4.6 per cent of people living in Tasmania identified as Aboriginal and/or Torres Strait Islander<sup>8</sup>. Of registered Tasmanian health professionals, 1.1 per cent of allied health practitioners identified as Aboriginal in 2018.

It is not known what proportion of the Tasmanian public health sector identifies as Aboriginal as this information is not recorded on employment, however it is estimated that Aboriginal people make up around 2.9 per cent of the Tasmanian State Service.

Actions to increase the number of Aboriginal health professionals in the Tasmanian health workforce, aligned with the Tasmanian State Service *Aboriginal Employment Strategy to 2022*<sup>9</sup> and the Cultural Respect Framework<sup>10</sup> are urgently required.

### Aboriginal health practitioners

Aboriginal health practitioners are a registerable allied health profession requiring a minimum 12-month certificate IV program of study approved by the Aboriginal and Torres Strait Islander Health Practice Board of Australia.

<sup>6</sup> Mannion, R & Davies, H 2018 ‘Understanding organisational culture for healthcare quality improvement’, *BMJ* Vol. 363, pp. k4907, London, UK, viewed 23 July 2019, <[https://risweb.st-andrews.ac.uk/portal/en/researchoutput/understanding-organisational-culture-for-healthcare-quality-improvement\(a79882bd-9b34-49db-ba32-45b8ad617fc2\)/export.html](https://risweb.st-andrews.ac.uk/portal/en/researchoutput/understanding-organisational-culture-for-healthcare-quality-improvement(a79882bd-9b34-49db-ba32-45b8ad617fc2)/export.html)>.

<sup>7</sup> Hunt, V, Layton, D & Prince, S 2015, *Diversity Matters*, McKinsey & Company, New York, NY, USA, viewed 24 May 2019, <<https://www.mckinsey.com/business-functions/organization/our-insights/why-diversity-matters>>.

<sup>8</sup> Australian Bureau of Statistics 2018, *2011.0 - Aboriginal and Torres Strait Islander population, 2016*, Australian Government, Canberra, ACT, viewed 22 February 2019, <[www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2011.0~2016~Main%20Features~Aboriginal%20and%20Torres%20Strait%20Islander%20Population%20Article~12](http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2011.0~2016~Main%20Features~Aboriginal%20and%20Torres%20Strait%20Islander%20Population%20Article~12)>.

<sup>9</sup> Tasmanian State Service 2019, *Aboriginal Employment Strategy to 2022*, Tasmanian Government, Hobart, TAS, viewed 15 July 2019, <[http://www.dpac.tas.gov.au/\\_\\_data/assets/pdf\\_file/0010/463087/DPAC4456\\_Aboriginal\\_Employment\\_Strat\\_210\\_x\\_210\\_WEB.pdf](http://www.dpac.tas.gov.au/__data/assets/pdf_file/0010/463087/DPAC4456_Aboriginal_Employment_Strat_210_x_210_WEB.pdf)>.

<sup>10</sup> Australian Health Ministers’ Advisory Council 2016, *Cultural respect framework 2016-2026 for Aboriginal and Torres Strait Islander health*, Australian Health Ministers’ Advisory Council, Canberra, ACT, viewed 4 April 2019, <[http://www.coaghealthcouncil.gov.au/Portals/0/National%20Cultural%20Respect%20Framework%20for%20Aboriginal%20and%20Torres%20Strait%20Islander%20Health%202016\\_2026\\_2.pdf](http://www.coaghealthcouncil.gov.au/Portals/0/National%20Cultural%20Respect%20Framework%20for%20Aboriginal%20and%20Torres%20Strait%20Islander%20Health%202016_2026_2.pdf)>.

Aboriginal health practitioners contribute to the coordination and provision of health care delivery to Indigenous individuals, families and communities.

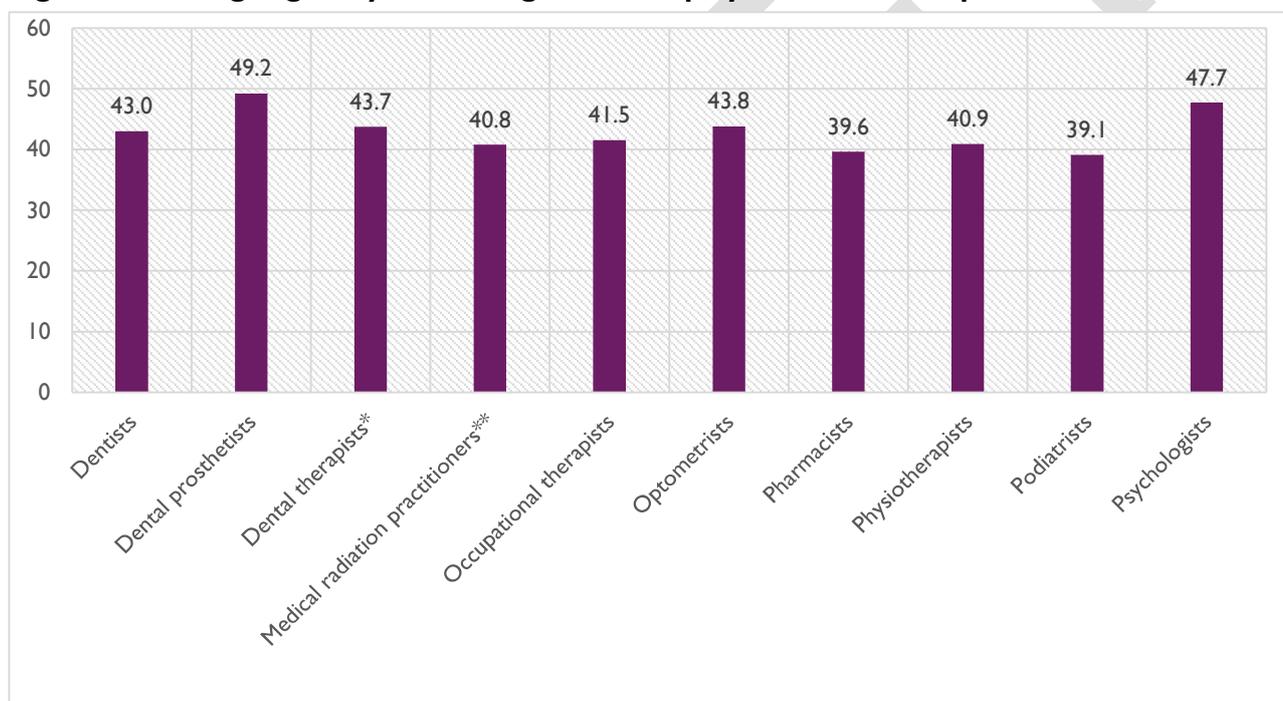
The role of an Aboriginal health practitioner may involve facilitating communication between Aboriginal and/or Torres Strait Islander people and other health workers to improve the quality of services provided to the community, informing clients of health care services appropriate to them, recording information, providing counselling and health and cultural education.

It is important to note that employers do not always require health workers that are carrying out a job function similar to that of an Aboriginal health practitioner to use the Aboriginal health practitioner title – in which case they are not required to be registered (and will not show up in registration-based data).

## AGE

The registered allied health workforce was the youngest of the three workforce groups in Tasmania with an average age of 42.4 years in 2018 (Figure 11).

**Figure 11 Average age, in years, of registered employed allied health professionals, TAS 2018**



\* Includes dental therapists, dental hygienists, oral health therapists

\*\* Includes diagnostic radiographers, nuclear medicine technologists and radiation therapists

Source: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), based on employed workforce

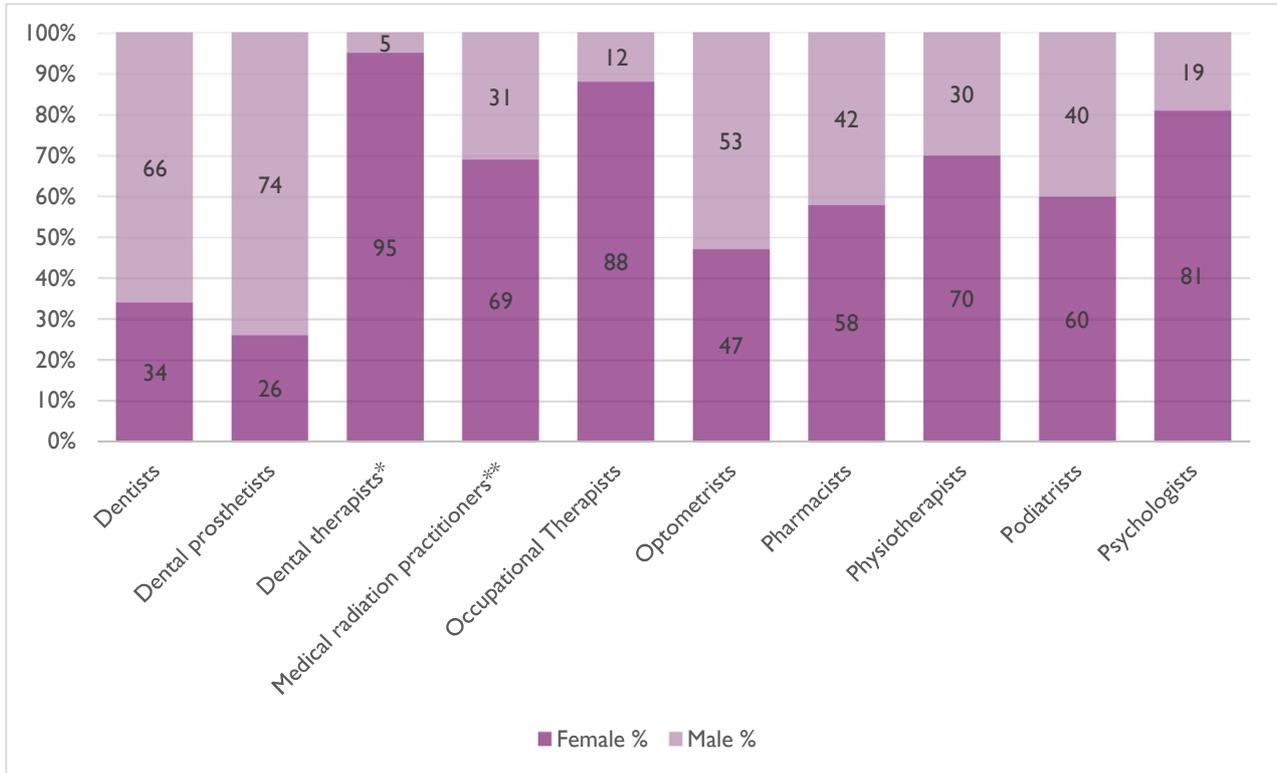
This compared to nurses and midwives with an average of 45.7 years and medical practitioners with an average of 46.6 years. Contrary to Tasmania's population trends, the allied health workforce is getting younger, dropping slightly from 42.9 years in 2013 to 42.4 years in 2018. In 2018, 11 per cent of the allied health workforce were over the age 60, with dental/oral health therapists/hygienists and podiatrists having the lowest proportion (5 per cent) and dentists having the highest proportion (18 per cent).

Consultation with allied health managers in the public sector indicated that early career professionals are often attracted to work in Tasmania by the scope of work on offer and opportunities. Further career opportunities then become limited and higher turnover is experienced in the mid-career years.

## GENDER

In 2018, 66 per cent of the employed allied health workforce in Tasmania reported their gender as female; this rate varies significantly between professions as shown in Figure 12, with optometrists having a reasonably balanced gender profile (53 per cent male and 47 per cent female) compared with the grouped dental and oral health therapists/hygienists who were 95 per cent female.

**Figure 12 Gender of registered, employed allied health professionals, TAS, 2018 (per cent)**



\* Includes dental therapists, dental hygienists, oral health therapists

\*\* Includes diagnostic radiographers, nuclear medicine technologists and radiation therapists

Source: National Health Workforce Data Set including Tasmanian Unit Record Data (2018)

# FOSTERING INNOVATION

*Reform and innovations in healthcare are necessary to ensure a high-quality, sustainable and affordable health workforce into the future.*

## CHANGING WORKFORCE MODELS

The increasing incidence of chronic and complex illness makes it more important than ever to ensure that the right workforce is undertaking the right care for the right patient. It will become increasingly necessary to work in teams to provide comprehensive joined up care. The allied health workforce is an integral part of providing this care and workforce models need to continue to evolve to support effective care for the community.

The concept of a national Allied Health Rural Generalist (AHRG) Pathway has been progressing since 2013, involving both state and commonwealth governments. There is increasing recognition that health professionals working in rural and remote regions require a broad range of skills that reflect the needs of the community they are caring for. The development of the AHRG is intended to address this – to prepare health practitioners with expanded practice skills to better meet the needs of rural communities.<sup>11</sup>

## OPTIMISING, EXTENDING AND DELEGATING WORK

### PHARMACISTS IMMUNISERS

Pharmacist Immunisers are registered pharmacists with authority to administer approved vaccines to specific client groups at approved locations (such as community pharmacies). Pharmacist Immunisers are required to complete a recognised 'Immuniser program of study'. By expanding their role, the community is afforded greater access to vaccinations. In 2016, the Tasmanian Poisons Regulation (2008) was amended to allow Pharmacist Immunisers to administer influenza vaccines. Evaluation of the program indicated that:

- up to 9,000 vaccines were administered.
- of those vaccinated, 12 per cent would not have been vaccinated if the service was not offered in the pharmacy and 9 per cent had not been vaccinated against flu before
- pharmacist immunisers reported improved customer-pharmacist relationships
- concerns highlighted by general practitioners included not being notified when their patient was vaccinated, concerns of care fragmentation and missed health promotion opportunities.<sup>1</sup>

The evaluation highlighted opportunities for improvement in communication and to the pharmacy environment as a vaccination space.

By optimising, and even extending the scope of allied health work at the profession level, there is capacity to improve patient access and care, and potentially lower costs. As outlined above, this can be particularly beneficial in rural and remote areas. Some examples of extended scope of practice include skill sharing between allied health professionals and allied health professionals undertaking tasks normally undertaken by a medical practitioner for which they have trained and are competent.

Trialling new methods, evaluating and sharing outcomes are key to health access and quality improvements, and core to an innovative workplace.

<sup>11</sup> National Rural Health Alliance Ltd 2019, *Supporting rural generalists in allied health professions*, National Rural Health Alliance, Deakin West, ACT, viewed 2 July 2019, <<http://www.ruralhealth.org.au/15nrhc/media-release/supporting-rural-generalists-allied-health-professions>>.

An enabler of extended scope of practice is the delegation of routine tasks to the support workforce, where appropriate. Effective delegation to the support workforce, including allied health assistants, allows allied health professionals to dedicate more time to tasks at the upper end of their scope of practice. Allied health assistants are usually trained to a Certificate IV level or equivalent and work under direct supervision to provide therapeutic and program-related support.

## TELEHEALTH

Telehealth refers to health services delivered through communication technologies such as videoconferencing. Improving access to telehealth services, particularly for people with disabilities and chronic and mental conditions, is a priority for the Australian Government and state and territory governments<sup>12</sup>.

Telehealth can also be beneficial in rural and remote regions and has the capacity to encourage self-managed care as well as leverage the support workforce. For example, an allied health assistant may be in the room with a patient on video conference to the allied health professional – working together to provide greater access to quality care. There are barriers to telehealth though, including digital literacy of patients and health care professionals, internet access, technology upgrades, apprehension to change and having staff to support patients through the process.

The recent experience with the COVID-19 pandemic has demonstrated that both the workforce and the community is able to adapt rapidly to a changing health care environment that enables telehealth through financial models and a motive to decrease face to face contact where possible. For example, in May 2020 32.7% of MBS services were delivered by telehealth, with 90.9% of these by telephone and 9.1% by videoconference.<sup>13</sup>

---

<sup>12</sup> Australian Institute of Health and Welfare 2018, *Australia's health 2018 - Chapter 7.5 Primary Care*, Australian Institute of Health and Welfare, Canberra, ACT, viewed 2 July 2019, <<https://www.AIHW.gov.au/getmedia/832c1e17-a3eb-4bb2-bd81-1a572e22a726/AIHW-aus-221-chapter-7-5.pdf.aspx>>.

<sup>13</sup> University of Queensland, Centre for Online Health, <https://coh.centre.uq.edu.au/telehealth-and-coronavirus-medicare-benefits-schedule-mbs-activity-australia>, viewed 9 August 2020.

# DATA AND METHODOLOGY

---

## DATA COLLECTED

The data used to inform this report includes:

- Australian Bureau of Statistics population statistics and 2016 Census data
- Australian Health Practitioner Regulation Agency Registration Statistics (2013-2018)
- Department of Home Affairs Migration Program Statistics (visa statistics).
- Hardes hospital activity data (separations) Tasmania
- Medicare Broad Type of Services utilisation reporting
- Medical Education and Training Reports: MTRP data prior to 2015/ MET dataset after 2015
- National Health Workforce Data Set – Re-registration survey responses (2013-2018)
- Public Sector Establishment and Payroll Data (June 30, 2018)
- Student numbers from education providers
- Tasmanian Government Department of Treasury and Finance 2019 Population Projections for Tasmania and its Local Government Areas
- Tasmanian unit record data – re-registration survey responses (2013-2018).

The National Health Workforce Data Set (NHWDS) is derived from the registration and survey process that all regulated health professionals undertake on an annual basis.

## DATA TREATMENT

Data collected from the Australian Health Practitioner Regulation Agency Registration Statistics and re-registration survey responses in the Tasmanian Unit Record subset of the National Health Workforce Data Set (NHWDS) (2013-2018) were filtered to only include people who are employed and working in Tasmania. This includes respondents on leave for up to three months.

Registered health professions are: nurse, midwife, chiropractor, dental practitioner, medical practitioner, osteopath, optometrist, pharmacist, physiotherapist, podiatrist, psychologist, occupational therapist, medical radiation practitioner, Chinese medicine practitioner, and Aboriginal and Torres Strait Islander health practitioner.

Aboriginal and Torres Strait Islander health practitioners, Chinese medicine practitioners, chiropractors and osteopaths are not profiled in this report because they are not employed in the Tasmanian state service (but are included in allied health totals).

Non-regulated and self-regulated allied health professions are not included in the NHWDS. Data provided on these professions is taken from the Public Sector Establishment and Payroll Data (June 30, 2018).

References to **employed headcount**, **employed FTE**, **change in FTE 2013-18**, **average working hours**, and **hours in public/private sector** data are self-reported responses to the re-registration survey from the Tasmanian Unit Record Data (2013-18). This is a subset of the National Health Workforce Data Set. The National Health Workforce Data Set is publicly available but cannot be viewed at the unit record level, and some comparisons are not possible because of the aggregation and reporting methods used in the National Health Workforce Data Set tool online.

**Age and gender** related measures come from registration information included in the Tasmanian Unit Record Data (2018). These data relate to the whole of Tasmania including both public and private sectors.

References to **employed headcount per 100,000 population** for Tasmania and its regions draw headcount from the Tasmanian Unit Record Data (2018) and the NHWDS for the national comparison. Both public and private sectors are included in the numerator headcount. Population figures used as the denominator for this calculation in all cases are drawn from the Australian Bureau of Statistics Population data Cat. 3235.0 for the year of the headcount numerator (2018), with the population for Tasmanian regions summed across relevant Local Government Areas.

While there is no nationally agreed number of health professionals per population in Australia, this method can be used to assess the relative supply of one region against another and can also be measured over time. Using this measure does have some limitations because it does not consider a number of other variables including; the population structure, burden of disease, patterns of service and provider utilisation, the actual “type” of services provided and socio- demographic characteristics.

Regional density can be affected by incomplete survey responses which mean a region cannot be assigned for the practitioner, but they still contribute to the Tasmanian density figure.

## **HIGH PRIORITY PROFESSIONS FOR PLANNING**

Some of the workforce indicator metrics in Figure 9 have been used to determine which professions are a high priority for planning. For allied health, the following metrics were used:

- proportion of the workforce over 60 years of age
- availability of all entry-level training in Tasmania
- Tasmanian headcount of professionals per 100,000 population.

### **Scoring methodology**

Where 25 percent or more of the profession workforce was over 60, a score of two was given and where 11-24 percent of the workforce was over 60, a score of one was given.

Where entry-level training was not available in Tasmania, a score of two was given.

Where Tasmania’s professional headcount per 100,000 population was at least 25 percent lower than the national rate, a score of two was given and where Tasmania’s professional headcount per 100,000 population was up to 24 percent lower than the national rate, a score of one was given.

All professions with a combined score of five or more were deemed priority professions.

In addition, any profession where Tasmania’s professional headcount per 100,000 population was at least 25 percent lower than the national rate was automatically deemed a priority profession.

## FIGURES

---

Figure 1 Allied health professions .....	6
Figure 2 Employed allied health practitioners in regulated professions per 100,000 population 2018, Tasmanian, Australia and jurisdictions .....	7
Figure 3 Percentage headcount change in allied health professions, by sector 2013-18, TAS.....	8
Figure 4 Geographic distribution of all registered allied health professionals (grouped) per 100,000 population (headcount), 2018.....	10
Figure 5 Geographic distribution of selected allied health professionals per 100,000 population (headcount), 2018.....	11
Figure 6 Geographic distribution of all allied health professionals (FTE) working in the public sector per 100,000 population, TAS 2018.....	11
Figure 7 Employed headcount of allied health professionals by sector, TAS 2018.....	12
Figure 8 Average hours worked by registered allied health professionals, TAS 2018.....	13
Figure 9 Allied health professions with workforce indicators .....	15
Figure 10 Allied health training offered in TAS compared to headcount of professionals (per 100,000 population), 2018 .....	16
Figure 11 Average age, in years, of registered employed allied health professionals, TAS 2018.....	19
Figure 12 Gender of registered, employed allied health professionals, TAS, 2018 (per cent).....	20

# APPENDIX A: ALLIED HEALTH WORKFORCE PROFILES

## ABOUT THE WORKFORCE PROFILES

The workforce profiles included in this report take a closer look at the individual professions within each workforce. The profiles do not focus on the workforce or staffing levels at individual facilities; rather they are a summary of that health profession in Tasmania in 2018.

The profiles are a tool to understand the workforce and give an indication of where challenges and opportunities may lie in the future.

Allied health professionals also work in areas outside of health including in education, disability, aged care, justice and children and youth services.

The density of allied health professionals is provided as a headcount per 100,000 population for Tasmanian. Regional density can be affected by incomplete re-registration survey responses where the practitioner cannot be assigned to a region but contributes to the Tasmanian density figure.

Allied health professional training is the formal process or pathway to meeting the requirements for registration or membership with the relevant professional association for self-regulated professions. Training pathways in to allied health professions are varied in duration, administration and the requirements.

The small size of some professional groups must be considered when reviewing the data. Even minimal movement, for example the resignation of one employee, will have a significant influence on the data profile. In addition, it should be noted that even though a health professional may be registered under a certain profession, their everyday work may align to a different profession, particularly if they are in a training program.

Paramedicine became a registered profession in December 2018. They are not included in this report as the data set will not be available until the registrant's complete re-registration.

## NATIONALLY REGISTERED PROFESSIONS

The data in the workforce profiles is sourced primarily from the National Health Workforce Data Set and includes employed, registered professionals in the public and private sectors, the acute (hospital) setting as well as community settings and in aged care. Nationally registered professions in Australia are:

- Aboriginal and Torres Strait Islander Health Professionals\*
- Chiropractors\*
- Chinese medicine\*
- Osteopathy\*
- Dental hygienists
- Dental prosthetist
- Dental therapists
- Dentists
- Oral health therapists
- Diagnostic radiographers
- Nuclear medicine technologists
- Radiation therapists
- Occupational therapists
- Optometrists
- Pharmacists
- Physiotherapists
- Podiatrists
- Psychologists.

\* A workforce profile is not included in this report because they are not employed in the Tasmanian state service

## SELF OR NON-REGULATED PROFESSIONS

The National Health Workforce Data Set only collects data for registered professions, therefore the self and non-regulated professional profiles use Tasmanian Department of Health workforce data and only capture allied health professionals working in the public health sector.

The self or non-regulated allied health professions profiled in this report are:

- Audiologists
- Cardiac Physiologist/Echocardiographers
- Counsellors
- Dietitian/Nutritionists
- Environmental/Public Health Officers
- Epidemiologists
- Genetic Counsellors
- Mammographic Technologists
- Medical Physicists
- Medical Scientists
- Microbiologists
- Orthotist/Prosthetists
- Perfusionists
- Social Workers
- Sonographers
- Speech Pathologist

There are other professions that may be considered 'allied health', however a workforce profile has not been developed due to low numbers in Tasmania, including:

- Health Physicist
- Medical Librarian
- Music Therapist
- Orthoptist
- Respiratory Scientist
- Forensic Anthropologist
- Neurophysiology Scientist

# 2018

## DENTAL PRACTITIONERS: INTRODUCTION

A SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	375
EMPLOYED FTE	364.5
FTE CHANGE 2013-18	21%
AVG. WEEKLY HOURS	36.9 hours
OVER 60 YEARS OLD	15%
AVERAGE AGE	43.9 years
GENDER	47% F 53% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
28%	72%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	82.4
TAS	71.0
South	75.9
North	68.2
North West	62.5

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Dental practitioners are a group of professions that focus on dental and oral health. They include:

- Dentists
- Dental prosthetists
- Dental therapists
- Dental hygienists
- Oral health therapists

The tables on the left combine the data for these professions to give an overall picture of the group.

### TRAINING

#### PROGRAM SUMMARY

Education and training pathways are dependent on the profession; however, all registered dental practitioners must complete a program of study approved by the Dental Board of Australia.

#### IN TASMANIA

You cannot complete training in Tasmania for any of the dental practitioner professions.

### REGISTRATION

Dental practitioners must be registered with the Dental Board of Australia.

### COMPARISON OF DENTAL PROFESSIONALS IN TASMANIA, 2018

PROFESSION	EMPLOYED HEADCOUNT	FTE
Dentists	250	245.0
Dental prosthetists	42	45.0
Dental therapists	41	33.8
Dental hygienists	20	15.7
Oral health therapists	22	25.0
<b>TOTAL</b>	<b>375</b>	<b>364.5</b>

# 2018

## DENTISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	250
EMPLOYED FTE	245.0
FTE CHANGE 2013-18	26%
AVG. WEEKLY HOURS	37.2 hours
OVER 60 YEARS OLD	18%
AVERAGE AGE	43.0 years
GENDER	34% F 66% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
18%	82%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	61.9
TAS	47.3
South	53.4
North	44.1
North West	36.6

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Dentists prevent, diagnose and treat dental disease, injury, decay and malformations of the teeth, gums, hard and soft tissue found on the mouth and other dento-facial structures using surgery and other techniques.

### TRAINING

#### PROGRAM SUMMARY

Dentists must complete a minimum five-year undergraduate, or four-year postgraduate master program of study approved by the Dental Board of Australia. Further training is required for specialisation.

#### IN TASMANIA

There are no training courses in Tasmania for dentists.

### REGISTRATION

In Australia, dentists must be registered under the National Registration and Accreditation Scheme with the Dental Board of Australia.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

# 2018

## DENTAL HYGIENISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	20
EMPLOYED FTE	15.7
FTE CHANGE 2013-18	25%
AVG. WEEKLY HOURS	29.9 hours
OVER 60 YEARS OLD	0%
AVERAGE AGE	41.6 years
GENDER	95% F 5% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
0%	100%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	6.4
TAS	3.8
South	4.1
North	4.1
North West	2.7

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Dental hygienists work under the direction of a dentist to assess a patient's oral health and to diagnose, treat and prevent oral disease.

### TRAINING

#### PROGRAM SUMMARY

Dental hygienists must complete a minimum two-year advanced diploma, or three-year undergraduate program of study approved by the Dental Board of Australia.

#### IN TASMANIA

There are no training courses in Tasmania for dental hygienists.

### REGISTRATION

In Australia, dental hygienists must be registered under the National Registration and Accreditation Scheme with the Dental Board of Australia.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

# 2018

## DENTAL PROSTHETISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	42
EMPLOYED FTE	45.0
FTE CHANGE 2013-18	5%
AVG. WEEKLY HOURS	40.7 hours
OVER 60 YEARS OLD	14%
AVERAGE AGE	49.2 years
GENDER	26% F 74% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
30%	70%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	6.2
TAS	8.0
South	8.5
North	6.9
North West	8.0

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Dental prosthetists design, construct, repair and fit dentures and mouth guards for patients who have been referred to them by a dentist.

### TRAINING

#### PROGRAM SUMMARY

Dental prosthetists must complete a minimum three-year undergraduate, or one-year postgraduate program of study approved by the Dental Board of Australia.

#### IN TASMANIA

There are no training courses in Tasmania for dental prosthetists.

### REGISTRATION

In Australia, dental prosthetists must be registered under the National Registration and Accreditation Scheme with the Dental Board of Australia.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

# 2018

## DENTAL THERAPISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	41
EMPLOYED FTE	33.8
FTE CHANGE 2013-18	-25%
AVG. WEEKLY HOURS	31.3 hours
OVER 60 YEARS OLD	12%
AVERAGE AGE	52.3 years
GENDER	93% F 7% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
%86	%14

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	3.3
TAS	7.8
South	5.9
North	6.9
North West	13.4

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Dental therapists diagnose and treat oral disease in children up to 18 years. Dental therapists examine, clean and extract teeth as well as undertake preventative work and health promotion. Dental therapists may work in general or specialised dental practices under the general supervision of a dentist.

### TRAINING

#### PROGRAM SUMMARY

Dental therapists must complete a minimum three-year undergraduate program of study approved by the Dental Board of Australia.

#### IN TASMANIA

There are no training courses in Tasmania for dental prosthetists.

### REGISTRATION

In Australia, dental therapists must be registered under the National Registration and Accreditation Scheme with the Dental Board of Australia.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

# 2018

## ORAL HEALTH THERAPISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	22
EMPLOYED FTE	25.0
FTE CHANGE 2013-18	223%
AVG. WEEKLY HOURS	43.1 hours
OVER 60 YEARS OLD	0%
AVERAGE AGE	29.7 years
GENDER	100% F 0% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
66%	34%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	4.5
TAS	4.2
South	4.1
North	6.2
North West	1.8

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Oral health therapists hold a dual qualification as a dental therapist and dental hygienist. Oral health therapists work with children and adults under the direction of a dentist to assess a patient's oral health and to diagnose, treat and prevent oral disease.

### TRAINING

#### PROGRAM SUMMARY

Oral health therapists must complete a minimum three-year undergraduate program of study approved by the Dental Board of Australia.

#### IN TASMANIA

There are no training courses in Tasmania for oral health therapists

### REGISTRATION

In Australia, oral health therapists must be registered under the National Registration and Accreditation Scheme with the Dental Board of Australia.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

There has been a significant increase in the workforce over the past five years. This is from a low starting point.

# 2018

## MEDICAL RADIATION PRACTITIONERS: INTRODUCTION

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	294
EMPLOYED FTE	271.4
FTE CHANGE 2013-18	24%
AVG. WEEKLY HOURS	35.1 hours
OVER 60 YEARS OLD	12 %
AVERAGE AGE	40.8 years
GENDER	69% F 31% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
56%	44%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	56.6
TAS	55.7
South	59.7
North	55.2
North West	46.5

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Medical radiation practitioners perform diagnostic imaging studies on patients, plan and administer radiation treatments and prepare and administer nuclear medicine. The following professions are included:

- Diagnostic radiographers
- Nuclear medicine technologists
- Radiation therapists

The tables to the left combine the data for these professions to give an overall picture of the group.

### COMPARISON OF MEDICAL RADIATION PRACTITIONERS IN TASMANIA, 2018

PROFESSION	EMPLOYED HEADCOUNT	FTE
Diagnostic radiographers	221	200.3
Nuclear medicine technologists	17	14.9
Radiation therapists	56	56.2
<b>TOTAL</b>	<b>294</b>	<b>271.4</b>

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

Sonographers are included in the self-regulated profession profiles.

# 2018

## DIAGNOSTIC RADIOGRAPHERS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	221
EMPLOYED FTE	200.3
FTE CHANGE 2013-18	26%
AVG. WEEKLY HOURS	34.4 hours
OVER 60 YEARS OLD	15%
AVERAGE AGE	42.2 years
GENDER	71% F 29% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
49%	51%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	Not yet available
TAS	41.8
South	47.2
North	37.2
North West	34.8

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Diagnostic radiographers use specialised equipment to produce x-rays, computerised tomography (CT), magnetic resonance imaging (MRI), mammography, ultrasound, angiography and other images to diagnose, monitor and treat injury and illness.

Diagnostic radiographers calculate details of the procedure, for example, the correct equipment settings, explain the procedure to the patient, monitor them throughout and communicate findings to the referring medical practitioner.

### TRAINING

#### PROGRAM SUMMARY

Diagnostic radiographers must complete a minimum four-year undergraduate, or two-year postgraduate program of study approved by the Medical Radiation Practice Board of Australia.

#### IN TASMANIA

The University of Tasmania offers an approved course; however, some components are based only out of Charles Sturt University, Wagga Wagga. Students may be able to use the degree to enter postgraduate courses throughout Australia.

### REGISTRATION

In Australia, diagnostic radiographers must be registered with the Medical Radiation Practice Board of Australia.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

Some diagnostic radiographers are dual qualified as sonographers. These individuals are included in this profile (and not included again in the 2018 Sonographer profile).

# 2018

## NUCLEAR MEDICINE TECHNOLOGISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	17
EMPLOYED FTE	14.9
FTE CHANGE 2013-18	10%
AVG. WEEKLY HOURS	33.2 hours
OVER 60 YEARS OLD	6%
AVERAGE AGE	33.9 years
GENDER	53% F 47% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
28%	72%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	Not yet available
TAS	3.2
South	4.1
North	3.4
North West	0.9

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Nuclear medicine technologists use radioactive materials, called radiopharmaceuticals, to investigate, diagnose and treat disease. To do this, nuclear medicine technologists create images of organs, study body functions and analyse biological specimens. Specialised technicians may also work with ultrasound, positron emission tomography (PET), computer programming or bone mineral densitometry. Nuclear medicine technologists calculate procedure details, for example, the correct equipment settings, explain the procedure to the patient, monitor them throughout and communicate findings to the referring medical practitioner.

### TRAINING

#### PROGRAM SUMMARY

Nuclear medicine technologists must complete a minimum three-year undergraduate, or two-year postgraduate master program of study approved by the Medical Radiation Practice Board of Australia.

#### IN TASMANIA

The University of Tasmania offers an approved four-year course; however, the third and fourth years are based at Charles Sturt University, Wagga Wagga. Students can use the degree to enter postgraduate courses throughout Australia.

### REGISTRATION

To practice in Australia, nuclear medicine technologists must be registered with the Medical Radiation Practice Board of Australia.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

# 2018

## RADIATION THERAPISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	56
EMPLOYED FTE	56.2
FTE CHANGE 2013-18	20%
AVG. WEEKLY HOURS	38.1 hours
OVER 60 YEARS OLD	4%
AVERAGE AGE	37.3 years
GENDER	66% F 34% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
92%	8%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	Not yet available
TAS	10.6
South	8.5
North	14.5
North West	10.7

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Radiation therapists design, plan and administer radiation treatment to cancer patients, and provide related care to patients in conjunction with radiation oncologists or other medical specialists. Radiation therapists use 3D and 4D imaging equipment and computer planning systems to create and calculate the best treatment for the patient as prescribed by the radiation oncologist. They are responsible for radiation treatment delivery and use advanced technology and imaging to ensure minimal damage to healthy tissue surrounding the tumour.

### TRAINING

#### PROGRAM SUMMARY

Radiation therapists must complete a minimum four-year undergraduate, or two-year postgraduate master program of study approved by the Medical Radiation Practice Board of Australia.

#### IN TASMANIA

The University of Tasmania offers an approved course; however some components are based only out of Charles Sturt University, Wagga Wagga. Students may be able to use the degree to enter postgraduate courses throughout Australia

### REGISTRATION

In Australia, radiation therapists must be registered with the Medical Radiation Practice Board of Australia.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

# 2018

## OCCUPATIONAL THERAPISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	279
EMPLOYED FTE	236.7
FTE CHANGE 2013-18	26%
AVG. WEEKLY HOURS	32.2 hours
OVER 60 YEARS OLD	6%
AVERAGE AGE	41.5 years
GENDER	88% F 12% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
55%	45%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	73.8
TAS	52.8
South	62.3
North	49.6
North West	33.9

### DESCRIPTION

Occupational therapists work with people of all ages and abilities to do the things they need and want to in all aspects of life, such as taking care of themselves and others, working, volunteering, and participating in hobbies, interests and social events. Occupational therapists call these things 'occupations'.

Occupational therapists are experts in the relationships between what people do and their health and well-being, and work with people to help make every day living easier through developing skills, finding new ways to do things and changing the environment to suit a person's needs.

### TRAINING

#### PROGRAM SUMMARY

Occupational therapists must complete a minimum four-year undergraduate, or two-year postgraduate master program of study approved by the Occupational Therapy Board of Australia.

#### IN TASMANIA

There are no undergraduate training programs available in Tasmania for occupational therapists.

### REGISTRATION

In Australia, occupational therapists must be registered with the Occupational Therapy Board of Australia.

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

# 2018

## OPTOMETRISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	104
EMPLOYED FTE	93.2
FTE CHANGE 2013-18	17
AVG. WEEKLY HOURS	34 hours
OVER 60 YEARS OLD	8%
AVERAGE AGE	43.8 years
GENDER	47% F 53% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
5%	95%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	20.2
TAS	19.7
South	22.1
North	16.5
North West	17.9

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Optometrists investigate, diagnose, treat and provide preventative health care in relation to the human eye and vision systems. Optometrists perform eye and vision tests to assess visual, ocular and other abnormalities, ocular and systemic diseases with ocular manifestations. They also prescribe lenses, optical aids, therapy and medication to correct and manage vision problems and eye diseases.

### TRAINING

#### PROGRAM SUMMARY

Optometrist must complete a five-year undergraduate, five year combined undergraduate/masters (or 3.5 year accelerated) or four-year master program of study approved by the Optometry Board of Australia.

#### IN TASMANIA

There are no approved optometry training courses in Tasmania.

### REGISTRATION

In Australia, optometrists must be registered under the National Registration and Accreditation Scheme with the Optometry Board of Australia.

# 2018

## PHARMACISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	628
EMPLOYED FTE	576.6
FTE CHANGE 2013-18	10%
AVG. WEEKLY HOURS	34.9 hours
OVER 60 YEARS OLD	8%
AVERAGE AGE	39.6 years
GENDER	58% F 42% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
32%	68%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	100.6
TAS	118.9
South	136.7
North	106.2
North West	92.0

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Pharmacists compound and dispense pharmaceuticals and other drugs and medicines, conduct research on production, storage, quality control and distribution of drugs and related supplies and advise patients and other health professionals on the selection, dosage, interactions and side effects of pharmaceuticals. Pharmacists work with other health professionals to monitor the health and progress of patients and ensure medications are taken in a safe and effective manner.

Pharmacists have a legislated regulatory role in the manufacture, supply and distribution of drugs and poisons and work closely with other health professionals managing medication risk.

### TRAINING

#### PROGRAM SUMMARY

Pharmacists must complete a minimum four-year undergraduate, or two-year postgraduate master program of study approved by the Pharmacy Board of Australia. A recognised program of study is required to gain endorsement as a pharmacist immuniser.

#### IN TASMANIA

There are approved training courses for pharmacists in Tasmania through the University of Tasmania.

### REGISTRATION

In Australia, pharmacists must be registered under the National Registration and Accreditation Scheme with the Pharmacy Board of Australia.

# 2018

## PHYSIOTHERAPISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	444
EMPLOYED FTE	390.0
FTE CHANGE 2013-18	28%
AVG. WEEKLY HOURS	33.4 hours
OVER 60 YEARS OLD	9%
AVERAGE AGE	40.9 years
GENDER	70% F 30% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
42%	58%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	109.1
TAS	84.0
South	98.0
North	77.9
North West	58.1

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Physiotherapists investigate, diagnose, treat and provide preventative care in relation to the structure and movement of the human body. To optimise physical function, aid in recovery from injury or illness, reduce pain and prevent further injury, physiotherapists use various treatment methods, including exercise and rehabilitation programs to improve mobility and strengthen muscles, joint mobilisation and manipulation to reduce pain and stiffness, muscle re-education to improve control, airway clearance techniques and breathing exercises, soft tissue mobilisation (massage), acupuncture and dry needling, assistance with the use of mobility aides, hydrotherapy and electrotherapy.

### TRAINING

#### PROGRAM SUMMARY

Physiotherapists must complete a minimum four-year undergraduate, two-year postgraduate master program of study or professional doctorate program that is approved by the Physiotherapy Board of Australia.

#### IN TASMANIA

There is no undergraduate training available in Tasmania for physiotherapists.

### REGISTRATION

In Australia, physiotherapists must be registered with the National Registration and Accreditation Scheme with the Physiotherapy Board of Australia.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

# 2018

## PODIATRISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	107
EMPLOYED FTE	101.5
FTE CHANGE 2013-18	18%
AVG. WEEKLY HOURS	36 hours
OVER 60 YEARS OLD	5%
AVERAGE AGE	39.1 years
GENDER	60% F 40% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
23%	77%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	18.9
TAS	20.3
South	21.0
North	19.3
North West	19.7

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Podiatrists specialise in the prevention, diagnosis, treatment and rehabilitation of disorders of the foot and lower leg for children and adults. Podiatrists undertake nail surgery and manage foot ulcers and the impact of chronic disease such as diabetes.

### TRAINING

#### PROGRAM SUMMARY

Podiatrists must complete a minimum three-year undergraduate or two-year postgraduate master program of study approved by the Podiatry Board of Australia. Further training is required for podiatric surgeon and to gain endorsement for scheduled medicines.

#### IN TASMANIA

There are no approved podiatry training courses in Tasmania.

### REGISTRATION

In Australia, podiatrists must be registered under the National Registration and Accreditation Scheme with the Podiatry Board of Australia.

Podiatrists may administer or apply some medications (such as local anaesthetic and topical creams) as a part of treatment without further endorsement. To prescribe and administer a limited supply of other medications (such as antibiotics) podiatrists must complete additional qualifications and supervised practice to gain endorsement for scheduled medicines by the Podiatry Board of Australia.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

# 2018

## PSYCHOLOGISTS

SNAPSHOT OF THE WORKFORCE IN TASMANIA

### NUMBERS

EMPLOYED HEADCOUNT	469
EMPLOYED FTE	391.9
FTE CHANGE 2013-18	12%
AVG. WEEKLY HOURS	31.8 hours
OVER 60 YEARS OLD	17%
AVERAGE AGE	47.7 years
GENDER	81% F 19% M

### CLINICAL HOURS WORKED IN SECTOR

Public	Private
43%	57%

### EMPLOYED HEADCOUNT PER 100,000 POPULATION

AUS	108.1
TAS	88.8
South	116.5
North	58.6
North West	60.7

Sources: National Health Workforce Data Set including Tasmanian Unit Record Data (2018), ABS population data cat. 3235.0 (2018)

### DESCRIPTION

Psychologists provide services to help adults and children improve relationships, behaviour or thinking processes through a range of methods, including cognitive and psychological assessments, counselling, treatment programs and applied research. Psychologists may undertake further training to gain endorsement in a particular area of practice such as clinical, occupational or neuro psychology.

### TRAINING

#### PROGRAM SUMMARY

Psychologists must complete a minimum four-year program of study approved by the Psychology Board of Australia, followed by further approved postgraduate study and/or internship.

#### IN TASMANIA

The University of Tasmania offers approved undergraduate and post-graduate psychology training options in Tasmania

### REGISTRATION

In Australia, psychologists must be registered under the National Registration and Accreditation Scheme with the Psychology Board of Australia.

# 2018

## AUDIOLOGISTS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED	5
HEADCOUNT	
OCCUPIED FTE	2.7
OVER 60 YEARS OLD	20%
AVERAGE AGE	47 years
GENDER	80% F 20% M
OCCUPIED FTE PER 100,000 POPULATION	
TAS	0.5 *

\* Statewide service

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

### DESCRIPTION

Audiologists assess, determine and manage non-medical ear disorders of children and adults which includes hearing loss, tinnitus, hyperacusis and vertigo. Audiologists also provide rehabilitation technology such as hearing aids, cochlear implants and other surgically implanted devices.

### TRAINING

#### PROGRAM SUMMARY

To gain accreditation, audiologists must complete a masters-level degree in clinical audiology, as approved by the industry peak body, Audiology Australia.

#### IN TASMANIA

There are no accredited training courses in Tasmania for audiologists.

### REGULATION

In Australia, Audiology is a self-regulated profession; audiologists can apply for accreditation through Audiology Australia.

### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

The small size of this group must be considered when reviewing the data and any trends within. Even minimal movement, for example the resignation of one employee will have a significant influence on the profile.

# 2018

## CARDIAC PHYSIOLOGISTS / ECHOCARDIOGRAPHERS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED HEADCOUNT	12
OCCUPIED FTE	8.2
OVER 60 YEARS OLD	0%
AVERAGE AGE	45 years
GENDER	89% F 11% M

### OCCUPIED FTE PER 100,000 POPULATION

TAS	1.6
South	2.3
North and North West	0.8

Sources: Executive Reporting System (FYI)  
Human Resources: Establishment 30  
June 2018; ABS population data (2018)

### DESCRIPTION

Cardiac physiologists and echocardiographers form part of the cardiology team operating a range of specialist equipment and provide data to Cardiologists and other medical practitioners for use in patient care. The data for these workforces are combined in this profile.

Cardiac Physiologists are involved in the diagnosis and treatment of patients with heart disease. They use ultrasound and other technical equipment to create an image of the heart, then record and analyse physiological data to diagnose and treat cardiac disease.

Echocardiographers provide technical services for investigation, diagnosis and treatment of heart disease (echocardiography).

### TRAINING

#### PROGRAM SUMMARY

Cardiac physiologists are usually educated to at least a bachelor's degree level in clinical physiology, biomedical science, health science, nursing or exercise physiology. The Bachelor of Echocardiography and Cardiac Physiology / Graduate Diploma in Echocardiography are the first Australian courses allowing undergraduate entry to this field.

#### IN TASMANIA

There are no training courses in Tasmania for cardiac physiologists or echocardiographers.

### REGULATION

In Australia, cardiac physiology and echocardiography are self-regulated professions. Cardiac physiologists and echocardiographers can apply for membership with the Australian Council for Clinical Physiology and/or registration with the Australian Sonographer Accreditation Registry depending on the role being performed.

### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

# 2018

## COUNSELLORS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED HEADCOUNT	14
OCCUPIED FTE	10.8
OVER 60 YEARS OLD	29%
AVERAGE AGE	49 years
GENDER	79% F 21% M
OCCUPIED FTE PER 100,000 POPULATION	
TAS	2.0
South	3.7
North	0.0
North West	0.0

Sources: Executive Reporting System  
(FY1) Human Resources: Establishment  
30 June 2018; ABS population data  
(2018)

### DESCRIPTION

Counsellors use counselling, psychotherapeutic and psychological theories with individuals, couples, families or groups to effect understanding and change in the clients' lives. Through therapeutic relationships, the counsellor helps individuals to explore and resolve issues that are affecting them.

### TRAINING

#### PROGRAM SUMMARY

There are various counselling tertiary qualifications and programs of study; most starting at diploma level.

#### IN TASMANIA

There are training courses in Tasmania for counsellors.

### REGULATION

In Australia, counselling is a non-regulated profession.

Counsellors can apply for certification through either of the leading industry bodies, the Psychotherapy and Counselling Federation of Australia or the Australian Counselling Association.

### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

# 2018

## DIETITIANS / NUTRITIONISTS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED HEADCOUNT	72
OCCUPIED FTE	50.9
OVER 60 YEARS OLD	4%
AVERAGE AGE	41 years
GENDER	97% F 3% M

### OCCUPIED FTE PER 100,000 POPULATION

TAS	9.6
South	11.7
North	7.1
North West	7.1

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

### DESCRIPTION

Nutritionists assess nutritional needs, plan diets and educate children and adults to attain, maintain and promote health through healthy eating.

Dietitians can work in any of the areas that nutritionists work but, additionally they can provide nutrition advice for treatment of a broad range of diseases and health conditions.

### TRAINING

#### PROGRAM SUMMARY

Certified dietitians are required to complete a bachelor or master's degree accredited by the industry peak body Dietitians Association of Australia (DAA).

#### IN TASMANIA

There are no DAA accredited training courses in Tasmania for dietitians.

There are various nutritionist courses available in Tasmania through TAFE and the University of Tasmania.

### REGULATION

In Australia, dietitians and nutritionists are not required to be registered under the National Registration and Accreditation Scheme. However, dietitians can apply for certification through the DAA and nutritionists can apply for membership with the Nutrition Society of Australia (NSA).

### NOTES

This profile combines the dietitian and nutritionist professions.

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

# 2018

## ENVIRONMENTAL / PUBLIC HEALTH OFFICERS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED HEADCOUNT	8
OCCUPIED FTE	7.4
OVER 60 YEARS OLD	0%
AVERAGE AGE	51 years
GENDER	38% F 63% M
OCCUPIED FTE PER 100,000 POPULATION	
TAS	1.4 *

\* Statewide service

Sources: Executive Reporting System  
(FYI) Human Resources: Establishment  
30 June 2018; ABS population data  
(2018)

### DESCRIPTION

Environmental health officers assess and control physical, chemical and biological factors that can influence a person's health. Environmental health officers focus on disease prevention and creating health-supportive environments.

Public health officers focus on the overall health of communities. They educate the public on health risks and healthy living. They also create programs to encourage healthier lifestyles and minimise the risk of illness, disease and infection through education, policy making and research.

### TRAINING

#### PROGRAM SUMMARY

There are various education paths leading to environmental health and public health officer careers, including studying environmental or public health, science and/or management at university or TAFE. These areas of study may be undertaken within a science, health science, social science or natural science component. Tertiary qualifications and programs of study for environmental health are accredited by Environmental Health Australia (EHA).

#### IN TASMANIA

There are courses available in Tasmania for environmental and public health officers.

### REGULATION

In Australia, environmental health officers and public health officers are non-regulated professions. However, they can apply for membership with EHA and Public Health Association of Australia, respectively.

### NOTES

This profile is a summary of the workforce (environmental / public health officers combined) employed by the Tasmanian Health Service and Department of Health.

Environmental Health Officers and Public Health Officers include a number of different roles employed under the Allied Health Professional Agreement. However, they do not meet Allied Health Professions Australia's definition of an allied health professional.

The small size of this group must be considered when reviewing the data and any trends within. Even minimal movement, for example the resignation of one employee, will have a significant influence on the data profile.

DRAFT

# 2018

## EPIDEMIOLOGISTS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED	3 or less
----------	-----------

#### HEADCOUNT

OCCUPIED FTE	2.9
--------------	-----

OVER 60 YEARS OLD	33%
----------------------	-----

AVERAGE AGE	50 years
-------------	----------

GENDER	67% F 33% M
--------	----------------

#### OCCUPIED FTE PER 100,000 POPULATION

TAS	0.5 *
-----	-------

\* Statewide service

Sources: Executive Reporting System  
(FY1) Human Resources: Establishment  
30 June 2018; ABS population data  
(2018)

### DESCRIPTION

Epidemiology combines the disciplines of medicine, health sciences, social science and statistics. Epidemiologists investigate and study the occurrence of disease patterns in human populations and identify causes of disease or other health related conditions or events. They provide essential data to manage, evaluate and plan services for the prevention, control and treatment of disease and other health related events.

### TRAINING

#### PROGRAM SUMMARY

There are many pathways to becoming an epidemiologist. This requires at least, a master's degree in public health with an emphasis in epidemiology.

#### IN TASMANIA

The university of Tasmania offers undergraduate and postgraduate courses leading to recognition as an epidemiologist.

### REGULATION

In Australia, epidemiology is a non-regulated profession. However, they can apply for membership with The Australasian Epidemiological Association.

### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

Epidemiologists are employed under the Allied Health Professional Agreement. However, they do not meet Allied Health Professions Australia's definition of an allied health professional.

The small size of this group must be considered when reviewing the data and any trends within. Even minimal movement, for example the resignation of one employee, will have a significant influence on the data profile.

# 2018

## GENETIC COUNSELLORS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED	5
HEADCOUNT	
OCCUPIED FTE	4.5
OVER 60 YEARS OLD	0%
AVERAGE AGE	44 years
GENDER	100% F

OCCUPIED FTE PER 100,000 POPULATION	
TAS	0.9*

\* Statewide service

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

### DESCRIPTION

Genetic counsellors help individuals, couples and families understand and adapt to the medical, psychological, familial and reproductive implications of the genetic contribution to specific health conditions. Genetic counsellors help people make informed decisions about genetic testing, interpret test results and communicate the implications of the result, for the individual and their family members. Genetic counsellors also consider the implications of a genetic diagnosis on the patient's immediate and extended family.

### TRAINING

#### PROGRAM SUMMARY

Certified genetic counsellors are required to complete a master's degree. Most programs of study accredited by the Human Genetics Society of Australasia require an undergraduate degree along with experience in counselling and/or genetics.

#### IN TASMANIA

There are no training courses in Tasmania for genetic counsellors.

### REGULATION

In Australia, genetic counselling is a self-regulated profession. Genetic Counsellors can be certified by the Human Genetics Society of Australasia.

### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

The small size of this group must be considered when reviewing the data and any trends within. Even minimal movement, for example the resignation of one employee, will have a significant influence on the data profile.

# 2018

## MAMMOGRAPHIC TECHNOLOGISTS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED	4
HEADCOUNT	
OCCUPIED FTE	1.7
OVER 60 YEARS OLD	0%
AVERAGE AGE	38 years
GENDER	100% F

OCCUPIED FTE PER 100,000 POPULATION	
TAS	0.3 *

\* Statewide service

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

### DESCRIPTION

Mammographic technologists are responsible for performing imaging procedures (in mammography) to ensure client screening and assessment occurs to a contemporary professional standard. The quality of the image and accuracy of positioning is crucial for the radiologist to make an accurate interpretation. These technologists maintain and operate imaging equipment and accessories in accordance with radiation protection and safety and infection control guidelines.

### TRAINING

#### PROGRAM SUMMARY

The Graduate Diploma of Mammography provides an alternative pathway for training mammography practitioners and to meet personnel shortages in the health sector. The course has been designed to align with the Australian Society of Medical Imaging and Radiation Therapy's (ASMIRT) Certificate of Clinical Proficiency in Mammography. Entry to this course requires successful completion of an AQF Level 7 Bachelor's degree (or equivalent) in a health or science-based field.

#### IN TASMANIA

There are no courses in Tasmania for mammographic technologists

### REGULATION

In Australia, mammographic technologists are not required to be registered.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health. The small size of this group must be considered when reviewing the data and any trends within. Even minimal movement, for example the resignation of one employee, will have a significant influence on the data profile.

# 2018

## MEDICAL PHYSICISTS

### PUBLIC HEALTH

#### SECTOR NUMBERS

OCCUPIED	9
HEADCOUNT	
OCCUPIED FTE	9.0
OVER 60 YEARS OLD	11%
AVERAGE AGE	48 years
GENDER	22% F 78% M

#### OCCUPIED FTE PER 100,000 POPULATION

TAS	1.7
South	1.1
North	2.8
North West	1.8

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

### DESCRIPTION

Medical physicists research, diagnose and implement new technologies, systems and treatments for human diseases. Medical physicists also assist staff in physical and computational matters. Medical physicists may specialise in radiation oncology, diagnostic radiology or nuclear medicine.

### TRAINING

#### PROGRAM SUMMARY

To be certified, medical physicists must complete training with the peak industry body, the Australian College of Physical Scientists and Engineers in Medicine (ACPSEM), which includes completing an accredited postgraduate degree.

#### IN TASMANIA

There are no accredited courses in Tasmania for medical physicists.

### REGULATION

In Australia, medical physics is not a regulated profession; however, they can apply for certification through ACPSEM.

### NOTES

The Department of Health Radiation Protection Unit provides licenses to practice in accordance with the *Tasmanian Radiation Protection Act 2005* and the *Radiation Protection Regulations 2016*.

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

The small size of this group must be considered when reviewing the data and any trends within. Even minimal movement, for example the resignation of one employee, will have a significant influence on the data profile.

# 2018

## MEDICAL SCIENTISTS

### PUBLIC HEALTH

#### SECTOR NUMBERS

OCCUPIED HEADCOUNT	94
OCCUPIED FTE	78.8
OVER 60 YEARS OLD	12%
AVERAGE AGE	47 years
GENDER	71% F 29% M
OCCUPIED FTE PER 100,000 POPULATION	
TAS	14.9
South	20.1
North and North West	8.8

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

#### DESCRIPTION

Medical scientists assess and interpret medical laboratory tests for obtaining information to diagnose, treat, monitor and prevent disease. Medical scientists may work in anatomical pathology, clinical biochemistry, cytology, cytogenetics, haematology, medical microbiology, molecular pathology or transfusion medicine.

#### TRAINING

##### PROGRAM SUMMARY

Medical scientists usually complete a Bachelor of Science or laboratory medicine.

##### IN TASMANIA

There are training courses in Tasmania for medical scientists through the University of Tasmania.

#### REGULATION

In Australia, medical science is not a regulated profession, however they can apply for membership with the Australian Institute of Medical Scientists, Australian Association of Clinical Biochemists or Australian Society of Microbiology, depending on the role being performed.

#### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

# 2018

## MICROBIOLOGISTS

### PUBLIC HEALTH

#### SECTOR NUMBERS

OCCUPIED	4
HEADCOUNT	
OCCUPIED FTE	3.6
OVER 60 YEARS OLD	0%
AVERAGE AGE	43 years
GENDER	50% F 50% M
OCCUPIED FTE PER 100,000 POPULATION	
TAS	0.7 *

\*Statewide service

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

#### DESCRIPTION

Microbiologists are scientists who specialise in the field of microbiology and study organisms on a cellular level. From food production to public health, microbiologists study the microbes' environments, how they live, and the effect they have on the world around them.

#### TRAINING

##### PROGRAM SUMMARY

To work as a Microbiologist in Australia, a bachelor's degree in Science with a major in microbiology is required. Post graduate study is not required but helpful for career advancement.

##### IN TASMANIA

The University of Tasmania offers training courses for microbiology.

#### REGULATION

In Australia, microbiology is not a regulated profession, however microbiologists can apply for membership with the professional association Australian Society of Microbiology

#### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

Microbiologists are employed under the Allied Health Professional Agreement. However, they do not meet Allied Health Professions Australia's definition of an allied health professional.

The small size of this group must be considered when reviewing the data and any trends within. Even minimal movement, for example the resignation of one employee, will have a significant influence on the data profile.

# 2018

## SONOGRAPHERS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED HEADCOUNT	13
OCCUPIED FTE	8.3
OVER 60 YEARS OLD	0%
AVERAGE AGE	44 years
GENDER	62% F 38% M

### OCCUPIED FTE PER 100,000 POPULATION

TAS	1.6
South	1.7
North	2.5
North West	0.0

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

### DESCRIPTION

Sonographers use ultrasound (high-frequency sound waves) equipment to create, interpret and record anatomical images that can be used for medical diagnosis. Sonographers calculate procedure details, explain the procedure to the patient, monitor them throughout and communicate findings to the referring medical practitioner.

### TRAINING

#### PROGRAM SUMMARY

Accredited sonographers complete a postgraduate course recognised by the Australian Sonographer Accreditation Registry (ASAR).

#### IN TASMANIA

There are no ASAR accredited sonography courses in Tasmania.

### REGULATION

Sonography is a self-regulated profession. They need to be accredited with ASAR in order to perform clinical ultrasound exams eligible for Medicare rebates.

### NOTES

Some sonographers are dual qualified as diagnostic radiographers. These individuals are included in the diagnostic radiographer profile and not included again in this profile.

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

# 2018

## ORTHOTISTS AND PROSTHETISTS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED HEADCOUNT	11
OCCUPIED FTE	9.9
OVER 60 YEARS OLD	18%
AVERAGE AGE	48 years
GENDER	64% F 36% M

### OCCUPIED FTE PER 100,000 POPULATION

TAS	1.9
South	2.6
North	1.0
North West	0.9

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

### DESCRIPTION

Orthotists and prosthetists assess and treat physical and functional limitations of people through illness, disability or limb amputations. Orthotists and prosthetists prescribe, design, fit and monitor artificial and externally applied devices to replace missing limbs, provide bodily support and alignment, and reduce pain to enhance mobility and independence.

### TRAINING

#### PROGRAM SUMMARY

Orthotists/prosthetists in Australia are required to complete a bachelor's degree. The Bachelor of Prosthetics and Orthotics is the only course accepted by the Australian Orthotic Prosthetic Association (AOPA).

#### IN TASMANIA

There are no accredited orthotists/prosthetists courses available in Tasmania.

### REGULATION

Orthotists/prosthetists are a self-regulated allied health profession. They can apply for membership with the national peak body, the AOPA.

### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

# 2018

## PERFUSIONISTS

### PUBLIC HEALTH

#### SECTOR NUMBERS

OCCUPIED	4
HEADCOUNT	
OCCUPIED FTE	4.0
OVER 60 YEARS OLD	75%
AVERAGE AGE	54 years
GENDER	75% F 25% M
OCCUPIED FTE PER 100,000 POPULATION	
TAS	0.8 *

\* Statewide service

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

#### DESCRIPTION

Perfusionists are part of the cardiovascular team during cardiopulmonary bypass surgery and associated therapies of patients. Perfusionists operate heart and lung equipment to keep a patient in a safe and stable condition while their heart is stopped.

#### TRAINING

##### PROGRAM SUMMARY

Certified perfusionists usually complete a science degree or equivalent and a 2-3-year training courses in perfusion theory and practice, through the Australian and New Zealand College of Perfusionists.

##### IN TASMANIA

There are no perfusion courses in Tasmania.

#### REGULATION

Perfusion is a self-regulated allied health profession. They can apply for certification with the Australasian Board of Cardiovascular Perfusion.

#### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

The small size of this group must be considered when reviewing the data and any trends within. Even minimal movement, for example the resignation of one employee, will have a significant influence on the data profile.

# 2018

## SOCIAL WORKERS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED	192
HEADCOUNT	
OCCUPIED FTE	154.9
OVER 60 YEARS OLD	21%
AVERAGE AGE	50 years
GENDER	83% F 17% M
OCCUPIED FTE PER 100,000 POPULATION	
TAS	29.3
South	29.9
North	31.5
North West	23.2

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

### DESCRIPTION

Social workers use a range of services underpinned by evaluation and research to help people with personal and social problems such as poverty, substance abuse or homelessness. Social workers may work with individuals as well as groups or communities through planning or undertaking programs. Social workers may also develop and monitor public mental health policy, procedures and programs.

### TRAINING

#### PROGRAM SUMMARY

To gain accreditation, social workers must complete a course approved by the national peak body, the Australian Association of Social Workers (AASW). Most of the approved courses are bachelor or master's degrees in social work.

#### IN TASMANIA

The University of Tasmania offers courses that are accredited by the AASW.

### REGULATION

Social work is a self-regulated allied health profession. Social workers can apply for membership with AASW.

### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.

# 2018

## SPEECH PATHOLOGISTS

### PUBLIC HEALTH SECTOR NUMBERS

OCCUPIED	50
HEADCOUNT	
OCCUPIED FTE	38.2
OVER 60 YEARS OLD	4%
AVERAGE AGE	40 years
GENDER	100% F

### OCCUPIED FTE PER 100,000 POPULATION

TAS	7.2
South	7.4
North	5.1
North West	8.9

Sources: Executive Reporting System (FYI) Human Resources: Establishment 30 June 2018; ABS population data (2018)

### DESCRIPTION

Speech pathologists investigate, diagnose, and treat children and adults with communication difficulties or feeding and swallowing problems. They may use augmentative and alternative communication devices such as signing, picture charts, special computers or devices in developing a management plan that best suits the person's needs.

### TRAINING

#### PROGRAM SUMMARY

Certified speech pathologists need to complete a bachelor or master degree in speech pathology or equivalent, as approved by the national peak body, Speech Pathology Australia.

#### IN TASMANIA

There are no certified training courses in Tasmania for speech pathology.

### REGULATION

Speech pathology is a self-regulated allied health profession. They can apply for certification through Speech Pathology Australia.

### NOTES

This profile is a summary of the workforce employed by the Tasmanian Health Service and Department of Health.