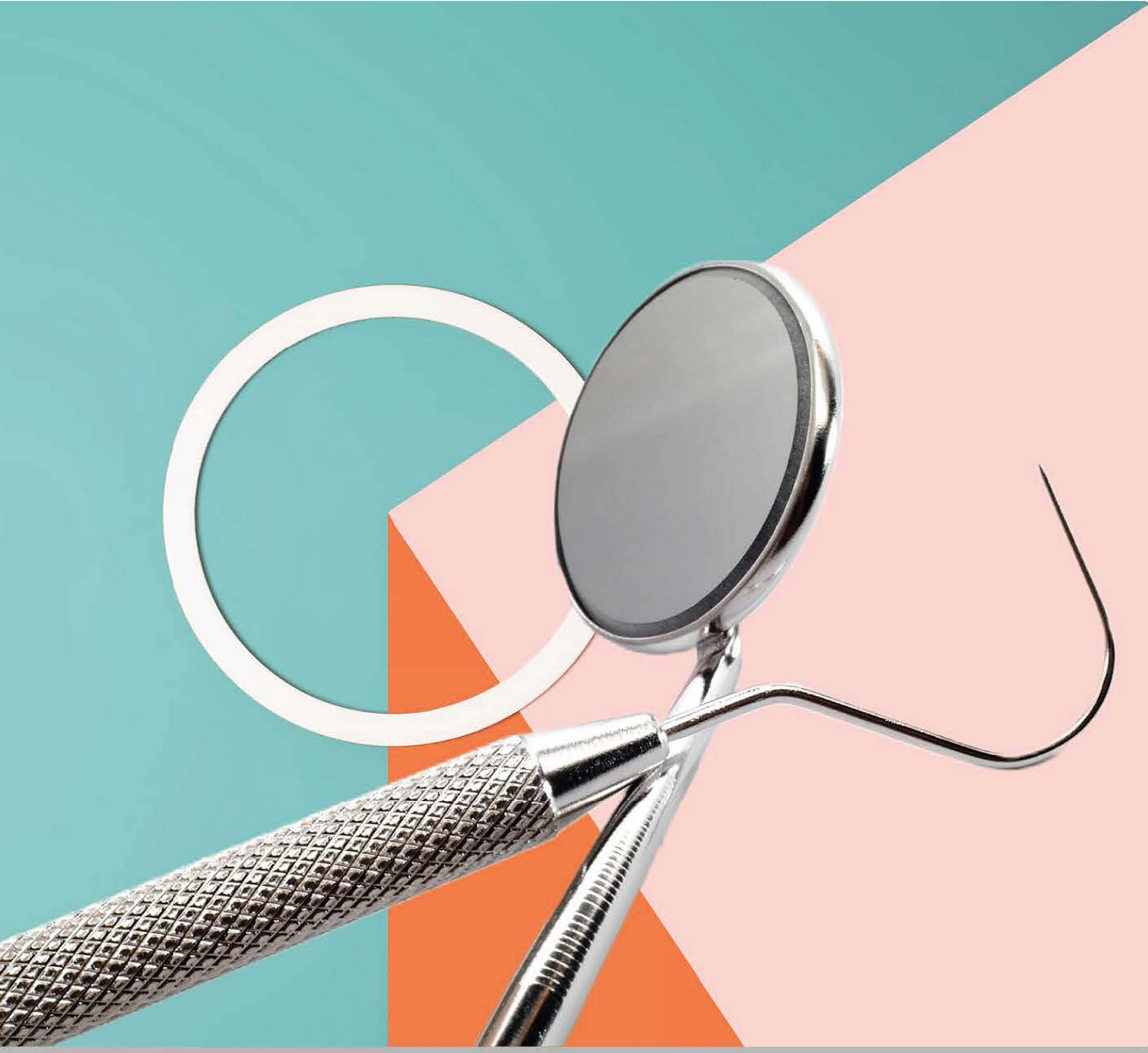

Australian Oral Health Workforce

The Australian Oral Health Workforce Cohort Study.

Second edition.

AUSTRALIAN ORAL HEALTH WORKFORCE

The Australian Oral Health Workforce Cohort Study. Second Edition

Edited by NICOLE STORMON, LOC DO, CHRISTOPHER SEXTON

NICOLE STORMON; MELANIE ALEY; WILLIAM CARLSON-JONES; JENNIFER GRAY; TAN NGUYEN; AND CHRISTOPHER SEXTON

The University of Queensland

Brisbane, Australia

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EXECUTIVE SUMMARY

NICOLE STORMON

Dental hygienists (**DH**s), Dental therapists (**DT**s), and Oral health therapists (**OHT**s) are registered dental practitioners. In 2023 there were 5,405 registered Oral health practitioners (**OHP**s) in Australia. This report aimed to report the current demographic, geographic and employment characteristics of **OHP**s in Australia.

The Australian Oral Health Workforce Cohort Study is a longitudinal cohort study following up **OHP**s over time. The first wave of data collection occurred in 2023 and subsequent waves planned biennially. This study builds upon The Oral Health Professions Workforce Survey 2020 was a cross-sectional study of **DH**, **DT** and **OHT**s.

Respondents were asked a series of demographic and employment characteristic questions and 431 individuals participated. Responses were weighted to the **Ahpra** population to report results representative of the national work. The majority of **OHP**s were 40 years or younger (60.9%) and female (91.4%).

- 58% of all **OHP**s held one job only.
- Over half (57%) of **OHP**s primary place of employment was in the private sector. Public sector was the primary sector of employment for 20%.
- **DH**s predominantly worked permanent part time (42%). **DT**s predominantly work in permanent full time (28%) and permanent part time (28%).
- **DT** and **DH**s median weekly hours worked were 30 hours, whereas **OHT**s median weekly hours worked were 37 hours.
- The median annual full-time equivalent (**FTE**) income was $103,941 for those working in the private sector. The median **FTE** income for those in public sector and Research, education and management were $93,000 and $121,600 respectively.
- As age and years of practice increased, the median **FTE** annual income reported also increased.
- The majority of **OHP**s were receiving superannuation (92%), had no other additional employment benefits (51%) and did not report working unpaid

overtime (57.8%).

- There are approximately 20.7 **OHP**s per 100,000 residents nationwide.
- Major Cities have higher rates of practitioner per population for **DH** and **OHT**s. the rate of **DT**s per population in Outer Regional and further remote areas is twice the rate in Major Cities.
- Half of current working practitioners expect to retire in 19 years.
- Just over half of **OHP**s had no intention to change their career in the next six-months.

The employment profile for **OHP**s were indicative of a stable and utilised workforce. The characteristics of respondents' principal place of employment were telling of the historical context to the occupations. **DH**'s were primarily employed in the private sector, where as **DT**s in public settings and **OHT**s across all sectors. The aging **DT** workforce approaches retirement and poses a potential issue for areas which they predominantly work such as the public sector and regional and remote areas.

BACKGROUND

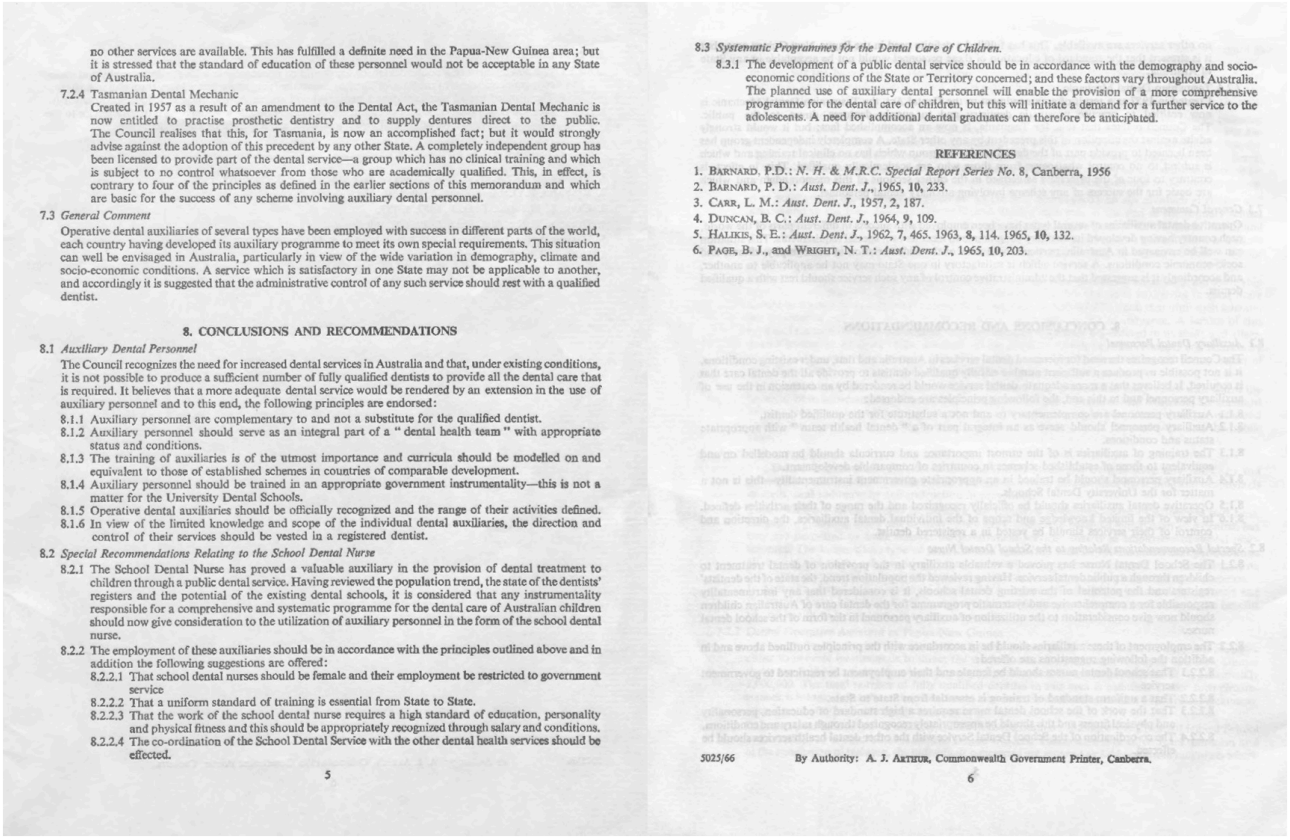
NICOLE STORMON

GLOBAL ORAL HEALTH AND WORKFORCE NEEDS

The global burden of oral diseases remains a significant public health challenge, with conditions such as dental caries, periodontal diseases, and oral cancers affecting billions of people worldwide (Jin et al. 2016). These diseases not only cause pain and discomfort, but also leads to substantial economic and social burdens due to lost productivity and increased healthcare costs (Jin et al. 2016). Over the past century, many countries introduced dental auxiliaries to supplement the dentist workforce to extend the reach of dental care. These practitioners operate under various titles such as dental hygienists, dental therapists, and oral health therapists. They play a critical role in providing preventive and restorative services. The scope of practice for these professionals varies across different regions, reflecting local needs, regulatory environments, and educational frameworks.

The school dental nurse program was established in New Zealand in 1921 (Leslie 1971). This initiative was developed to address the high prevalence of dental caries among school-aged children, particularly in rural and underserved areas. School dental nurses were trained to provide preventive and basic restorative dental care within the school setting, significantly improving access to dental services for children. This program proved highly successful and became a model for similar initiatives worldwide, demonstrating the effectiveness of utilising trained dental professionals to enhance public oral health outcomes.

HISTORY IN AUSTRALIA



no other services are available. This has fulfilled a definite need in the Papua-New Guinea area; but it is stressed that the standard of education of these personnel would not be acceptable in any State of Australia.

7.2.4 Tasmanian Dental Mechanic
Created in 1957 as a result of an amendment to the Dental Act, the Tasmanian Dental Mechanic is now entitled to practise prosthetic dentistry and to supply dentures direct to the public. The Council realises that this, for Tasmania, is now an accomplished fact; but it would strongly advise against the adoption of this precedent by any other State. A completely independent group has been licensed to provide part of the dental service—a group which has no clinical training and which is subject to no control whatsoever from those who are academically qualified. This, in effect, is contrary to four of the principles as defined in the earlier sections of this memorandum and which are basic for the success of any scheme involving auxiliary dental personnel.

7.3 *General Comment*
Operative dental auxiliaries of several types have been employed with success in different parts of the world, each country having developed its auxiliary programme to meet its own special requirements. This situation can well be envisaged in Australia, particularly in view of the wide variation in demography, climate and socio-economic conditions. A service which is satisfactory in one State may not be applicable to another, and accordingly it is suggested that the administrative control of any such service should rest with a qualified dentist.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 *Auxiliary Dental Personnel*
The Council recognizes the need for increased dental services in Australia and that, under existing conditions, it is not possible to produce a sufficient number of fully qualified dentists to provide all the dental care that is required. It believes that a more adequate dental service would be rendered by an extension in the use of auxiliary personnel and to this end, the following principles are endorsed:

8.1.1 Auxiliary personnel are complementary to and not a substitute for the qualified dentist.
8.1.2 Auxiliary personnel should serve as an integral part of a " dental health team " with appropriate status and conditions.
8.1.3 The training of auxiliaries is of the utmost importance and curricula should be modelled on and equivalent to those of established schemes in countries of comparable development.
8.1.4 Auxiliary personnel should be trained in an appropriate government instrumentality—this is not a matter for the University Dental Schools.
8.1.5 Operative dental auxiliaries should be officially recognized and the range of their activities defined.
8.1.6 In view of the limited knowledge and scope of the individual dental auxiliaries, the direction and control of their services should be vested in a registered dentist.

8.2 *Special Recommendations Relating to the School Dental Nurse*
8.2.1 The School Dental Nurse has proved a valuable auxiliary in the provision of dental treatment to children through a public dental service. Having reviewed the population trend, the state of the dentists' registers and the potential of the existing dental schools, it is considered that any instrumentality responsible for a comprehensive and systematic programme for the dental care of Australian children should now give consideration to the utilization of auxiliary personnel in the form of the school dental nurse.
8.2.2 The employment of these auxiliaries should be in accordance with the principles outlined above and in addition the following suggestions are offered:
8.2.2.1 That school dental nurses should be female and their employment be restricted to government service
8.2.2.2 That a uniform standard of training is essential from State to State.
8.2.2.3 That the work of the school dental nurse requires a high standard of education, personality and physical fitness and this should be appropriately recognized through salary and conditions.
8.2.2.4 The co-ordination of the School Dental Service with the other dental health services should be effected.

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8.3 *Systematic Programmes for the Dental Care of Children.*
8.3.1 The development of a public dental service should be in accordance with the demography and socio-economic conditions of the State or Territory concerned; and these factors vary throughout Australia. The planned use of auxiliary dental personnel will enable the provision of a more comprehensive programme for the dental care of children, but this will initiate a demand for a further service to the adolescents. A need for additional dental graduates can therefore be anticipated.

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5023/66 By Authority: A. J. Arthur, Commonwealth Government Printer, Canberra.

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Image 1. Page 5 and 6 of the he National Health and Medical Research Council report Dental Auxillary Personnel.

The concept of an auxiliary dental profession was introduced to Australia in 1965, inspired by the successful New Zealand school dental nurse model. The National Health and Medical Research Council reported a shortage in the dentist workforce and at its 60th session recommended training female dental nurses (Image 1).

"The National Health and Medical Research Council, at its 60th Session in October, 1965, recommended that, to relieve the shortage of dentists in Australia, Commonwealth and State clinics and school dental services should consider the employment of adequately trained female dental nurses as auxiliary personnel, to undertake limited procedures under the supervision of qualified dentists. It was also in October, 1965 that the Australian Dental Association adopted a policy supporting the employment of school dental nurses in Australia. At present the Australian Capital Territory and three States, New South Wales, Tasmania and South Australia, are moving forward quickly with plans to expand their school dental by utilising these auxiliary personnel. It Is anticipated that in the A.C.T. the first will be employed in 1967."

Source: The Parliament of the Commonwealth of Australia. Annual Report by the

Director-General of Health for Year 1965-66. Parliamentary Paper No. 170. Commonwealth Government Printing Office Canberra: 1966. Page 36.

The School Dental Nursing Service Act 1965 of Tasmania was established (Image 2) on the 10th of November 1965. This Act in Tasmania was superseded in 1976 with the School Dental Therapist Service Act 1976. These Acts, as well as other State and Territory Acts subsequently implemented, defined the qualification, entry requirements and role of the school dental therapist. The first dental therapy training program had its first intake of students in Tasmania in 1966, and South Australia shortly after in 1967.

Dental therapy curricula were originally two-years in length and trained practitioners to perform restorations and extractions on children under the supervision of dentists. Trainee Dental therapists were required to be female and unmarried (Image 3). Before the expansion of dental therapy programs into other states, areas like the Australian Capital Territory sent students to train in the Tasmanian program. Blaike (1974) published an overview of the curriculum for dental therapy training in South Australia (Blaikie 1974).

"Details regarding the training and employment of dental therapists were finalised during the year. These dental auxiliaries will, under the supervision of dentists, carry out the simpler types of fillings and extractions for children. To qualify as a dental therapist, suitable applicants of matriculation standard will be trained in Hobart for a two-year period. The first four students began their training in January 1968. The training school in Hobart is under the control of the Tasmanian Department of Health Services, with whom agreement was reached regarding the training of Commonwealth students."

Source: The Parliament of the Commonwealth of Australia. Annual Report by the Director-General of Health for Year 1967-68. Parliamentary Paper No. 181. Commonwealth Government Printing Office Canberra: 1968. Page 46-47.

Image 2. The Tasmanian School Dental Nursing Service Act 1965.

SCHOOL DENTAL NURSING SERVICE.

No. 32 of 1965.

AN ACT to make provision for a school dental nursing service. [10 *November* 1965.]

BE it enacted by His Excellency the Governor of Tasmania, by and with the advice and consent of the Legislative Council and House of Assembly, in Parliament assembled, as follows:—

Short title.

1 This Act may be cited as the *School Dental Nursing Service Act* 1965.

Interpretation.

2 In this Act, unless the contrary intention appears—

"committee" means the Dental Health Services Advisory Committee established under section four;

"dental nurse" means a member of the school dental nursing service who was appointed thereto as a dental nurse or who has been granted a dental nursing certificate;

"dental nursing certificate" means a certificate granted under section six;

"dental nursing school" means a school of dental nursing established under section five;

"hostel" means a hostel established under section five;

"school dental nursing service" means the school dental nursing service established under section three;

"student dental nurse" means a member of the school dental nursing service who is not a dental nurse.

The school dental nursing service.

3—(1) There shall be established in accordance with this Act a school dental nursing service to provide dental nursing services for persons who have not attained the age of sixteen years.

(2) The Governor may, on the recommendation of the Minister, appoint female persons to be members of the school dental nursing service either as dental nurses or as student dental nurses.

(3) A person shall not be appointed to be a member of the school dental nursing service as a dental nurse unless she—

(*a*) has been granted a dental nursing certificate; or

(*b*) has such qualifications, obtained elsewhere than in this State, as the Minister may approve,

Image 3. Trainee dental therapist in the Tasmanian program.

Trainee dental therapist from the A.C.T. Health Services Branch are among a group of students training in Tasmania

"Training facilities for ten Commonwealth dental therapists-in-training were provided in Hobart by the extension of the Tasmanian Training School. This building extension, together with the necessary equipment, was financed by the Commonwealth. Up to five Commonwealth dental therapists will graduate each year from the School. The first four therapists will complete their training in December, 1969."

Source: The Parliament of the Commonwealth of Australia. Annual Report by the Director-General of Health for Year 1968-69. Parliamentary Paper No. 170. Commonwealth Government Printing Office Canberra: 1969. Page 44.

A dental therapist instructing primary school children in dental hygiene at Hughs Primary School, Canberra

"The recruitment of dentists has continued to be a problem, although the position has been relieved by the employment of four dental therapists who completed their training in December, 1969. These are the first dental therapists to be employed in the Dental Service in the A.C.T."

Source: The Parliament of the Commonwealth of Australia. Director-General of Health. Annual Report for Year 1969-70. Parliamentary Paper No. 185. Commonwealth Government Printing Office Canberra: 1970. Page 52.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://uq.pressbooks.pub/australian-oral-health-workforce/?p=4#oembed-1

The NHMRC reported in the Director-General of Health Annual publication the progress of the implementation of the first dental therapy programs between the years of 1966 and 1970. Upon completion of their training, Dental therapists were employed within the school dental service to meet the unmet oral health needs of children. The Tasmanian Government in 1967 published a video of the training and work of a dental therapist, which is openly available through the Libraries Tasmania.

The profession of Dental hygiene was introduced to Australia in the late 1970s. The first Dental hygiene training program was established at the Adelaide Dental Hospital in South Australia in 1977. Similar, to Dental therapy the dental hygiene profession worked under the supervision of a Dentist performing periodontal skills. Early Dental hygiene training in Australia was one year in length teaching students about diseases aetiology, prevention and scaling techniques for the management of periodontal diseases (McIntyre 1982).

Over time, the role of a Dental hygienist and Dental therapist in Australia expanded to include a broader population and scope of skills. In 1991, The University of Queensland introduced a Bachelor of Applied Sciences in Oral Health. This tertiary level program brought together the training of Dental hygiene and Dental therapy for dual qualification of both professions (Tsang 2010). Following The University of Queensland, the next university to offer a dual qualification program was the Bachelor of Oral Health (BOH) at the University of Adelaide in 2002 (Rogers et al. 2018).

The title “Oral health therapist” was officially introduced in Australia following changes to the Dental Board of Australia’s Scope of Practice in 2006. This change integrated the roles of Dental hygienist’s and Dental therapist’s into a single, dual-qualified profession known as Oral health therapy. This restructuring aimed to streamline education and training pathways while expanding the scope of practice to include a broader range of preventive and restorative dental services. Consequently, individuals graduating from accredited programs were awarded the title of Oral health therapist, reflecting their dual qualifications and enhanced role within the dental profession in Australia.

The shift towards integrated oral health therapy programs meant that new graduates from around the mid-2000s onwards were trained as dual-qualified Oral health therapists rather than solely as Dental therapists. Due to the implementation of Oral health therapy program, all Dental therapy programs were superceeded and there currently are no programs graduating dental therapists in Australia.

CURRENT AUSTRALIAN CONTEXT

The introduction of national registration under the Australian Health Practitioner Regulation Agency (**Ahpra**) in July 2010 marked a major milestone for oral health professionals. Since its establishment, **AHPRA** has overseen the national registration and accreditation of health practitioners, including those in the oral health field. This unified system ensures consistent standards of practice and professional accountability across the country, providing a cohesive regulatory framework for dental practitioners.

In this report the umbrella term Oral Health Practitioner (**OHP**) is used to refer to the collective of the **Ahpra** registered practitioners including Dental hygienist (**DH**), Dental therapist (**DT**), Oral health therapist (**OHT**) or combination of these. In 2020, (**OHP**s) were included in the Health Professionals Award. This milestone provided a formal structure for employment conditions, including wages, work hours, and other employment rights, thereby improving job security and professional recognition for these practitioners.

Historically, the Dental Board of Australia required **OHP**s to work within a structured professional relationship with a dentist. This requirement was part of the scope of practice standard and guidelines, which limited the independence of Dental hygienists, Dental therapists, and Oral health therapists. In 2020, the Dental Board of Australia revised its scope of practice standard, resulting in a landmark development for the profession. The key changes included the removal of the structured professional relationship requirement, granting **OHP**s professional autonomy. The term “not an independent practitioner” was eliminated from the standard. This recognised that all dental practitioners, including Dentists, Dental prosthetists, **DH**s, **DT**s, and **OHT**s, are responsible for their professional decisions, treatments, and the advice they provide.

Following the recognition of **OHP**s as independent practitioners, significant progress was made towards securing Medicare provider numbers for these professionals. Obtaining Medicare provider numbers was a crucial advancement allowing **OHP**s to participate in Commonwealth-funded schemes. The increase in professional autonomy and recognition of the **OHP** role allows for less reliance on Dentists and thereby expanding access to dental care for the Australian public.

In 2023, approximately 5000 individuals were registered as an **OHP** (Dental Board of Australia, 2023). There are currently two accredited training programs for dental hygiene, one delivered by Technical and Further Education (**TAFE**) and another by a university (Dental Board of Australia, 2024). Additionally, there are eight Bachelor of Oral Health (**BOH**) programs graduating Oral health therapists (Dental Board of Australia, 2024).

PURPOSE AND SCOPE OF THE STUDY

The Australian Oral Health Workforce Study aims to understand and describe the oral health professions working conditions across the country. Building upon the first study published in 2020, this follow-up report seeks to describe the workforce post-COVID pandemic and commence a longitudinal cohort study to investigate insights into the dynamics of the workforce over time (Stormon et al. 2020). The primary objectives of this study are to assess workforce demographics, geographic distribution, and practice patterns. Continued investigation into the OHP workforce enables policymakers and stakeholders to make informed decisions regarding workforce planning and resource allocation. Understanding workforce characteristics and distribution ensures **OHP**s meet the evolving needs of the Australian population.

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PART I.

METHODS

CHAPTER 1.

SURVEY INSTRUMENT

NICOLE STORMON

OUTCOME MEASURES

A self-reported questionnaire was developed using the 2020 Australian Oral Health Workforce survey items (Stormon et al. 2020).

Participants were asked their current age, gender, principal Australian State or Territory of practice, and the number of years they had been practicing as a registered dental practitioner. Participants were asked to select their dental practitioner **Ahpra** registration category, including if they held multiple registration types. Career intentions were measured through reporting intended career changes in the following six months, and intended age of retirement from being a practitioner.

Items relating to employment in the previous financial year (1 July 2021 to 30 June 2022) were asked. For this reporting period participants were asked to report the number of paid oral health related jobs being worked concurrently, estimated gross annual income for the financial year, average hours worked weekly and employment types (business owner, self-employed, full time, part time, casual, fixed term, locum).

Participants were asked for their current primary and secondary (if applicable) place of employment the sector/type of workplace, if they were receiving compulsory superannuation contributions, other employment benefits, and the number of unpaid hours they work each week. Participants were able to submit partially completed questionnaires.

ETHICAL CONSIDERATIONS

The Australian Oral Health Workforce Cohort Study was reviewed and approved by the University of Queensland Human Ethics Research Low and Negligible Risk Committee (clearance number 2022/HE002328).

SOURCES

- Stormon, Nicole Lauren, Tran, Carol, and Suen, Bill (2021). Australian Oral Health Workforce. Brisbane, QLD Australia: The University of Queensland.

CHAPTER 2.

DATA COLLECTION AND VALIDITY

CHRISTOPHER SEXTON

This study aims to explore the workforce characteristics of Australian Oral Health Professionals over time. To achieve this aim, the study's objective is to enroll a national sample of **OHP**s that will participate in biennial, longitudinal surveys. The surveys are expected to be undertaken in 2023, 2025 and finishing in 2027.

The baseline study commenced in 2023 and participants were recruited through voluntary, convenience sample methods with data collected using the online survey platform, Qualtrics. Volunteers were recruited with the assistance of the oral health professions' associations: Dental Hygienists Association of Australia (**DHAA**) and the Australian Dental and Oral Health Therapist's Association (**ADOHTA**). Participation with the survey was encouraged through social media platforms, with links to the survey made widely available through Twitter/X and Facebook.

Data collection for the baseline survey commenced on 1 February 2023 and the final survey was submitted on 28 March 2023. In total, there were 828 complete or partial submissions and 643 (77.7%) submissions were completed. However, there were responses that did not meet the internal and external validity checks that were established before the commencement of this project. Submissions that were not complete were included in the validity checks and calculations.

The internal validity checks required participants to repeat their response about their gender at two times within the survey. There were 39 (4.7%) responses that were not valid based on this condition. The second validity check required participants to respond TRUE to a given question and 3 (0.4%) participants were deemed invalid for this condition.

The external validity check was completed by a member of the research team with no connections to the professions. The researcher compared the names and location details of the survey participants with the registration details with the (**Ahpra**) registry of practitioners. The names, practicing location (Australian state), registration details were checked with the registry. This process identified surveys that were commenced more than once by the same individual based on either name or email and the survey that

was most complete was retained while deleting the other record. There were 419 (50.6%) survey participants that met external validity criteria.

There were 431 (52.1%) of 828 responses that were deemed as valid through the internal and external validity check process.

Table 2.1 Summary of internal and external validity check for the 828 responses received for the baseline Australian Oral Health Workforce Cohort Study.

	All received responses
	N = 828
Completed baseline survey	
Finished	643 (77.7)
Incomplete	185 (22.3)
Percentage of survey finished	100 (40, 100, 100)+
Internal Validity 1: Repeated question correctly	
Valid	588 (93.8)
Invalid	39 (6.2)
Incomplete response	201
Internal Validity 2: Responded True when required	
Valid	631 (99.5)
Invalid	3 (0.5)
Incomplete response	194
External Validity 3: Reponses checked against Ahpra registry	
Valid	419 (50.6)
Invalid	409 (49.4)
Repeated entries identified	
Unique	798 (96.4)
Repeated	30 (3.6)
Summary of external validity checks	
Complete external validity	420 (50.7)
Some external validity	40 (4.8)
No external validity	368 (44.4)
Summary of all validity checks	
Eligible	431 (52.1)
Ineligible	397 (47.9)

+ Mean (Minimum, Median, Maximum)

CHAPTER 3.

DATA WEIGHTING

CHRISTOPHER SEXTON

SAMPLE COMPARED TO POPULATION

The baseline Australian Oral Health Workforce Cohort Study collected demographic variables that were used to weight the sample to registry data collected from **Ahpra**. This data included counts of:

- Gender (Male/Female)
- Age (years)
- Division:
    - Dental hygienist (**DH**)
    - Dental therapist (**DT**)
    - Oral heakth therapist (**OHT**)
    - Combinations of these professions
- Primary state of practice
    - Australian Capital Territory (**ACT**)
    - New South Wales (**NSW**)
    - Northern Territory (**NT**)
    - Queensland (**QLD**)
    - South Australia (**SA**)
    - Tasmania (**TAS**)
    - Victoria (**VIC**)
    - Western Australia (**WA**)

This non-identifiable data was requested from Ahpra through freedom of information request. This population level data was compared to the eligible sample to the population of registered oral health practitioners within these divisions. A comparison of the percentages for the gender, age, state and division of practice show that the sample of respondents are similar to the population of available data from **Ahpra** (Table 3.1).

Table 3.1. Australian oral health workforce survey respondent characteristics compared to data from the Australian Health Profession Regulation Agency.

	Source of Data	
	Survey	**Ahpra**
	N = 431	N = 5,405
	n (%)	n (%)
Gender		
Male	33 (7.8)	467 (8.6)
Female	391 (92.2)	4,938 (91.4)
Unknown	7	0
Age (years)		
Less than 25	35 (8.3)	478 (8.8)
25 – 29	69 (16.3)	910 (16.8)
30 – 34	93 (21.9)	1,075 (19.9)
35 – 39	62 (14.6)	816 (15.1)
40 – 44	50 (11.8)	545 (10.1)
45 – 49	32 (7.5)	426 (7.9)
50 – 54	32 (7.5)	396 (7.3)
55 – 59	33 (7.8)	337 (6.2)
60+	18 (4.3)	422 (7.8)
Unknown	7	0
Primary state of practice		
NSW	91 (21.6)	1,406 (26.0)
VIC	79 (18.8)	1,192 (22.1)
QLD	104 (24.7)	968 (17.9)
SA	82 (19.5)	754 (14.0)
WA	42 (10.0)	852 (15.8)
TAS	9 (2.1)	89 (1.6)
ACT	7 (1.7)	99 (1.8)
NT	7 (1.7)	45 (0.8)
Unknown	10	0
Practitioner division		
DH	133 (31.4)	1,446 (26.8)
DT	34 (8.0)	667 (12.3)
OHT	225 (53.1)	2,787 (51.6)
DT/DH	25 (5.9)	382 (7.1)
Other combinations	7 (1.7)	123 (2.3)
Unknown	7	0

A list of minor differences between the sample and **Ahpra** are:

- Males were underrepresented;
- Age groups follow a similar pattern but the range of respondents is lower as there were no respondents greater in age than 69;
- There were few respondents that were older than 60;
- **QLD** and **SA** respondents were over-represented and **NSW**, **VIC** and **WA** were underrepresented;
- **TAS**, **ACT** and **NT** had limited number of respondents in total;
- **DH**s were over-represented; and
- The division of practice that had limited number of respondents were **DT**s, **DT**/ **DH** and Other combination.
- There were 10 respondents that did not provide sufficient data on gender, age, state of practice or practitioner division. These respondents were excluded from weighting.

RECODING DATA FOR WEIGHTING

The sample and population datasets were prepared for calculating the weights of the sample to be representative of the population through the following changes:

- The sample did not contain data from respondents older than 69, these respondents were excluded **Ahpra** population;
- Age groups were recoded for the sample and the Ahpra population to: Less than 30, 30 to 40, 40 to 50 and 50+;
- **TAS**, **ACT** and **NT** were recoded into one group due to small numbers in the sample;
- Divisions were recoded for the sample and the **Ahpra** population to **DH**, **OHT**s, and All other combinations.

Base weights are the inverse of probability for being included in the sample. To calculate the weights, the sample has to be mutually exclusive of the population. Therefore, the number of sample respondents for all combinations of gender, age, state and division were subtracted from the **Ahpra** populations. The *Australian Oral Health Workforce Cohort 2023 Sample* were marked as respondents and the remaining **Ahpra** population were non-respondents (Table 3.2).

Table 3.2. Mutually exclusive groups of the Australian oral health workforce survey respondents compared to non-respondents from the Australian Health Profession Regulation Agency.

	Mutually exclusive groups	
	Respondent	**Non-respondent**
	N = 431	N = 3,907
	n (%)	n (%)
Gender		
Male	33 (7.8)	189 (4.8)
Female	391 (92.2)	3,718 (95.2)
Unknown	7	0
Age (years)		
Less than 30	104 (24.5)	1,147 (29.4)
30 – 40	155 (36.6)	1,560 (39.9)
40 – 50	82 (19.3)	653 (16.7)
50 or more	83 (19.6)	547 (14.0)
Unknown	7	0
Primary state of practice		
NSW	91 (21.6)	1,127 (28.8)
VIC	79 (18.8)	864 (22.1)
QLD	104 (24.7)	671 (17.2)
SA	82 (19.5)	590 (15.1)
WA	42 (10.0)	578 (14.8)
TAS/ACT/NT	23 (5.5)	77 (2.0)
Unknown	10	0
Practitioner Division		
DH	133 (31.4)	1,113 (28.5)
OHT/ DT	225 (53.1)	2,345 (60.0)
All other combinations	66 (15.6)	449 (11.5)
Unknown	7	0

MODELLING PSEUDO-INCLUSION PROBABILITIES

Quasi-randomisation attempts to model the pseudo-inclusion probabilities to correct for selection bias in non-probability samples. The inverse of the pseudo-probabilities are the base weights for the sample. The probabilities are modelled using logistic regression to model responses for given covariates. This process is similar to propensity score-adjustment.

Univariate logistic regression models that used the predictors gender, age, state and profession as predictors of inclusion in the sample were initially built. Akaike's Information Criteria (**AIC**) identified the starting model with the lowest **AIC** value. Subsequent factors were added to the model and log-likelihood ratio tests were used to assess whether the additional factors improved the model fit. The parsimonious model that minimised **AIC** and maximised the log-likelihood included the main effects for state, practitioner division and gender to predict the probability of responding to the survey.

The base weights were adjusted by the formula:

$$w_{\text{adj}} = w_{\text{base}} \times \frac{\widehat{N} - n}{\widehat{N}}$$

where:
w_{adj}= Adjusted weight;
w_{base} = Propensity score-adjusted base weight;
$\widehat{N}$ = Estimate of the reference population size calculated by $\widehat{N} = \sum_{s_{\text{ref}}} w_{\text{base}}$; and
n = Number of participants in the sample.

The probabilities for each combination of state, profession, gender and age groups inverted formed the propensity score-adjusted *base weights* for the survey data. The resulting weights are not scaled to match the sample size of the survey.

This adjustment maintains the weighted percentages from the base weights but scales the weighted sample to approximate the unadjusted respondent sample size (Table 3.3). This adjustment is necessary as the sample is approximately almost one-tenth the quantity of the reference data from **Ahpra**.

CALIBRATION TO REFERENCE DATA

The next stage of adjustment is to calibrate the weights so that marginal percentages of the sample covariates are tuned to match the percentages of the target population. Generalised regression (**GREG**) raking estimators were used to tune the weights of the sample to match the percentages of the **Ahpra** population of **OHP**s.

Some weights of practitioners were substantially weighted higher and may have undue influence on subsequent estimations. Due to this, calibration was repeated with a maximum weight enforced. This weighting was trimmed at w_i= 25 and weights higher than this were re-distributed iteratively across the remaining sample to maintain the population size from Ahpra.

The effect of trimming the weight should reduce variance at the expense of precision. This is demonstrated in Table 3.4, where the point estimates for the marginal percentages of the trimmed dataset vary from the **Ahpra** percentages but the width of the condifence intervals are decreased.

Table 3.3. Unweighted Australian oral health workforce survey respondent characteristics adjusted by base weights and adjusted weights. Australian Health Practitioner Regulation Agency provided for comparison.

	Sample	Base weights	Propensity score adjusted weights	Ahpra Population
	N (%)	**(95% CI)**	**(95% CI)**	**N (%)**
	N = 421	N = 476	N = 424	N = 5,389
Gender				
Male	33 (7.8)	8.6 (6.18, 11.9)	8.6 (6.18, 11.9)	466 (8.6)
Female	388 (92.2)	91.4 (88.1, 93.8)	91.4 (88.1, 93.8)	4,923 (91.4)
Age (years)				
Less than 30	101 (24.0)	23.6 (19.8, 27.9)	23.6 (19.8, 27.9)	1,388 (25.8)
30 – 40	155 (36.8)	36.8 (32.3, 41.6)	36.8 (32.3, 41.6)	1,891 (35.1)
40 – 50	82 (19.5)	19.5 (15.9, 23.6)	19.5 (15.9, 23.6)	971 (18.0)
50 or more	83 (19.7)	20.1 (16.5, 24.2)	20.1 (16.5, 24.2)	1,139 (21.1)
Primary state of practice				
NSW	91 (21.6)	20.8 (17.2, 24.9)	20.8 (17.2, 24.9)	1,404 (26.1)
VIC	79 (18.8)	18.2 (14.8, 22.1)	18.2 (14.8, 22.1)	1,189 (22.1)
QLD	104 (24.7)	25.3 (21.3, 29.7)	25.3 (21.3, 29.7)	964 (17.9)
SA	82 (19.5)	19.7 (16.2, 23.9)	19.7 (16.2, 23.9)	751 (13.9)
WA	42 (10.0)	9.6 (7.13, 12.7)	9.6 (7.13, 12.7)	849 (15.8)
TAS/ACT/NT	23 (5.5)	6.4 (4.32, 9.52)	6.4 (4.32, 9.52)	232 (4.3)
Division of practice				
DH	132 (31.4)	31.5 (27.2, 36.2)	31.5 (27.2, 36.2)	1,438 (26.7)
OHT/ DT	223 (53.0)	52.0 (47.2, 56.8)	52.0 (47.2, 56.8)	2,787 (51.7)
All other combinations	66 (15.7)	16.4 (13.1, 20.4)	16.4 (13.1, 20.4)	1,164 (21.6)

Table 3.4. Unweighted Australian oral health workforce survey respondent characteristics adjusted by base weights and adjusted weights. Australian Health Practitioner Regulation Agency provided for comparison.

	Raked	Raked and trimmed	Ahpra population
	(95% CI)	(95% CI)	n (%)
	N = 5,389	N = 5,389	N = 5,389
Gender			
Male	8.6 (6.1, 12.1)	8.7 (6.2, 12.2)	466 (8.6)
Female	91.4 (87.9, 93.9)	91.3 (87.8, 93.8)	4,923 (91.4)
Age (years)			
Less than 25	8.9 (6.31, 12.3)	9.0 (6.4, 12.5)	478 (8.9)
25 – 29	16.9 (13.3, 21.2)	17.0 (13.4, 21.3)	910 (16.9)
30 – 34	19.9 (16.3, 24.2)	20.3 (16.6, 24.5)	1,075 (19.9)
35 – 39	15.1 (11.8, 19.2)	15.4 (12.1, 19.5)	816 (15.1)
40 – 44	10.1 (7.60, 13.3)	10.3 (7.8, 13.6)	545 (10.1)
45 – 49	7.9 (5.5, 11.2)	8.0 (5.6, 11.3)	426 (7.9)
50 – 54	7.3 (5.1, 10.5)	7.4 (5.2, 10.6)	396 (7.3)
55 – 59	6.3 (4.3, 9.0)	6.3 (4.4, 9.1)	337 (6.3)
60 – 64	5.6 (3.0, 10.3)	4.2 (2.3, 7.7)	302 (5.6)
65 – 69	1.9 (0.9, 4.1)	2.0 (0.9, 4.1)	104 (1.9)
Primary state of practice			
NSW	26.1 (21.6, 31.0)	25.9 (21.6, 30.8)	1,404 (26.1)
VIC	22.1 (18.0, 26.8)	22.1 (18.1, 26.7)	1,189 (22.1)
QLD	17.9 (14.7, 21.6)	18.2 (15.0, 21.8)	964 (17.9)
SA	13.9 (11.1, 17.3)	14.1 (11.3, 17.5)	751 (13.9)
WA	15.8 (11.9, 20.6)	15.6 (11.8, 20.4)	849 (15.8)
TAS	1.6 (0.82, 3.2)	1.7 (0.8, 3.3)	88 (1.6)
ACT	1.8 (0.7, 4.6)	1.6 (0.7, 3.5)	99 (1.8)
NT	0.8 (0.4, 1.9)	0.9 (0.4, 2.0)	45 (0.8)
Practitioner division			
DH	26.7 (22.6, 31.2)	27.1 (23.0, 31.6)	1,438 (26.7)
DT	12.3 (8.8, 17.0)	11.5 (8.3, 15.8)	664 (12.3)
OHT	51.7 (46.5, 56.9)	52.2 (47.1, 57.3)	2,787 (51.7)
DT/ DH	7.0 (4.6, 10.4)	6.8 (4.6, 10.0)	377 (7.0)
Other combination	2.3 (1.1, 4.8)	2.3 (1.1, 4.86)	123 (2.3)

QUALITY OF SURVEY WEIGHTS

The quality of the survey weights throughout the calculation process is demonstrated in the following and table. The weighted sample numbers show how the weights have changed the estimated sample size to finally be equal to the Ahpra registered oral health practitioners. The mean weights and standard deviation values (**SD**) show how the mean weight has changed after each calculation and adjustment. Further, the standard deviation was reduced when the raked weights were trimmed for the extreme values.

Overall, the reduction in the variation as measured by **SD** after trimming does not improve the precision of the percentage estimates. Therefore, the untrimmed raked weights were used for all weighted analysis in this report.

Table 3.5. Summary statistics of staged weight calculations.

Weighting type	Individuals	Weighted numbers	Minimum	Maximum	Mean	SD	Median	IQR
Base	421	476	1.059	1.786	1.131	0.075	1.113	0.067
Adjusted	421	424	0.942	1.589	1.007	0.066	0.990	0.060
Raked	421	5389	4.164	41.011	12.800	5.370	11.923	7.152
Raked (trim)	421	5389	4.388	25.000	12.800	4.578	12.148	7.152

CHAPTER 4.

ANALYSIS

CHRISTOPHER SEXTON

DESCRIPTIVE ANALYSIS (ALL PARTS)

The analysis was conducted using R Studio, with descriptive statistics summarising data relevant to the chapters' focus. Bivariate tables were generated to present weighted percentages and 95% confidence intervals. Where appropriate, the results were visualised graphically in figures to enhance interpretability and highlight key findings.

GEOGRAPHIC ANALYSIS (PART IV)

Practitioner state of practice and registration status were obtained through application to Ahpra. A summary of this data was detailed in previous chapters and used for weighting the survey responses for this report. This data was used to calculate the number of practitioners by the population of Australia in 2021, which was the population at the last national census.

This data was used to calculate the number and rate per 100,000 Australian residents for oral health professional. Residents from each state that were located in either the Migratory, offshore and shipping, or had not usual address were included in estimating the state's rate per population but not included in the estimates for the rates by region.

The data acquired from Ahpra was linked with the Oral Health Workforce Survey to calculate the number and rate per 100,000 Australian residents by regional areas (Major City, Inner Regional, and Outer Regional and further remote). Outer Regional, Remote and Very Remote areas were combined due to the small number of practitioners and population that reside in these areas influencing the validity of these estimates. Some respondents from the survey had not provided their postcode for the place of practice, so multiple imputation using chained equations informed by the respondents age group, gender, state, and profession were used to include these respondents in the calculations that include region as a predictor.

Estimates for the number of practitioners per 100,000 population by characteristic and region were calculated using the weighted Oral Health Workforce Survey data and population data from Australian Bureau of Statistics (Appendix Tables 13.1 and 13.2).

Number of years until retirement was calculated using responses from the Oral Health Workforce Survey. These responses are summarised as median, 25th percentile and 75th percentile. The median represents the number of years when 50 percent of practitioners estimate they will have retired, and the 25th percentile is the corresponding number of years when 25 percent of practitioners estimate they will retire.

Estimates that are based on less than five respondents have been marked and should be interpreted with caution. However, this data has been provided for complete transparency.

PART II.

SAMPLE CHARACTERISTICS

CHAPTER 5.

CHARACTERISTICS OF SURVEY PARTICIPANTS

CHRISTOPHER SEXTON AND NICOLE STORMON

SURVEY CHARACTERISTICS

Table 5.1. reports the characteristics of the oral health workforce by practitioner division by **Ahpra** at the time of the survey. **DH**'s had a higher proportion of the workforce in the mid-age brackets and 4.1% males. Compared to other states and territories, **SA** had a higher proportion of **DH**s. Two thirds of the **DT** workforce were 50 years of age or older. **OHT**s were younger with 44.3% less than 30 years and 42.1% 30-39 years of age. **OHT**s had the highest proportion of males with 12.0%.

The unweighted and weighted characteristics of survey participants are reported in Table 5.2. Survey respondents underrepresented males and those aged 60 years or older. Geographically, survey respondents from **QLD** and South Australia were overrepresented, whereas those from **NSW**, **VIC**, and **WA** were underrepresented. **DH**s were overrepresented in the sample, while **DT**s had fewer respondents.

Following adjustment, **OHP**s were predominantly female consisting of 91.4% of the workforce. The age distribution was negatively skewed towards younger ages, with 60.9% less than 40 years of age. The Australian states of **NSW** (26.1%), **VIC** (22.1%) and **QLD** (17.9%) had the largest proportions of **OHP**s. **OHT**s consisted of over half (51.7%) of the **OHP** workforce, followed by **DH**s (26.7%).

The unweighted characteristics of survey respondents by division are reported in Appendix Table 5.1.

*Table 5.1. Characteristics of the oral health workforce by practitioner division by **Ahpra**.*

	Practitioner divisions				
	DH	**DT**	**OHT**	**DT/DH**	**Other combination**
	N = 1,462	N = 671	N = 2,810	N = 384	N = 123
	n (%)	n (%)	n (%)	n (%)	n (%)
Age (years)					
Less than 30	90 (6.2)	0 (0.0)	1,246 (44.3)	1 (0.3)	63 (51.2)
30 – 39	487 (33.3)	40 (6.0)	1,184 (42.1)	155 (40.4)	38 (30.9)
40 – 49	482 (33.0)	127 (18.9)	233 (8.3)	120 (31.3)	18 (14.6)
50+	403 (27.6)	504 (75.1)	147 (5.2)	108 (28.1)	4 (3.3)
Gender					
Male	60 (4.1)	17 (2.5)	338 (12.0)	37 (9.6)	19 (15.4)
Female	1,402 (95.9)	654 (97.5)	2,472 (88.0)	347 (90.4)	104 (84.6)
State of registration					
NSW	357 (24.7)	131 (19.6)	816 (29.3)	56 (14.7)	46 (37.4)
VIC	218 (15.1)	111 (16.6)	734 (26.3)	98 (25.7)	31 (25.2)
QLD	191 (13.2)	113 (16.9)	543 (19.5)	108 (28.3)	13 (10.6)
SA	343 (23.7)	52 (7.8)	292 (10.5)	57 (14.9)	10 (8.1)
WA	268 (18.5)	210 (31.5)	301 (10.8)	52 (13.6)	21 (17.1)
TAS	18 (1.2)	34 (5.1)	32 (1.1)	3 (0.8)	2 (1.6)
ACT	40 (2.8)	8 (1.2)	46 (1.7)	5 (1.3)	0 (0.0)
NT	11 (0.8)	8 (1.2)	23 (0.8)	3 (0.8)	0 (0.0)

Table 5.2. Unweighted and weighted characteristics of the oral health workforce survey.

	Unweighted responses	Weighted to oral health workforce
	n (%)	% (95% CI)
Age (years)		
Less than 30	101 (24.0)	25.8 (21.4, 30.6)
30- 39	155 (36.8)	35.1 (30.4, 40.1)
40 – 49	82 (19.5)	18.0 (14.5, 22.1)
50 – 59	65 (15.4)	13.6 (10.5, 17.4)
60 or more	18 (4.3)	7.5 (4.6, 12.2)
Gender		
Male	33 (7.8)	8.6 (6.1, 12.1)
Female	388 (92.2)	91.4 (87.9, 93.9)
State of primary practice		
NSW	91 (21.6)	26.1 (21.6, 31.0)
VIC	79 (18.8)	22.1 (18.0, 26.8)
QLD	104 (24.7)	17.9 (14.7, 21.6)
SA	82 (19.5)	13.9 (11.1, 17.3)
WA	42 (10.0)	15.8 (11.9, 20.6)
TAS	9 (2.1)	1.6 (0.8, 3.2)
ACT	7 (1.7)	1.8 (0.7, 4.6)
NT	7 (1.7)	0.8 (0.4, 1.9)
Practitioner division		
DH	132 (31.4)	26.7 (22.6, 31.2)
DT	34 (8.1)	12.3 (8.8, 17.0)
OHT	223 (53.0)	51.7 (46.5, 56.9)
DT/DH	25 (5.9)	7.0 (4.6, 10.4)
Other combination	7 (1.7)	2.3 (1.1, 4.8)

PART III.

EMPLOYMENT CHARACTERISTICS

CHAPTER 6.

NUMBER OF CONCURRENT JOBS

WILLIAM CARLSON-JONES AND JENNIFER GRAY

Key Takeaways

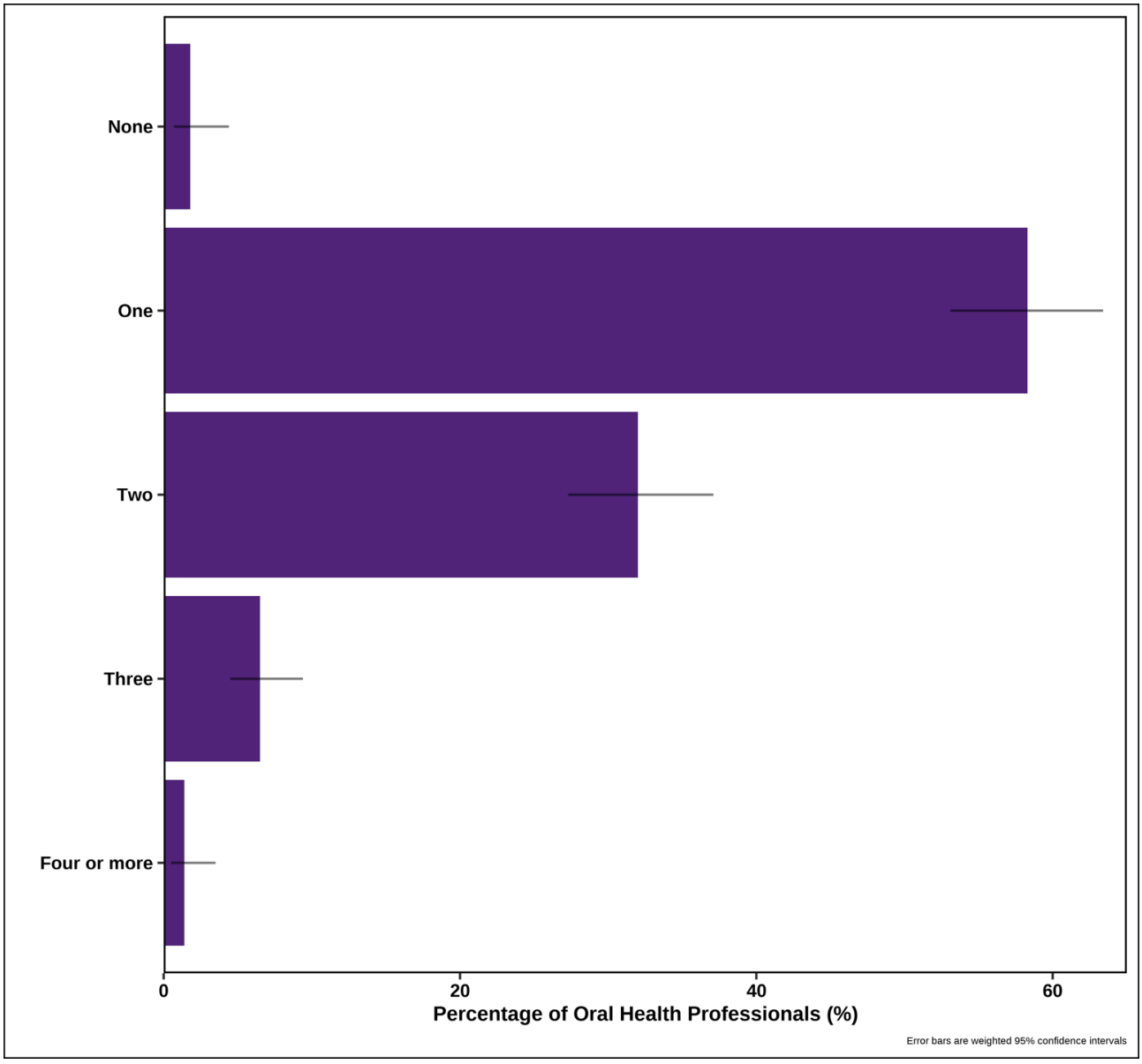
This chapter reports the number of concurrent jobs held by profession in the oral health workforce.

- 58.3% of **OHP**s held one job in the oral health workforce.
- Around a third (32%) of **OHP**s held two concurrent jobs and less than 7% of **OHP**s held three or more concurrent jobs.
- 98.2% of **OHP**s were employed in the FY 2021/2022.

NUMBER OF JOBS

Figure 6.1 displays the weighted number of jobs concurrently held by **OHP**s. Over half (58.3%) of **OHP**s held just one job in the oral health workforce. Nearly one-third (32.0%) of **OHP**s held two concurrent jobs, while a smaller percentage held three concurrent jobs (6.5%). A small percentage of the workforce reported not holding employment in the FY 2021/2022 (1.8%) and a smaller percentage reported holding four or more jobs (1.4%).

Figure 6.1. Weighted number of jobs concurrently held.

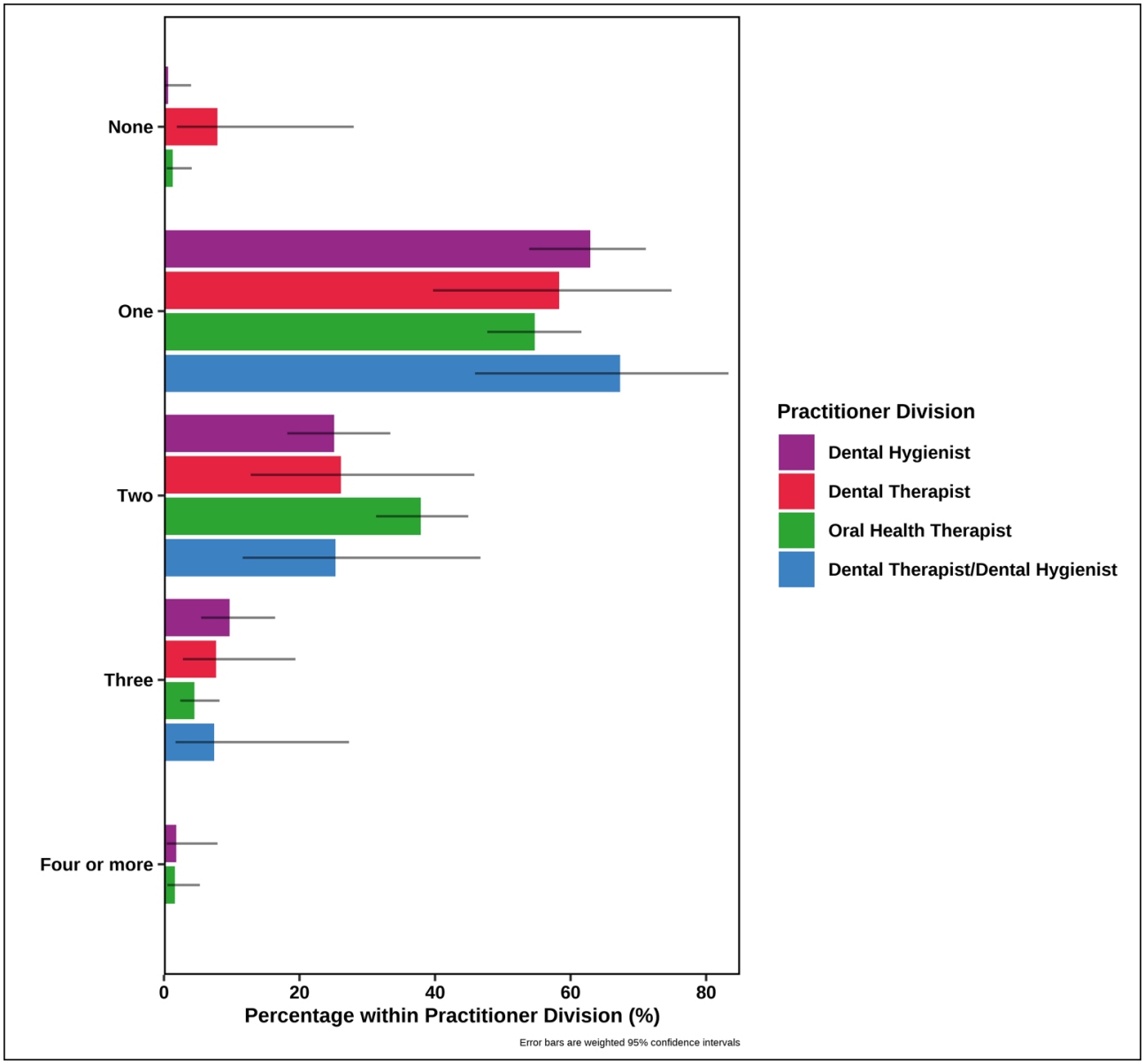


NUMBER OF JOBS BY DIVISION

Figure 6.2. presents the weighted number of jobs concurrently held by **OHP**s by division. Over half of **DT**s held one job (58.3%) and approximately a quarter held two jobs concurrently (26.1%). A smaller proportion of **DT**s were reported to hold three jobs concurrently (7.7%). Nearly two-thirds of **DH**s held one job (62.9%) and a quarter held two jobs concurrently (25.1%). Approximately ten percent of **DH**s were reported to hold three jobs concurrently (9.7%).

More than half of the **OHT**s held one job (54.7%), while over a third held two jobs concurrently (37.9%). A small percentage of **OHT**s were reported to hold three jobs concurrently (4.5%) and four or more jobs concurrently (1.6%). Among dual-qualified **DT**/**DH**s, over two-thirds held one job (67.3%), about a quarter held two jobs concurrently (25.3%), and a small percentage held three jobs concurrently (7.4%). Less than a tenth of **DT**s (7.9%) reported that they did not hold any jobs, and only a small percentage of **OHT**s (1.3%) and **DH**s (0.6%)

Figure 6.2. Weighted number of jobs concurrently held by division.



INTERPRETATION

The number of concurrent jobs held by **OHP**s varied across divisions, reflecting notable trends in the workforce. Most **OHP**s held one job, highlighting that the majority of the workforce maintained stable employment in a single role. Additionally, the low unemployment rate across the divisions suggests a strong demand for **OHP**s in the workforce, with limited numbers reporting no employment.

Variations in job-holding patterns were evident among different registration divisions. **DT**s exhibited a higher rate of unemployment compared to other divisions, which may reflect the older age profile of this workforce and a possible trend toward retirement. This aligns with broader workforce patterns where older practitioners begin transitioning out of clinical roles as they approach retirement age (Australian Institute of Health and Welfare, 2011).

Almost half of **OHT**s reported holding two or more jobs concurrently. This suggests **OHT**s, particularly those in early to mid-career stages, are seeking opportunities to practice across various settings in order to fully utilise their broad scope of practice. By working in multiple roles, these practitioners can gain experience in different areas of oral health therapy, which may be necessary for developing a more comprehensive skill set (Teusner et al 2016; Chen et al 2022).

A small proportion of **OHT**s and **DH**s held four or more concurrent jobs, which may be indicative of younger professionals exploring different career paths or balancing clinical and non-clinical roles simultaneously. This pattern could reflect a desire to diversify their professional experiences, potentially engaging in roles such as education, research, or management alongside clinical practice. This trend is consistent with literature indicating that younger professionals often explore various career pathways before settling into long-term roles (Chen et al. 2022).

These findings underscore the importance of providing diverse career pathways and opportunities for career development within the oral health workforce. As younger practitioners seek to expand their scope and explore non-clinical avenues, ensuring the availability of varied roles and adequate professional development opportunities is crucial for workforce retention and satisfaction. Further research into the motivations behind holding multiple jobs and the long-term career progression of **OHP**s could provide valuable insights for workforce planning and policy development aimed at sustaining a robust and adaptable oral health workforce.

SOURCES

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CHAPTER 7.

PRINCIPAL PLACE OF EMPLOYMENT

NICOLE STORMON

Key Takeaways

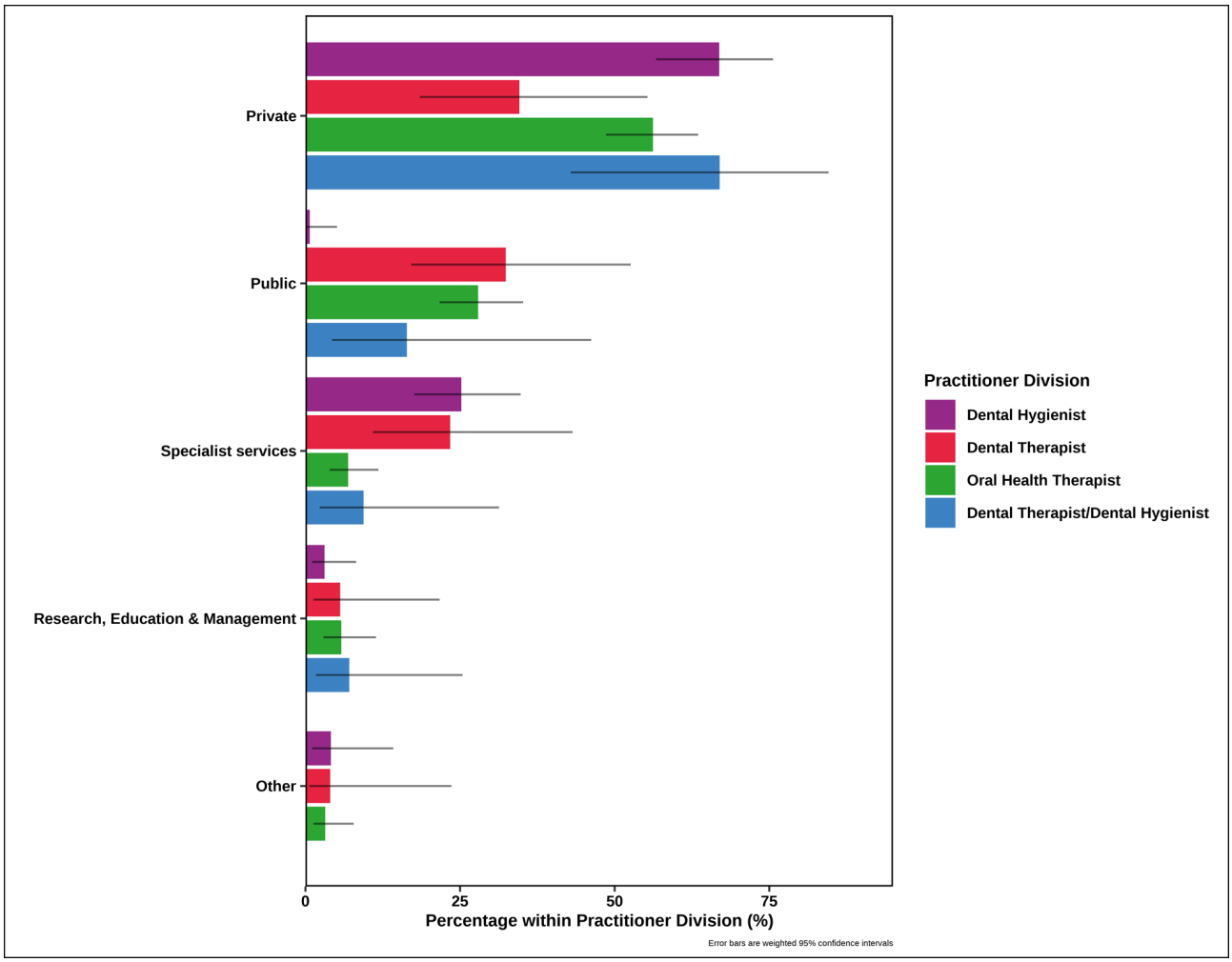
This chapter reports the oral health workforce's principal place of employment.

- 57% of **OHP**s principal place of employment was in the private sector.
- A third (33%) of public sector employment were aged 50 years and older.
- A higher proportion of males were employed in specialist services compared to other sectors.

EMPLOYMENT BY DIVISION

Figure 7.1. presents the proportions of the sector of principal place of employment by professional division. Over half (57.3%) of **OHP**s primary place of employment was in the private sector. Public sector was the primary sector of employment for 20.2%. Additionally, 14.0% and 5.2% in specialist services and Research, Education and Management respectively. The professions were largely similar, with the exception of **DH**s having only 1.0% in the public sector.

Figure 7.1. Weighted sector of principal place of employment by division.



PRINCIPAL PLACE OF EMPLOYMENT BY DEMOGRAPHICS

Table 7.1. reports the characteristics of the oral health workforce principal place of employment by demographic characteristics. The unweighted characteristics of survey participants principal place of employment are reported in Appendix Table 7.1.

The oral health workforce employed in the private sector were predominantly less than 30 years of age (27.7%) and 30 – 39 years of age (38.8%). A higher proportion of the workforce employed in the public and research, education and management sectors were in the older age brackets (50 years of age and older).

The proportion of females within the private and public sectors were similar (92.5% and 93.5% respectively). There were a higher proportion of males within the specialist service (16.1%) and research, education and management roles (11.0%).

Table 7.1. Weighted characteristics of the oral health workforce principal place of employment.

	Private	Public	Specialist services	Research, Education & Management	Other
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Age (years)					
Less than 30	27.7 (21.5, 34.7)	26.2 (16.8, 38.5)	12.2 (5.0, 26.9)	7.1 (1.0, 37.2)	21.5 (4.8, 59.9)
30 – 39	38.8 (32.2, 45.9)	29.8 (20.0, 41.9)	42.6 (28.8, 57.8)	31.7 (13.8, 57.2)	30.0 (8.8, 65.7)
40 – 49	18.0 (13.2, 24.0)	10.9 (5.7, 19.9)	21.9 (12.3, 35.8)	32.3 (13.9, 58.3)	22.5 (5.1, 60.9)
50 – 59	11.8 (8.1, 16.9)	18.6 (11.0, 29.8)	18.8 (9.6, 33.5)	9.4 (2.8, 27.0)	4.9 (0.6, 29.6)
60 or more	3.7 (1.5, 8.8)	14.5 (5.7, 32.4)	4.5 (1.0, 17.2)	19.6 (4.3, 56.6)	21.1 (3.1, 68.7)
Gender					
Male	7.5 (4.5, 12.2)	6.5 (2.4, 16.4)	16.1 (7.1, 32.4)	11.0 (2.6, 36.0)	14.7 (2.0, 58.8)
Female	92.5 (87.8, 95.5)	93.5 (83.6, 97.6)	83.9 (67.6, 92.9)	89.0 (64.0, 97.4)	85.3 (41.2, 98.0)
State of primary practice					
NSW	27.9 (21.9, 34.9)	22.0 (12.6, 35.4)	18.8 (9.5, 33.6)	49.5 (25.5, 73.7)	38.1 (11.8, 74.0)
VIC	22.3 (16.8, 28.9)	26.4 (16.2, 39.9)	15.5 (7.5, 29.4)	18.1 (5.7, 44.4)	14.8 (2.0, 59.0)
QLD	14.4 (10.7, 19.2)	24.1 (16.0, 34.6)	19.8 (11.5, 32.0)	18.2 (7.1, 39.5)	18.1 (5.0, 47.8)
SA	16.3 (12.2, 21.5)	8.5 (4.1, 16.5)	12.0 (5.7, 23.7)	14.2 (5.0, 34.6)	0.0 (0.0, 0.0)
WA	16.5 (11.2, 23.8)	8.6 (3.3, 20.7)	28.6 (16.0, 45.8)	‡ 0.0 (0.0, 0.0)	29.0 (7.4, 67.5)
TAS	1.2 (0.4, 3.1)	2.4 (0.6, 9.1)	1.3 (0.2, 9.0)	‡ 0.0 (0.0, 0.0)	‡ 0.0 (0.0, 0.0)
ACT	0.4 (0.1, 2.8)	6.6 (1.7, 22.1)	4.0 (1.3, 11.9)	‡ 0.0 (0.0, 0.0)	‡ 0.0 (0.0, 0.0)
NT	0.9 (0.2, 3.3)	1.6 (0.5, 5.0)	‡ 0.0 (0.0, 0.0)	‡ 0.0 (0.0, 0.0)	‡ 0.0 (0.0, 0.0)
Years practicing					
Less than 10	50.0 (42.9, 57.1)	43.9 (31.9, 56.7)	38.5 (25.1, 53.9)	13.2 (3.3, 40.8)	52.9 (20.8, 82.8)
10-19	31.6 (25.5, 38.5)	24.3 (15.6, 35.7)	27.7 (16.6, 42.4)	37.2 (17.7, 62.1)	11.2 (2.5, 38.8)
20-29	10.6 (7.0, 15.7)	5.9 (2.0, 15.7)	13.2 (6.1, 26.1)	21.5 (7.5, 48.2)	‡ 0.0 (0.0, 0.0)
30 or more	7.8 (4.5, 13.2)	26.0 (15.0, 41.1)	20.6 (10.7, 36.0)	28.0 (9.4, 59.5)	35.8 (9.9, 73.9)

Proportions were computed using weighted data.

‡ Estimates equated to zero based on survey responses and weighting. However, there may be low numbers of actual practitioners in this group.

INTERPRETATION

Employment patterns among **OHP**s across different sectors reflect broader trends within the dental workforce. The majority of **OHP**s were employed in the private sector, which aligns with existing literature indicating private practice being the predominant dental service provided within Australia. In contrast, the public sector employs a smaller, yet substantial proportion of the **OHP** workforce. This distribution of place of employment was similar to the previous survey conducted in 2020 of **OHP**s (Stormon et al. 2020).

The breakdown of principal place of employment by demographics highlights the private sector predominantly employs a younger workforce, while an older workforce is more commonly found in public and research and education roles. This distribution suggests younger professionals enter private practice, while established and experienced practitioners are within public or academic roles. This trend is consistent with literature indicating that public sector roles are often associated with job security, opportunities for professional development, and a structured work environment (Struber 2004). However, the lower employment numbers in the public sector may reflect challenges such as limited number of employment opportunities, lower earning potential compared to the private sector, and resource constraints which may affect job satisfaction (Hopcraft et al. 2010 and Silva et al. 2006). Research has highlighted that public sector positions may appeal more to experienced professionals seeking job stability or those committed to serving underserved populations, rather than to new graduates who might prioritise financial gain and rapid career progression (Hopcraft et al. 2010 and Silva et al. 2006).

A relatively large percentage of the total **OHP** workforce were employed in specialist services and roles within research, education, and management. There was a higher proportion of males in specialist and research roles. These positions are often composed of experienced practitioners who have focused their scope of practice to a specific oral health discipline, transitioning away from clinical practice, or seeking different forms of professional fulfilment. The relatively lower numbers in these sectors could be due to limited availability of such positions, the need for additional qualifications, or limited availability of opportunities.

As found in this study, the majority of **OHP**s are employed within clinical practice. Having opportunities for career development and diverse pathways is essential for career satisfaction and recognition (Chen et al. 2021). Further research and advocacy aimed at improving career progression opportunities, remuneration, and working conditions in the public sector could help attract and retain a more diverse and sustainable workforce. Continued research is needed to better understand the motivations and barriers influencing **OHP**s employment choices. This research could explore how different

factors, such as financial considerations, worklife balance, and professional development opportunities, impact decisions to work in various sectors of the dental workforce.

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CHAPTER 8.

SECONDARY PLACE OF EMPLOYMENT

NICOLE STORMON

Key Takeaways

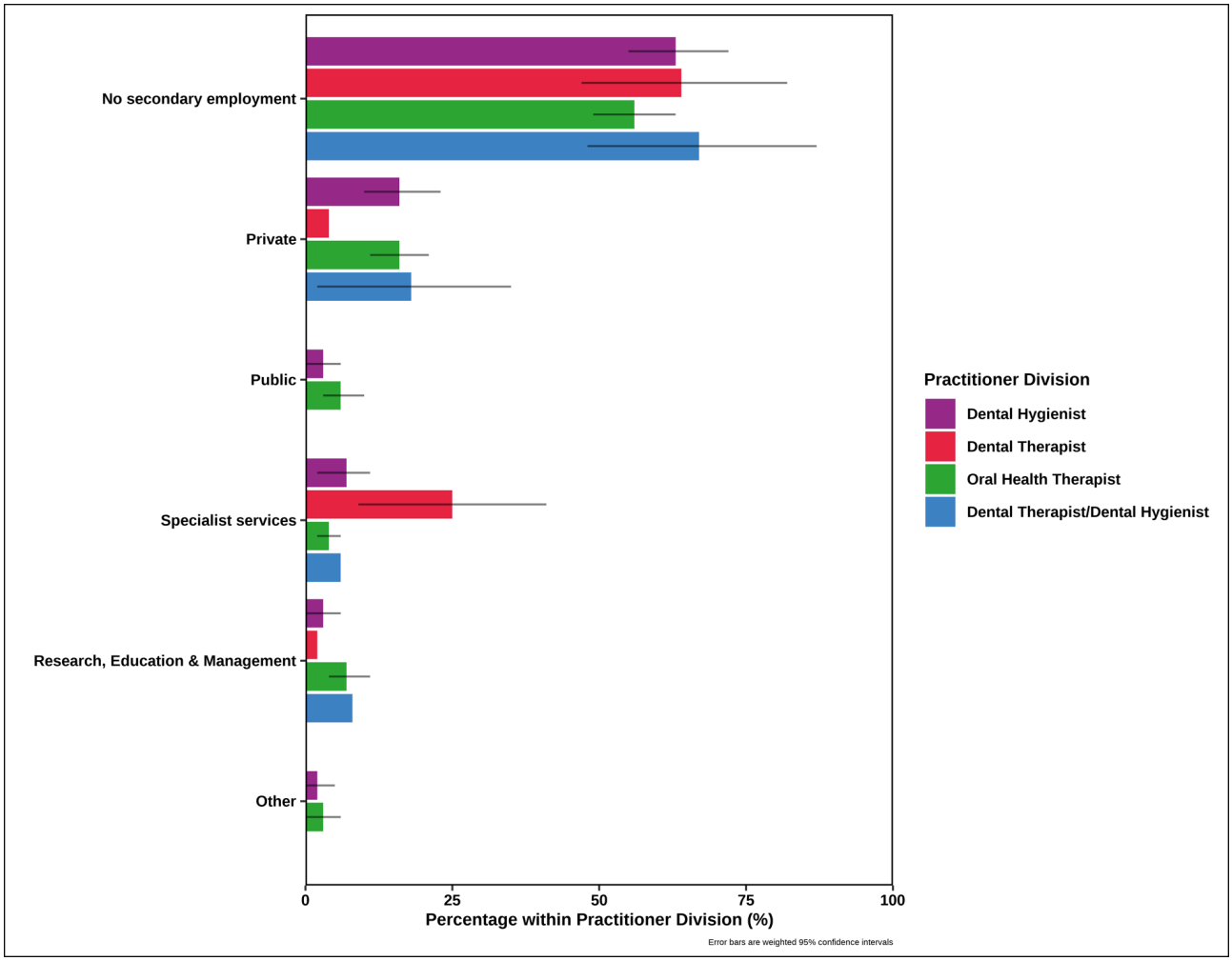
This chapter reports the characteristics of respondents' secondary place of employment.

- Two-thirds of **OHP**'s did not have secondary place of employment.
- There was a high proportion of younger practitioners working in public practice as secondary employment.

SECONDARY PLACE OF EMPLOYMENT

Figure 8.1. presents the weighted percentages of the sector of secondary place of employment by professional division. Two-thirds of **OHP**'s did not have secondary place of employment. Those that did report secondary employment were more often in the private and specialist service sector. Appendix Table 8.1 reports the unweighted characteristics of survey participants secondary place of employment.

Figure 8.1. Weighted sector of secondary place of employment by division



SECONDARY PLACE OF EMPLOYMENT BY DEMOGRAPHICS

Table 8.1. reports the characteristics of those with a secondary place of employment. For those with a secondary place of employment, there was a higher proportion of those younger than 39 years of age (59.4%) in private practice than older age groups. Public sector secondary employment had a high proportion of those less than 30 years of age (60.8%). Age followed a similar trend amongst private and public practice as a secondary place of employment.

Table 8.1. Weighted characteristics of the oral health workforce secondary place of employment.

	Private	Public	Specialist services	Research, Education & Management	Other
	% (95% **CI**)	% (95% **CI**)	% (95% **CI**)	% (95% **CI**)	% (95% **CI**)
Age (years)					
Less than 30	22.9 (13.5, 36.0)	60.8 (35.8, 81.2)	12.2 (4.4, 29.5)	26.4 (11.5, 49.9)	67.5 (32.9, 89.8)
30 – 39	36.5 (25.4, 49.2)	21.6 (7.7, 47.4)	34.6 (18.1, 55.8)	26.6 (12.1, 48.8)	7.9 (1.0, 42.1)
40 – 49	19.2 (11.3, 30.6)	9.5 (2.1, 34.1)	31.6 (16.1, 52.7)	27.8 (13.1, 49.8)	7.2 (0.9, 39.9)
50 – 59	19.1 (10.9, 31.3)	8.1 (1.9, 28.8)	12.9 (3.6, 36.5)	7.9 (2.5, 22.8)	17.5 (3.8, 53.4)
60 or more	2.4 (0.3, 15.2)	0.0 (0.0, 0.0)	8.8 (1.3, 42.1)	11.2 (3.3, 31.8)	0.0 (0.0, 0.0)
Gender					
Male	16.4 (8.7, 28.8)	14.1 (3.2, 45.1)	16.4 (5.2, 41.1)	4.8 (0.7, 27.6)	0.0 ‡ (0.0, 0.0)
Female	83.6 (71.2, 91.3)	85.9 (54.9, 96.8)	83.6 (58.9, 94.8)	95.2 (72.4, 99.3)	100.0 (100.0, 100.0)
State of primary practice					
NSW	23.5 (14.1, 36.4)	11.7 (2.8, 37.9)	15.5 (5.7, 35.9)	31.8 (15.3, 54.7)	15.5 (2.1, 61.1)
VIC	20.7 (11.9, 33.6)	40.1 (18.8, 65.9)	25.3 (11.5, 46.9)	22.0 (8.6, 45.9)	10.9 (1.4, 51.2)
QLD	14.5 (8.3, 24.1)	6.3 (1.5, 23.4)	23.9 (11.8, 42.3)	20.7 (9.6, 39.2)	17.3 (3.8, 52.4)
SA	23.6 (15.2, 34.7)	7.1 (1.6, 25.9)	18.0 (6.3, 41.7)	13.4 (5.3, 30.0)	13.8 (3.0, 45.3)
WA	14.2 (6.6, 28.0)	34.8 (14.3, 63.2)	14.9 (3.9, 43.1)	12.1 (3.0, 37.4)	42.5 (12.6, 79.2)
TAS	2.1 (0.5, 8.3)	0.0 ‡ (0.0, 0.0)	0.0 ‡ (0.0, 0.0)	0.0 ‡ (0.0, 0.0)	0.0 ‡ (0.0, 0.0)
ACT	1.4 (0.2, 9.2)	0.0 ‡ (0.0, 0.0)	2.3 (0.3, 15.2)	0.0 ‡ (0.0, 0.0)	0.0 ‡ (0.0, 0.0)
NT	0.0 ‡ (0.0, 0.0)	0.0 ‡ (0.0, 0.0)	0.0 ‡ (0.0, 0.0)	0.0 ‡ (0.0, 0.0)	0.0 ‡ (0.0, 0.0)
Years practicing					
Less than 10	48.6 (36.2, 61.1)	75.7 (50.5, 90.5)	38.8 (21.4, 59.6)	51.5 (31.2, 71.3)	81.8 (45.6, 96.0)
10-19	27.3 (17.8, 39.5)	13.2 (3.3, 40.7)	22.2 (9.8, 42.9)	27.0 (12.7, 48.6)	7.2 (0.9, 39.9)
20-29	13.8 (7.0, 25.3)	6.3 (1.5, 23.4)	6.9 (1.7, 24.3)	13.4 (4.7, 32.9)	10.9 (1.4, 51.2)
30 or more	10.3 (4.5, 22.1)	4.7 (0.6, 27.8)	32.1 (15.1, 55.7)	8.0 (1.8, 29.6)	0.0 ‡ (0.0, 0.0)

Proportions were computed using weighted data.

‡ Estimates equated to zero based on survey responses and weighting. However, there may be low numbers of actual practitioners in this group.

INTERPRETATION

The findings in this chapter are similar to previous workforce reports on **OHP**s (Stormon et al. 2020). This chapter highlights a trend where younger **OHP**s are more likely to engage in secondary employment, particularly in private and specialist sectors. This phenomenon could be influenced by several factors. Younger **OHP**s may be more inclined to seek additional employment to gain experience in the public sector where scope of practice may be more diversely utilised and provide professional networks and support. Literature on early career development supports this, indicating that younger professionals are generally more proactive in seeking supplementary roles to advance their careers (Nash et al. 2014).

Mid-career **OHP**s engaging in secondary employment within private and specialist practice may reflect a strategic approach to balancing family commitments as well as the availability of part-time roles within these sectors.

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CHAPTER 9.

TYPES OF EMPLOYMENT

JENNIFER GRAY AND WILLIAM CARLSON-JONES

Key Takeaways

This chapter reports the proportion of full time and part time oral health practitioners.

- All practitioner groups are predominantly in permanent employment.
- A higher proportion of **DT**s (20%) and dual qualified practitioners (13%) are self-employed or business owners.
- A higher proportion (67%) of younger oral health practitioners work full time.

TYPE OF EMPLOYMENT

Figure 9.1 reports the type of employment by division. **DH**s predominantly work permanent part time (42%) with similar percentages working in full time permanent positions (23%) and casual employment (22%). **DT**s predominantly work in permanent full time (28%) and permanent part time (28%); with 20% as self-employed or business-owners. Dual qualified **DT**/**DH** practitioners predominantly work part time permanent employment (62%). One fifth of **DH**s (22%), **OHT**s (21%) and dual qualified **DT**/**DH** (21%) work in a casual capacity. Only a small percentage of practitioners work as a locum with 2% of both the **DT**s and **DH**s and 4% of the dual-qualified **DT**/**DH**.

Appendix Table 9.1. Reports the unweighted characteristics of survey participants employed full and part time.

Figure 9.1. Weighted type of employment contract by division.

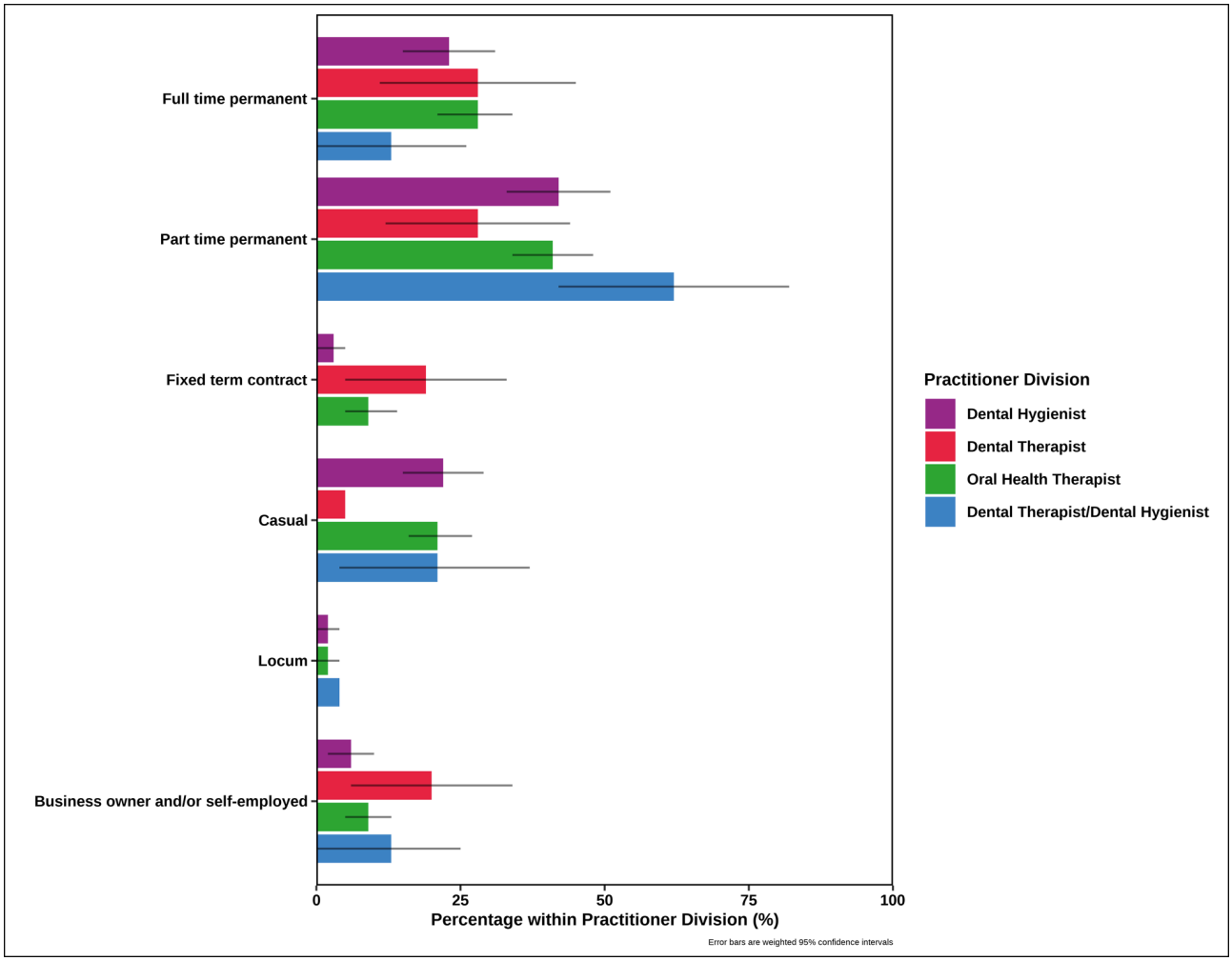

Table 9.1 reports the weighted characteristics of the oral health workforce employed full and part time. The unweighted characteristics of survey participants employed full and part-time are reported in Appendix Table 9.1.

The majority of the oral health workforce were employed part time. The younger (aged less than 30 years) and those aged over 60 years were more evenly distributed across part time and full time employment. In the other age groups there was at least twice the proportion of **OHT**s working part time.

Two-thirds of the male oral health workforce were in full time employment (67%), whereas approximately two-thirds of the females were employed part time.

There was variation between the states in the proportion of the oral health workforce that were employed full or part time. The **ACT** was the only state that reported a higher proportion working full time (83%). **QLD** had an even distribution between full time and part time employment. Approximately three quarters of the oral health workforce in both **WA** and **TAS** were employed in a part time capacity.

The **OHP**s with less than 10 years experience are more evenly distributed between full time and part time employment while two thirds of those with 10-29 years experience are employed part time.

All divisions of the oral health workforce had a higher proportion of practitioners working part time, although **DT**s were more equally employed across both part time and full time.

Table 9.1. Weighted characteristics of the oral health workforce participants employed full or part-time. Excludes all other employment types.

	Full time % (95% CI)	Part time % (95% CI)
Age (years)		
Less than 30	49.2 (36.3, 62.2)	50.8 (37.8, 63.7)
30 – 39	38.0 (28.6, 48.4)	62.0 (51.6, 71.4)
40 – 49	30.8 (19.6, 44.9)	69.2 (55.1, 80.4)
50 – 59	26.5 (15.5, 41.5)	73.5 (58.5, 84.5)
60+	44.9 (16.7, 76.8)	55.1 (23.2, 83.3)
Gender		
Male	67.3 (42.4, 85.1)	32.7 (14.9, 57.6)
Female	35.8 (29.6, 42.4)	64.2 (57.6, 70.4)
State of primary practice		
NSW	40.4 (28.3, 53.7)	59.6 (46.3, 71.7)
VIC	33.4 (22.5, 46.4)	66.6 (53.6, 77.5)
QLD	50.1 (36.9, 63.3)	49.9 (36.7, 63.1)
SA	43.0 (29.1, 58.2)	57.0 (41.8, 70.9)
WA	23.3 (11.4, 41.8)	76.7 (58.2, 88.6)
TAS	29.2 (7.2, 68.5)	70.8 (31.5, 92.8)
ACT	82.9 (45.1, 96.6)	17.1 (3.4, 54.9)
NT	35.1 (6.3, 81.3)	64.9 (18.7, 93.7)
Years practicing		
Less than 10	46.1 (37.0, 55.4)	53.9 (44.6, 63.0)
10-19	29.1 (20.4, 39.7)	70.9 (60.3, 79.6)
20-29	28.5 (12.9, 51.7)	71.5 (48.3, 87.1)
30 or more	37.9 (21.6, 57.5)	62.1 (42.5, 78.4)
Practitioner division		
DH	35.9 (25.6, 47.7)	64.1 (52.3, 74.4)
DT	49.7 (27.2, 72.3)	50.3 (27.7, 72.8)
OHT	40.5 (32.5, 49.0)	59.5 (51.0, 67.5)
DT/DH	17.6 (6.3, 40.7)	82.4 (59.3, 93.7)

‡ Practitioners with other combinations of oral health registrations division were grouped and should be interpreted with caution.

INTERPRETATION

The majority of **OHP**s were employed in a permanent capacity, either full or part time. There has been a comparative increase in the proportion of **DH** (8%) and **DT** (6%) that have full time permanent employment compared with the previous 2020 report resulting in a reduction in part-time employment (Stormon et al. 2020). Conversely, **OHT**s have a 5% reduction in the proportion of practitioners in full time permanent employment (Stormon et al. 2020). Across all categories of **OHP**s, 25-30% work in fixed term or casual employment. The higher proportion of part time work may reflect the fact that there are limited opportunities for full time employment. Opportunities may exist in areas with higher needs and lower proportion of practitioners.

TAS and **NT** have very low numbers of **OHP**s and the lowest **FTE** per population (AIHW 2024), while having poorer oral health (Do and Spencer 2016). Those people living in regional and remote areas have poorer oral health and reduced access to dental and oral health practitioners than metropolitan areas (AIHW 2024, Do et al. 2016, AIHW 2024). There may be an opportunity to create workforce incentives for these areas; to offer more full time employment to entice more OPHs to work in the disadvantaged areas. Research indicates that dentists are more likely to offer full time employment in areas of high oral health needs (Kempster et al. 2015).**OPH**

There has been an increase in the number of **OHP**s that are self-employed or business owners across all categories since the 2020 workforce report with a two-fold increase for **DH**, five-fold increase for **DT** and nine-fold increase for **OHT** (Stormon et al. 2020). This may be evidenced by the fact that these practitioner groups are more experienced (2024 Table 3.1.2; Stormon et al 2020) or practitioners who have previously expressed interest in expanding scope, independence and managerial responsibilities (Chen et al. 2021).

The **OHP** role and independent practice has developed and may have influenced the diversity and type of work undertaken by **OHP**s, increasing the use of the oral health workforce broadened the skill mix (Gallagher et al. 2024). More experienced **OHP**s may consider a transition from full time clinical practice to alternate contributions to the profession in areas such as teaching, mentoring, tutoring, management, healthcare or administration. There are opportunities for task sharing in areas of innovation and rehabilitation across the life course; innovative workforce models and integration with primary health care (Gallagher et al. 2024).

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CHAPTER 10.

USUAL HOURS WORKED

TAN NGUYEN

Key Takeaways

This chapter reports the demographic characteristics of the oral health workforce average weekly usual number of hours worked.

- **DT** and **DH**'s median weekly hours worked were 30 hours.
- **OHT**'s median weekly hours worked were 37 hours.
- The median number of weekly hours worked by the oral health workforce ranged from 32 to 35 hours according to the state of primary practice.
- There is general decreasing trend in the median number of weekly hours worked as the age and years of practice increased.

USUAL HOURS WORKED

The weighted median number of hours worked per week in each division is reported in Figure 10.1. The **DH** and **DT** professions were similar reporting an average 30 hours weekly, whereas **OHT**s reported 37 hours.

Table 10.1 reports the oral health workforce median weekly number of hours worked according to categories of age, gender, state of primary practice and number of years of practice. The unweighted characteristics of survey participants for the oral health workforce median weekly number of hours are reported in Appendix Table 10.1.

The highest median number of weekly hours worked for the oral health workforce was 38 hours, which was associated with age less than 30 years, male, and less than 10 years of practice. The second highest median number of weekly hours worked was 35 hours for the oral health workforce who were working primarily in **QLD**, **SA** and **WA**.

The lowest median number of weekly hours worked for the oral health workforce was 24 hours, which was associated with age older than 60 years. The second lowest median number of weekly hours worked was 27 hours for the oral health workforce who have practiced for more than 30 years.

The median number of weekly hours worked by the oral health workforce ranged from 32 to 35 hours according to the state of primary practice. There is general decreasing trend in the median number of weekly hours worked as the age (38 to 24 hours) and years of practice (38 to 27 hours) categories increased. Males reported a higher median number of weekly hours worked (38 hours) compared to females (33 hours).

Figure 10.1. Weighted median number of hours worked weekly by division

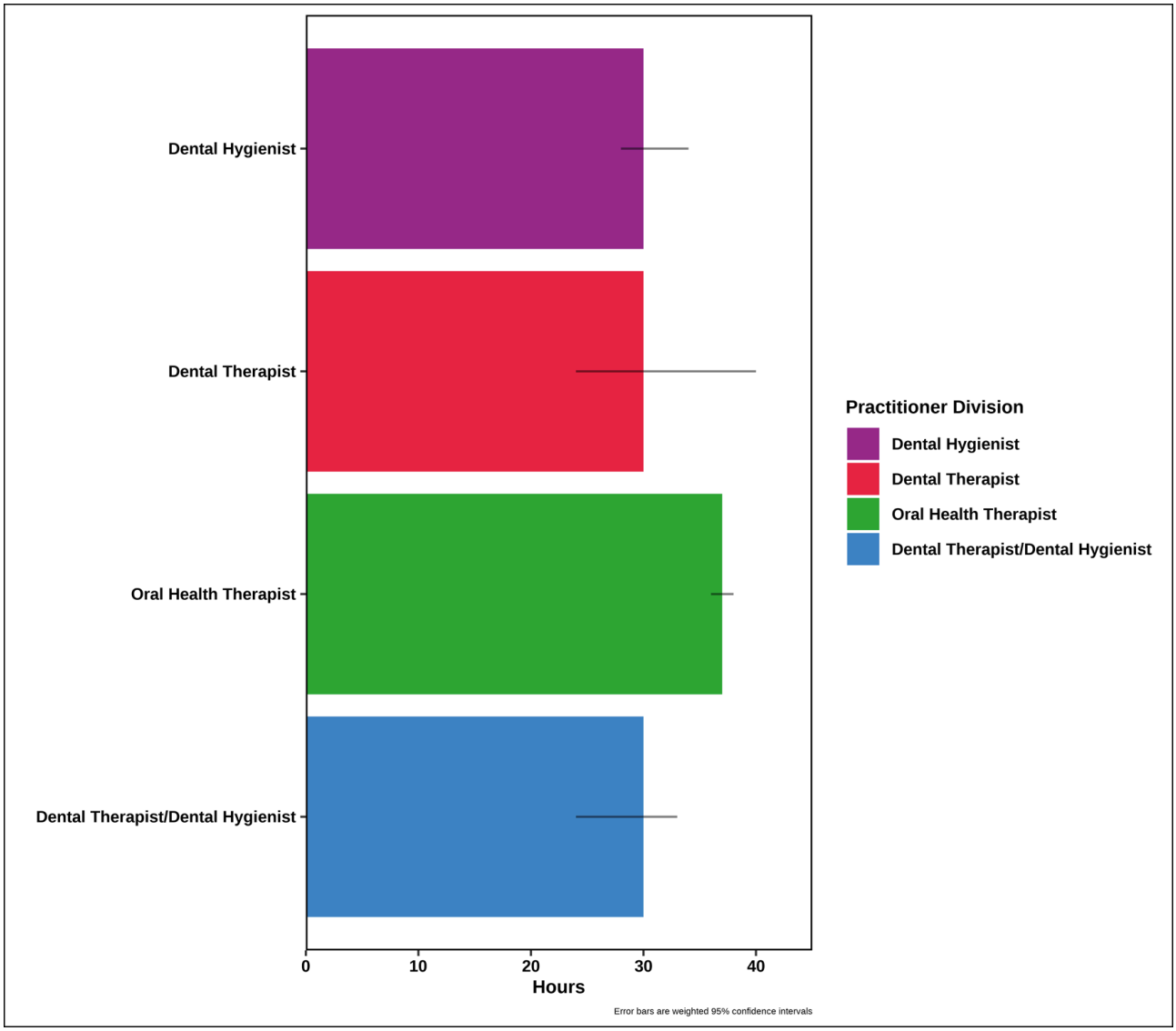

Table 10.1 Weighted oral health workforce average weekly usual number of hours worked by demographic characteristics.

	Median number of hours Median (95% CI)
Age (years)	
Less than 30	38 (38, 40)
30 – 39	32 (30, 36)
40 – 49	33 (32, 38)
50 – 59	30 (28, 32)
60 or more	24 (20, 36)
Gender	
Male	38 (36, 40)
Female	33 (32, 36)
State of primary practice	
NSW	34 (30, 38)
VIC	32 (30, 38)
QLD	35 (32, 38)
SA	35 (32, 38)
WA	35 (27, 40)
TAS/ACT/NT	32 (30, 38)
Years practicing	
Less than 10	38 (38, 40)
10-19	32 (32, 36)
20-29	30 (26.5, 34)
30 or more	27(24, 30)

INTERPRETATION

The trends in the median number of weekly hours worked by the oral health workforce were indicatve of a predominantly female and established workforce. For example, the median number of weekly hours worked dropped from 38 hours in the age less than 30 years category to 32 hours in the 30-39 years age group. This can be partly explained by the oral health workforce being largely a female dominated profession and consistent with growing national trends in the proportion of new mothers being age 30 and older (Australian Institute of Family Studies 2022).

The large difference for males working more weekly hours than females reflect the oral health workforce being a female dominant profession. The differences between genders may be influenced by females taking maternity leave or parental responsibilities. The consistent and steadily decreasing median number of weekly hours worked by the oral health workforce according to the number of years of practice coincides with the likely increase in carer responsibilities within the female dominant profession, as well as those reaching towards the retirement age of approximately 65 years (Australian Bureau of Statistics 2024).

SOURCES

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CHAPTER 11.

RENUMERATION

TAN NGUYEN

Key Takeaways

This chapter reports the characteristics of the **OHP** workforce on the median annual full-time income.

- The highest median annual full time income is $121,600 for **OHP**s working in research, education and management.
- The median annual full time income was lowest for **OHP**s whose principal place of practice was in the public sector at $93,000.
- There was a general trend for an increase in the median annual full time income for those that were older or with more years of practice experience.

ANNUAL RENUMERATION

Table 11.1 reports the median annual full time income according to categories of age, gender, state of primary practice, number of years of practice, and principal place of practice sector. The unweighted characteristics of survey participants for the median annual full time income are reported in Appendix Table 11.1.

The highest median annual full time income is $121,600 for the oral health workforce working in research, education and management. The second highest median annual full-time income of $115,000 reported by the oral health workforce were those with a practicing career length between 20-29 years, followed by the third highest median annual full time income being aged between 40-49 years at $112,500.

The lowest median annual full time income for the oral health workforce is $86,000 for those aged less than 30 years old. The second lowest median annual full-time income of $90,000 were the oral health workforce having less than 10 years of practice experience followed by those whose principal place of practice was in the public sector at $93,000.

There was a gradual increase in the median annual full-time income for the oral health workforce for those age less than 30 years at $86,000, which peaked at $112,500 for those aged 40-49 years old and reduced to $101,786 for those age older than 60 years.

The median annual full-time income for the oral health workforce ranged from $95,000 in **SA** to $108,571 in **TAS**, **ACT** and **NT** according to the state of primary practice.

Similar to the age category, the median annual full time income for the oral health workforce increased from $90,000 for less than 10 years of practice experience, which peaked at $115,000 for those have 20-20 years practice experience and reduced to $108,571 for those practicing for more than 30 years.

Figure 11.1. Median annual full-time income by profession

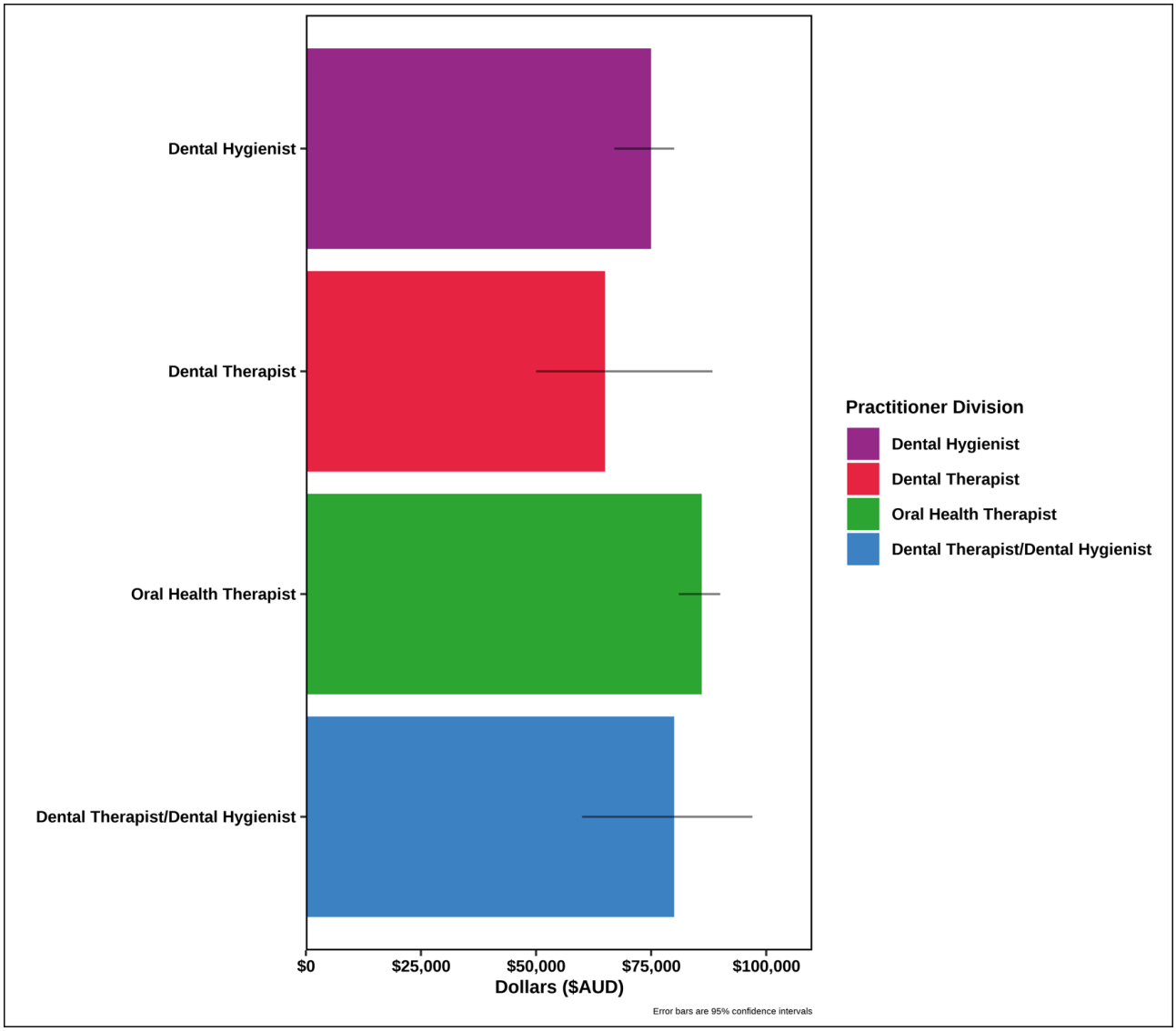

Table 11.1 Weighted oral health workforce average full time equivalent wage by demographics and practice sector characteristics.

	Median	(95% CI)
Age (years)		
Less than 30	86000	(80000, 94486)
30 – 39	101711	(95000, 106875)
40 – 49	112500	(106400, 119429)
50 – 59	105556	(100000, 112417)
60 or more	101786	(95000, 121600)
Gender		
Male	108571	(91200, 143784)
Female	100588	(97533, 104500)
State of primary practice		
NSW	100000	(95000, 108571)
VIC	100000	(93000,110000)
QLD	100000	(96000,106875)
SA	95000	(84444, 105119)
WA	105254	(91724,121037)
TAS/ACT/NT	108571	(98167,129057)
Years practicing		
Less than 10	90000	(87292, 96000)
10-19	106875	(104148,112500)
20-29	115000	(102483, 129057)
30 or more	108571	(95000, 112417)
Principal place of practice sector		
Private	103,941	(100000, 108571)
Public	93,000	(87024, 98500)
Specialist services	101,786	(91412, 118560)
Research, education and management	121,600	(109000, 145000)
Other	105,000	(80000, 420000)

INTERPRETATION

The peak in the median annual full time income for the oral health workforce follows a similar trend for the age and number of years practice experience categories. This may be partly explained by more recent graduates are being trained and upskilled with the adult scope for restorative practice when compared to the older age cohorts and with longer years of practice experience.

Despite a female dominated profession, there is limited evidence that a gender equity gap exists. Males reported a higher mean annual full time income of $108,571 when compared to females with $100,588. Although there were low number of males in the profession and survey, which limits the strength of the avaliable evidence.

The oral health workforce from the largest three states of primary practice, **NSW**, **VIC** and **QLD** reported the same median annual full time income of $100,000. The higher median annual full time income of $108,571 for **TAS**, **ACT** and **NT** could be partly explained by potentially higher rural and remote incentives for health professionals to service these geographic regions.

The median annual full time income for the oral health workforce was lowest for **OHP**s whose principal place of practice was in the public sector at $93,000. Interestingly, the median annual full time income for those working in specialist services at $101,786 was lower than private practice at $103,951. This may be due to a narrow scope of practice being utilised by the oral health workforce in specialist services or due to the lower qualification levels of **DH**'s who predominantly work in these areas. The highest median annual full time income was reported for those working in research, education and management, which would be consistent for the likelihood that these roles require a more experienced and higher qualified oral health workforce. Where the principal place of practice was reported in the 'Other' category, the median annual full time income of $105,000 had the largest 95% confidence interval. The upper 95% confidence interval of $420,000 for this category would suggest a small number of the oral health workforce are employed in very high paying positions, such as senior executive leadership.

CHAPTER 12.

EMPLOYMENT BENEFITS

TAN NGUYEN

Key Takeaways

This chapter reports the characteristics of employment benefits according to the **OHP** workforce registration division.

- Majority of all professions recieved superannuation benefits
- More than half the oral health workforce reported not receiving unpaid overtime.

EMPLOYMENT BENEFITS

Table 12.1 reports the employment benefits by **OHP** registration division according to categories of superannuation, unpaid overtime, and any other employment benefits. The unweighted characteristics of survey participants for **OHP**s reporting employment benefits according to the registration division are reported in Appendix Table 12.1.

Most of **OHP**s reported receiving superannuation benefits (92.0%). All dual registered **DT**/**DH** reported receiving superannuation benefits (100.0%), followed by **DH**s (97.7%) and **OHT**s (91.1%).

Just under half of **OHP**s reported receiving unpaid overtime (42.2%). The highest proportion were the 'Other combination' group (58.1%), followed by **DH**s (54.1%) and **DT**s (52.4%).

About half of the oral health workforce (51.4%) reported not having additional employment benefits. The highest proportion without additional employment benefits were in the 'Other combination', followed by **DH**s and dual qualified **DT**/**DH**s. The second most frequently reported additional employment benefits by **OHP**s was salary sacrifice (30.5%) and the third most frequently reported was personal expenses (18.6%).

Salary sacrifice was most frequently reported as an additional employment benefit by **DT**s (44.2%), dual qualified **DT**/**DH** (36.0%), 'Other combination' (34.7%) and **OHT**s (33.5%). Other additional employment benefits included additional paid leave for **DT**s (37.8%) and for 'Other combination' (34.7%, and personal expenses for 'Other combination' (34.7%).

Table 12.1. Weighted characteristics of the oral health workforce employment benefits at the principal place of employment by registration division.

	Practitioner Divisions					Total
	DH	DT	OHT	DT/DH	Other‡	
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Superannuation						
No	2.3 (0.7, 7.5)	18.6 (7.6, 39.0)	8.9 (5.5, 14.0)	0.0 (0.0, 0.0)	23.5 (5.2, 63.1)	8.0 (5.4, 11.7)
Yes	97.7 (92.5, 99.3)	81.4 (61.0, 92.4)	91.1 (86.0, 94.5)	100.0 (100.0, 100.0)	76.5 (36.9, 94.8)	92.0 (88.3, 94.6)
Unpaid overtime						
No	55.5 (45.6, 64.9)	47.6 (29.1, 66.8)	64.0 (56.6, 70.8)	45.9 (26.4, 66.8)	41.9 (13.4, 77.0)	57.8 (52.3, 63.2)
Yes	44.5 (35.1, 54.4)	52.4 (33.2, 70.9)	36.0 (29.2, 43.4)	54.1 (33.2, 73.6)	58.1 (23.0, 86.6)	42.2 (36.8, 47.7)
Additional employment benefits[1]						
None	61.8 (51.7, 71.0)	31.9 (16.8, 52.2)	49.0 (41.5, 56.6)	56.8 (35.0, 76.3)	65.3 (26.2, 90.9)	51.4 (45.8, 56.9)
Salary sacrifice	16.5 (10.1, 25.9)	44.2 (26.4, 63.7)	33.5 (26.8, 40.9)	36.0 (17.8, 59.3)	34.7 (9.1, 73.8)	30.5 (25.5, 36.0)
Personal expenses	17.0 (10.9, 25.5)	13.4 (5.3, 29.8)	20.8 (15.3, 27.6)	11.4 (3.6, 30.8)	34.7 (9.1, 73.8)	18.6 (14.7, 23.2)
Above mandatory superannuation	3.8 (1.3, 10.4)	21.2 (9.0, 42.4)	10.7 (7.1, 15.8)	4.2 (0.6, 24.9)	19.5 (2.8, 67.2)	9.9 (6.9, 13.8)
Additional paid leave	6.0 (2.8, 12.3)	37.8 (21.0, 58.0)	16.9 (12.2, 23.0)	21.1 (7.1, 48.4)	34.7 (9.1, 73.8)	17.3 (13.3, 22.2)
Other	10.9 (5.4, 20.8)	10.2 (2.9, 30.3)	6.9 (4.1, 11.3)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	7.6 (5.1, 11.3)

1 Participants could select more than one response.

‡ Practitioners with other combinations of oral health registrations division were grouped and should be interpreted with caution.

INTERPRETATION

This chapter reports the characteristics of employment benefits according to the oral health workforce registration division. For **OHP**s in the 'Other combination' with the lowest proportion to receive superannuation, it is likely these individuals have a different work arrangement other than employees as evident by the large 95% confidence interval. Interestingly, **DT**s had a lower percentage reporting receiving superannuation when compared to **DH**s. This is because superannuation benefits were first generally limited to public servants and white collar employees of large corporation, and **DT**s history could only work the public sector (Australian Prudential Regulation Authority, 2024; Nash et al. 2014).

Unpaid overtime was reported by a substantial percentage of survey participants. The clinical nature of many of the roles held by **OHP**s may require appointment preparation, medico-legal note taking and continuing professional development that is not captured in usual working hours, but an essential requirement of the roles. Individuals and professional associations play a role in advocating for essential tasks to be included in usual working hours to prevent unpaid work occuring.

DTs have the highest proportion reporting additional employment benefits. This is not surprising given that are more likely to work in the public sector (Teusner et al. 2016), which generally are remunerated on lower salary, but attracts additional employment benefits as part of their enterprise bargaining agreement when compared to private sector minimum awards. As such, **DT**s had the highest proportion reporting salary sacrifice benefits, above mandatory superannuation and additional paid leave. **DH**s had higher percentages of no additional employment benefits and may be explained by higher employment in the private sector and on casual employment types. The loading applied to casual employment aim to capture these leave and additional benefits. Similarly, **OHT**s or **DT**/**DH**s were typically working across private and public sectors which may explain their percentages of additional benefits.

Although the oral health workforce in the 'Other combination' category reported no additional employment benefits, it contrasts with higher proportions within the same registration division reporting salary sacrifice, personal expenses, additional paid leave and above superannuation. This appears consistent for this registration division who are likely most diversified in their roles and responsibilities that have a less clinical practice load, such as those working in research, education and management. In some cases, it is possible some of the oral health workforce may be a private practice owner or have senior executive positions, which generally allows for additional employments benefits.

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PART IV.

GEOGRAPHIC DISTRIBUTION OF WORKFORCE

CHAPTER 13.

DISTRIBUTION BY POPULATION

CHRISTOPHER SEXTON

Key Takeaways

This chapter reports the rate of **OHP**s relative to the Australian population. The key results include:

- There are approximately 20.7 **OHP**s per 100,000 residents nationwide.
- The rate of practitioners per 100,000 residents across the regions in Australia is relatively constant.
- Major Cities have higher rates of practitioner per population for **DH** and **OHT**s.

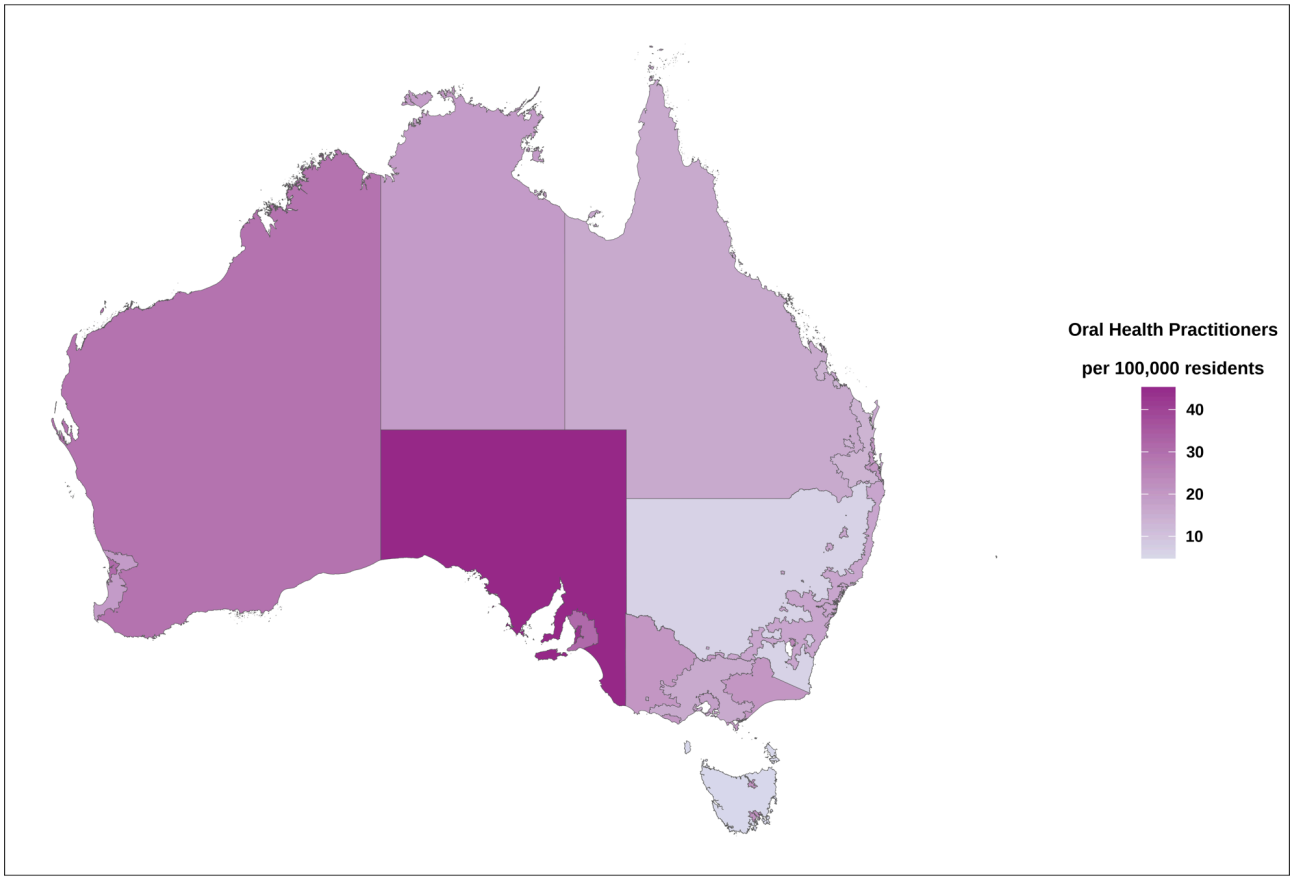
DISTRIBUTION BY POPULATION

There are 5052 total **DT**s, **DH**s, **OHT**s and other combinations of these categories in Australia. With an estimated population of 25.4 million Australian residents (Appendix Table 13.1), there are approximately 20.7 (95% CI 19.9, 21.6) **OHP**s per 100,000 residents nationwide.

While most states have approximately 20 **OHP**s per 100,000, **SA** and **WA** have higher rates of practitioner to population with 42.3 and 29.7 practitioners per 100,000 population respectively (Figure 13.1). The number of practitioners per population in **SA** is more than twice the Australian rate per 100,000. **TAS** and **NSW** have the lowest rates of practitioners per 100,000 for all States and Territories.

The rate of practitioners per 100,000 residents across the regions in Australia is relatively uniform. It shows that the number of practitioners per resident is not affected by the region that a resident is located within. However, this does not account for differences that may occur beyond Outer Regional areas. Similarly, it does not account for the difference in area and population distribution that would affect access to **OHP**s and services in making comparisons between Major Cities and regional or remote areas. Despite an approximately constant rate by population at the national level, within **NSW** and **TAS** there was evidence that the distribution varies by region. However, these results should be interpreted with caution due to the small numbers of responses within these areas.

Figure 13.1 Rate of practitioners per population by state and geographical regions (Major Cities, Inner Regional, Outer Regional and further remote.



Rates of practitioners per population by gender show that there are far more female oral health practitioners than male practitioners across all regions in Australia (Table 13.1). Appendix Table 13.1 reports the unweighted number of repondents and weighted number of practitioners by region and demographic characteristics.

There is a weak relationship within the youngest age group (less than 30) where there is a higher rate of practitioners in Major cities than in more regional areas. This trend does not continue for other age groups. Practitioners that are 50 – 59 and 60+ years old have a higher rate of practitioners per population that work in Outer Regional and further remote locations than Major Cities.

There are higher rates of practitioners per population for **DH**s and **OHT**s in Major Cities than Outer Regional and further remote. Comparatively, the rate of **DT**s per population in Outer Regional and further remote areas (5.0) is twice the rate in Major Cities (2.4).

Table 13.1 Number of practitioners per 100,000 Australian residents by region and practitioner characteristics.

	Practitioners per 100,000 Australian Residents (95% CI)			
	All regions	**Major City[#]**	**Inner Regional[#]**	**Outer Regional and further remote[#]**
Australia	20.7 (19.9, 21.6)	21.8 (20.2, 23.4)	17.0 (12.6, 21.3)	19.4 (12.3, 26.6)
State				
NSW	16.9 (13.7, 20.2)	17.4 (13.4, 21.4)	17.7 (9.0, 25.8)	6.8 (-6.0, 19.6)[+]
VIC	18.0 (14.3, 21.7)	18.4 (14.0, 22.9)	15.8 (6.7, 25.0)	20.1 (-2.5, 42.8)[+]
QLD	18.6 (15.3, 21.9)	20.6 (16.0, 25.3)	13.5 (6.4, 20.6)	16.1 (4.7, 27.5)
SA	42.3 (33.4, 51.2)	43.1 (33.1, 53.1)	31.7 (4.5, 58.8)	45.3 (11.0, 79.7)
WA	29.7 (20.6, 38.8)	30.9 (20.2, 41.6)	19.1 (-7.3, 46.1)[+]	29.0 (-0.2, 58.3)[+]
TAS	15.8 (5.0, 26.6)	–	22.1 (5.8, 38.5)	4.8 (-4.2, 13.8)[+-]
ACT	23.8 (1.5, 46.1)	23.8 (1.5, 46.1)	–	–
NT	19.4 (3.2, 35.6)	–	–	19.4 (3.3, 35.5)
Gender				
Female	19.1 (18.1, 20.1)	19.9 (18.2, 21.6)	16.8 (12.5, 21.1)	17.0 (10.0, 24.0)
Male	1.7 (1.1, 2.3)	1.9 (1.2, 2.7)	0.8 (-0.3, 1.9)[+]	1.2 (-1.1, 3.4)[+]
Age group (years)				
Less htan 30	5.2 (4.3, 6.2)	5.9 (4.6, 7.1)	3.8 (1.4, 6.1)	3.2 (0.2, 6.1)
30 – 39	7.4 (6.4, 8.4)	7.5 (6.3, 8.8)	7.3 (4.5, 10.1)	6.6 (2.7, 10.5)
40 – 49	3.7 (2.9, 4.5)	3.8 (2.9, 4.8)	4.3 (1.9, 6.6)	1.8 (-0.1, 3.6)[+]
50 – 59	2.8 (2.1, 3.5)	2.8 (1.9, 3.7)	2.2 (0.6, 3.8)	3.9 (0.9, 6.9)
60+	1.6 (0.8, 2.4)	1.8 (0.8, 2.9)	–	2.8 (-0.9, 6.5)[+]
Profession				
DH	5.7 (4.8, 6.5)	6.1 (5.0, 7.3)	5.3 (2.9, 7.6)	2.8 (0.6, 4.9)
DT	2.6 (1.7, 3.5)	2.4 (1.3, 3.5)	2.2 (0.3, 4.1)	5.0 (0.3, 9.8)
OHT	11.0 (9.9, 12.1)	11.5 (10.0, 13.0)	10.2 (6.7, 13.6)	8.4 (4.0, 12.7)
DT/DH	1.5 (0.9, 2.1)	1.8 (1.0, 2.6)	–	2.0 (0.0, 4.0)[+]

 # Multiple imputation of 56 from 414 respondents was used to increase responses due to missing postcode data.

+ Estimates based on responses less than 5.

– Region not avaliable in the state or there were no respondents of these demographics in these regions.

INTERPRETATION

Australia's oral health work force require a strong mix of Dentist, Dental Prosthetists and **OHP**s to deliver dental services to Australians across all geographic regions. In 2022, Dentists fulfilled the largest working dental profession and were available at a rate of 62.0 practitioners per 100,000 population across Australia (Australian Institute of Health and Welfare, 2008). However, their numbers exist primarily in Major cities (69.5 per 100,000) compared to Outer regional (39.3 per 100,000) and beyond (20.5 per 100,000). Comparatively, our data shows that the distribution for the rate of **OHP**s per population is approximately evenly distributed across the regions of Australia. This suggests that **OHP**s have a larger role in providing care to Australians in Outer Regional and further remote areas.

SA has the highest rate of **OHP**s per population possibly reflecting the consistency and size of graduating classes from The University of Adelaide, the currently longest running **OHT** program. The higher rates of **OHP**s per population for **WA** will need to be interpreted cautiously due to the small number of respondents in the Outer Regional and further remote area. **NT** has a relatively strong **OHP** rate per population, as the **NT** rate of dentists per population (36.0 per 100,000) is only 60% of the Australian average (Australian Institute of Health and Welfare, 2008). The oral health work force for **TAS** is a cause for concern. Our report shows **TAS** currently have the lowest rate of **OHP** per population (15.8 per 100,000) and external data shows they are the second lowest for the rate of dentist per population (46.6 per 100,000) (Australian Institute of Health and Welfare 2008). This shortfall across the dental workforce needs to be addressed.

Within the oral health work force divisions, **OHT**s, **DH**s and **DT**/**DH**s have a mild increase in rates per population of working in Major Cities compared to Outer Regional and further remote areas. Comparatively, the trend is reversed for **DT**, with the highest rate per population for this profession occurring in Outer Regional and further remote areas.

While the current distribution of the oral health workforce is balanced across the regions of Australia, it is unclear whether this will continue into the future. Dental Therapists are generally older than other **OHP**s, and they are more likely to work in Outer Regional and further remote areas in a public dental role (Australian Government 2020). There are more **OHT**s than **DT**s per population in Outer Regional and further remote areas but overall, **OHT**s are more likely to work in private rather than public dental clinics (Australian Government 2020). As **DT**s reach retirement age in the coming years, Australians seeking public dental care in Outer Regional and further remote will require the possible void left by **DT**s to be filled by other oral health professions.

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CHAPTER 14.

DISTRIBUTION OF EXPECTED RETIREMENT

CHRISTOPHER SEXTON

Key Takeaways

This chapter reports the expected retirement for **OHP**s across regions of Australia. They key takeaways include:

- Half of current working practitioners expect to retire in 19 years.
- 25% are expecting to retire in the next 9 years.
- The lowest median number of years until retirement was 2.2 years for **DT**s in Outer Regional and further remote.

DISTRIBUTION OF EXPECTED RETIREMENT

The Oral Health Workforce Survey responses show that half of current working practitioners expect to retire in 19 years, and 25 percent are expecting to retire in the next 9 years. While the median years until retirement is similar for Major City (19.5 years) and Inner Regional (20.1 years); the median years until retirement in Outer Regional and further remote is 12.1 years (Figure 14.1).

There were minor differences in the predicted years until retirement for female and male practitioners (Table 14.1). The estimates for predicted years until retirement males in Inner Regional and Outer Regional and further remote are limited by the number of respondents in these regions.

The expected number of years until retirement by age groups was modified by the region that the practitioner was located in. This is shown in the younger age groups (less than 30 and 30 – 39) having less number of years until retirement in Outer Regional and further remote regions compared to Major City and Inner Regional. In comparison, the practitioners in the 40 – 49 age group in Outer Regional and further remote have a higher median predicted years until retirement than practitioners of the same age group in Major Cities and Inner Regional.

The predicted number of years until retirement differed across the professions with the highest median being 24.8 years for **OHT**s and the lowest median being 6 years for **DT**s. When stratified by region and practitioner profession, the lowest median number of years until retirement was 2.2 years for **DT**s in Outer Regional and further remote.

The Outer Regional and further remote region may have concerns in coming decade replacing the practitioners that are expecting to retire during that time. **DT**s are overrepresented in this region, and they have a lower number of predicted years until retirement. These practitioners will need to be replaced by younger practitioners to continue the care provided to the population in this region. However, the younger age groups are currently overrepresented in the Major City and Inner Regional areas.

Figure 14.1. Median number of years until retirement for oral health practitioners by state and geographical regions (Major Cities, Inner Regional, Outer Regional and further remote.

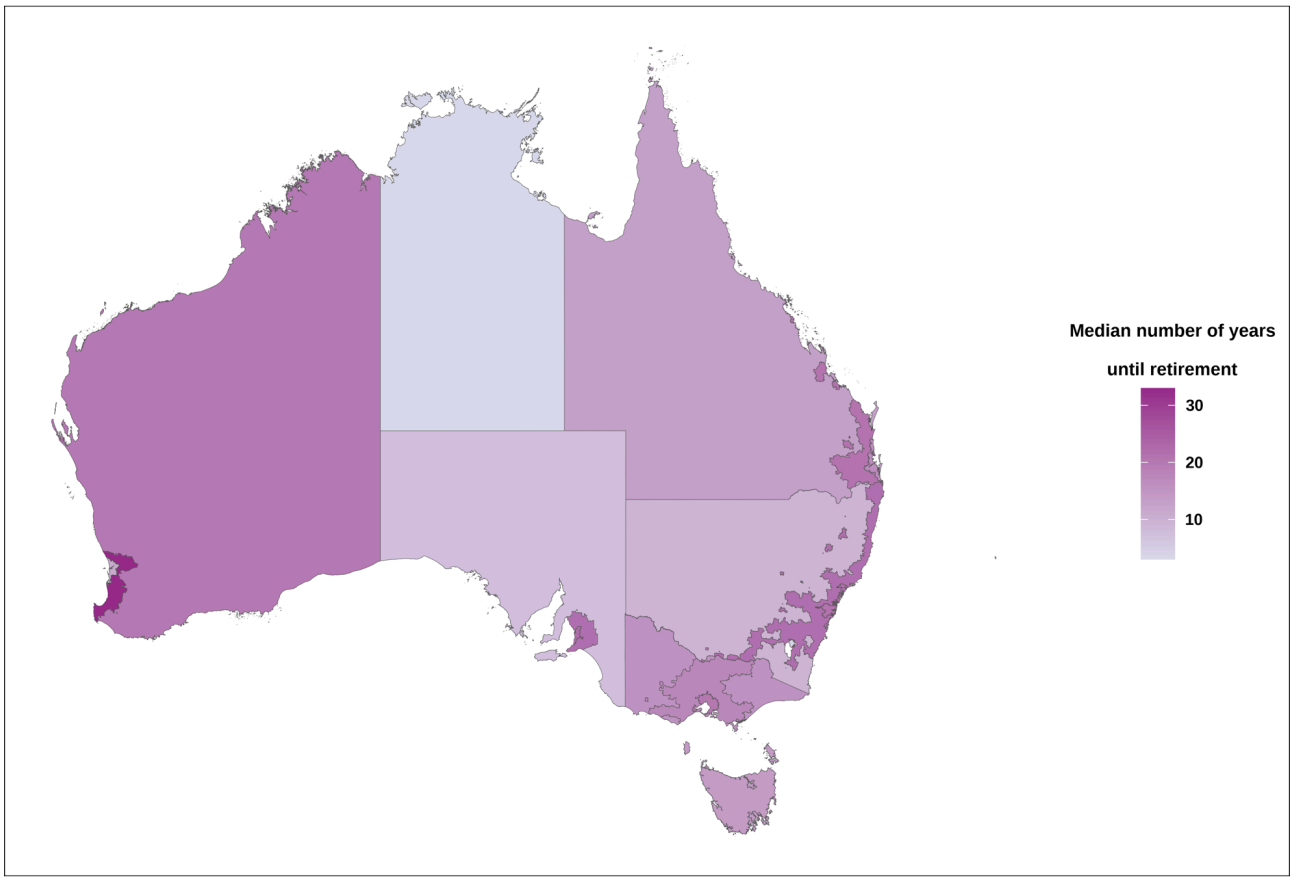

Table 14.1 Predicted number of years until practitioner retirement by characteristics and region in Australia.

	Median predicted years until retirement (25P, 75P)			
	All regions	**Major City[#]**	**Inner Regional[#]**	**Outer Regional and further remote[#]**
Australia	19.1 (9.0, 27.0)	19.5 (9.0, 28.0)	20.1 (9.8, 25.6)	12.1 (3.3, 22.6)
State				
NSW	21.1 (10.9, 29.1)	21.3 (10.6, 30.2)	21.6 (16.6, 26.2)	9.8 (9.7, 10.0)[+]
VIC	20.0 (10.0, 27.3)	20.4 (11.0, 28.2)	17.2 (6.2, 23.2)	15.4 (9.8, 27.9)[+]
QLD	16.8 (9.0, 24.1)	16.4 (9.5, 24.6)	20.9 (10.9, 34.3)	13.2 (7.7, 23.2)
SA	20.3 (8.8, 28.0)	21.9 (10.1, 29.0)	21.6 (9.0, 24.6)	7.4 (2.0, 18.4)
WA	13.0 (6.0, 25.0)	11.6 (5.8, 24.9)	33.0 (8.0, 38.2)	20.1 (2.6, 22.4)[+]
TAS	14.0 (8.8, 23.0)	–	14 (8.0, 22.9)	14.0 (14.0, 14.5)[+]
ACT	3.0 (3.0, 10.0)	3.0 (3.0, 10.0)	–	–
NT	3.0 (1.0, 10.0)	–	–	3.0 (1.0, 10.0)
Gender				
Female	19.0 (9.0, 27.0)	19.4 (9.0, 27.6)	20.1 (10.3, 25.8)	13.1 (5.2, 23.0)
Male	19.6 (7.6, 31.0)	21.2 (9.7, 33.7)	9.7 (8.0, 27.9)[+]	2.0 (2.0, 2.0)[+]
Age group (years)				
Less than 30	28.0 (23.0, 33.2)	28.7 (23.3, 33.5)	28.8 (25.4, 34.9)	23.3 (8.7, 26.4)
30 – 39	21.8 (14.5, 28.0)	22.2 (15.5, 29.0)	21.9 (16.8, 24.9)	17.8 (12.6, 25.0)
40 – 49	14.7 (9.2, 20.1)	14.3 (9.9, 19.9)	13.4 (6.2, 20.1)	20 (17.3, 21.1)
50 – 59	8.6 (6.0, 10.0)	8.6 (6.0, 10.0)	7.4 (5.8, 11.7)	8.8 (5.7, 10.0)
60+	3.0 (2.0, 4.0)	3.0 (2.0, 4.0)	–	2.0 (1.6, 4.3)
Profession				
DH	14.0 (8.0, 23.0)	13.8 (7.8, 23.0)	14.5 (6.5, 22.7)	15.1 (10.4, 20.2)
DT	6.0 (3.0, 10.0)	6.4 (3.0, 10.8)	7.3 (6.0, 13.6)	2.2 (2.0, 5.4)
OHT	24.8 (17.7, 31.0)	25.2 (18.0, 31)	23.0 (18.4, 29.0)	22 (13.2, 25.5)
DT/DH	10.0 (6.0, 17.0)	11.9 (6.0, 17.0)	–	9.0 (1.4, 10.3)

 # Multiple imputation of 56 from 414 respondents was used to increase responses due to missing postcode data.

+ Estimates based on responses less than 5.

Statistics are reported as median (25th Percentile, 75th Percentile) number of years.

INTERPRETATION

The median years until practitioner retirement nationwide and in Major Cities and Inner Regional areas allows the **OHP** workforce to be sustainable in the coming years. With half of the **OHP** workforce expecting to work for an additional 19 years allows more time for the education and preparation for coming generations of **OHP**s in these areas. While workforce challenges in Outer Regional and remote areas of more populous states are not yet critical, proactive planning is essential to ensure long-term sustainability.

The median years until practitioner retirement is troubling for Outer Regional and further remote locations for the **ACT** and **NT**. Government and other stakeholders need to adjust their recruitment strategies to entice younger and alternative registered division of **OHP** to these areas immediately. Both Territories face an impending crisis, with half of their practitioners expecting to retire within three years. Immediate and innovative recruitment strategies, alongside strong government leadership, are crucial to avert workforce shortages. With half of the current working **OHP**s expecting to retire in the coming three years, it will take strong leadership at the Federal Government level to re-vitalise the oral health workforce in these regions.

The median number of years until retirement for the professions is indicative of the age distribution of the registered dental practitioners. Approximately 75% of the current **DT** work force are expecting to retire in the coming ten years. This reflects the age distribution for this profession being older than other **OHP** divisions (Australian Government, 2020). The median time until retirement for **OHT**s is much longer as they are generally younger than other **OHP** divisions (Australian Government, 2020). This suggests that the **OHT** can play a key role in mitigating workforce gaps caused by the retirement of **DT**s. However, this will require coordination and planning to effectively entice these professionals into needed regions. An increase in permanent FTE positions could be a recruitment option to entice younger staff to these areas. The loss of experience and possible mentorship from **DT**s to younger **OHT**s should be planned for when discussing this transition.

Addressing issues in the oral health workforce will require sustained time and planning. A national oral health strategy could coordinate between education institutions, the professional associations and State governments to design region specific initiatives that encourage more equitable distribution of **OHP**s. Regional recruitment and placements for education may lead to increased numbers of younger professionals willing to relocate from Major Cities to regional or remote areas. Another possibility is the establishment of additional **OHP**s education in regional universities. Professional associations can contribute through support networks and mentoring opportunities for regional and remote practitioners.

There are other possibilities to improve access to oral health services of Outer Regional

and further remote populations that are caused by the maldistribution of the **OHP**s. Telehealth dentistry, complemented by clinical support from non-dental health practitioners, could bridge access gaps in underserved regions. Implementation would require investments in infrastructure, training, and regulatory frameworks to ensure quality care. This could help the **ACT** and **NT** alleviate the oral health workforce pressures that they are currently experiencing and was a recommendation from the recent Senate Select Committee enquiry into Provision of and Access to Dental Services in Australia (Senate Committee, 2023). This model of oral health access could improve access to oral health services Australia-wide.

Overall, States and Territories of Australia require proactive workforce planning to provide sustainable and equitable access to **OHP**s into the future. The **ACT** and the **NT** require immediate action to address their current workforce retirement plans. The states and territories of Australia should review the enablers and barriers to the younger **OHP** for working in Outer Regional and further remote areas and consider targeted recruitment or enticements to boost the number of younger practitioners in these regions.

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PART V.

CAREER INTENTIONS

CHAPTER 15.

RETENTION OF THE WORKFORCE

WILLIAM CARLSON-JONES AND MELANIE ALEY

Key Takeaways

This chapter reports the characteristics of the oral health workforce career intentions in the next six months by registration division.

- Majority of the oral health workforce (56.7%) have no intention of changing careers in the next six months, with the highest stability seen in the **DT/DH** group (84.0%).
- Among those considering a change (43.3%), a significant proportion are seeking more work (13.3%) or a promotion (15.0%).

CAREER INTENTIONS

Table 15.1 reports the characteristics of the oral health workforce career intentions in the next six months by registration division. The unweighted characteristics of survey participants' career intentions in the next six months by registration division are reported in Appendix Table 15.1. Regarding career change intentions, the majority of the oral health workforce (56.7%) indicated they had no intention of changing their career in the next six months, with the highest stability reported in the **DT**/**DH** group (84.0%). **DH**s (60.6%), **OHT**s (53.1%) and **DT**s (51.5%) also showed relatively high rates of career stability. Conversely, 43.3% of the total sample indicated intentions to change careers with the highest proportion of **DT**s (48.5%) seeking a career change in the next six months.

Among those considering change, seeking more work was the most commonly selected reason (13.3%), with **OHT**s being the most likely to pursue additional work (16.8%). The second most common intention was seeking promotion (15.0%), again with **OHT**s showing the highest level of interest (18.8%). Reducing work hours was cited by 7.9% of practitioners overall, and this was most prevalent among **DT**s (11.3%).

A significant proportion of respondents expressed interest in a career change within the field of dentistry (13.2) with **OHT**s (14.7%) and **DT**s (14.1%) leading this category. A smaller group intended a career change away from dentistry (7.1%), again with **DT**s reporting the highest rate (7.7%).

Other intentions included suspending work (5.3%), with higher rates among **OHT**s (7.1%). Retirement and further study intentions were minimal across all divisions, with rates close to zero across the workforce.

Table 15.1. Weighted characteristics of the oral health workforce career intentions in the next six months by registration division.

	Practitioner divisions					
	DH	DT	OHT	DT/DH	Other‡	Total
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Career change intention						
No change	60.6 (51.4, 69.0)	51.5 (33.9, 68.8)	53.1 (46.1, 60.0)	84.0 (63.7, 94.0)	35.0 (10.4, 71.5)	56.7 (51.4, 61.7)
Change	39.4 (31.0, 48.6)	48.5 (31.2, 66.1)	46.9 (40.0, 53.9)	16.0 (6.0, 36.3)	65.0 (28.5, 89.6)	43.3 (38.3, 48.6)
Type of change intention[1]						
Seeking more work	12.7 (7.8, 20.2)	5.0 (0.7, 28.2)	16.8 (12.1, 22.8)	8.3 (2.1, 28.1)	0.0 (0.0, 0.0)	13.3 (10.1, 17.2)
Reducing work hours	9.8 (5.6, 16.9)	11.3 (3.7, 29.8)	5.0 (2.8, 8.6)	9.1 (2.2, 30.3)	31.3 (8.0, 70.7)	7.9 (5.5, 11.3)
Seeking promotion	9.2 (5.3, 15.6)	17.2 (7.4, 34.9)	18.8 (13.9, 24.9)	4.2 (0.6, 24.8)	19.5 (2.8, 67.2)	15.0 (11.7, 19.2)
Career change in dentistry	11.9 (7.4, 18.7)	14.1 (5.5, 31.6)	14.7 (10.3, 20.5)	0.0 (0.0, 0.0)	31.3 (8.0, 70.7)	13.2 (10.1, 17.2)
Career change away from dentistry	6.8 (3.5, 12.7)	7.7 (1.8, 27.3)	6.2 (3.6, 10.3)	6.2 (1.5, 22.9)	33.6 (8.7, 73.0)	7.1 (4.9, 10.4)
Suspending work	4.8 (2.2, 10.1)	2.6 (0.4, 16.6)	7.1 (4.0, 12.2)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	5.3 (3.3, 8.2)
Retiring	0.5 (0.1, 3.4)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.1 (0.0, 0.9)
Further study	0.5 (0.1, 3.4)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.1 (0.0, 0.9)

1 Participants that indicated a career change intention could select more than one response.

‡ Practitioners with other combinations of oral health registrations division were grouped and should be interpreted with caution.

⁑ Estimates equated to zero based on survey responses and weighting. However, there may be low numbers of actual practitioners in this group.

INTERPRETATION

The career intentions of the oral health workforce over the next six months reveal key trends across different registration divisions, highlighting varying levels of stability and aspirations for change. Overall, more than half of the workforce reported no intention to change careers, with the highest stability found among dual-qualified **DT**/**DH**s. This stability may reflect that many **DT**/**DH**s are well-established in their current career paths, likely due to years of experience and career satisfaction (Teusner et al. 2016).

Early-career **OHT**s demonstrated greater career dynamism, with a large proportion seeking more work (16.8%) as they aim to establish their careers. **OHT**s also reported high rates of seeking promotions, which suggests they may be looking to progress from early-career to mid-career roles, a natural trajectory as they gain experience and strive for greater responsibility. Additionally, OHTs may be unsatified with their current positions or have not been able to secure permanent or full time positions being the newest of the **OHP**s. Many **OHT**s expressed an interest in changing careers within the field of oral health. This may indicate that they are exploring non-clinical roles, such as in research, education, or management, in pursuit of greater flexibility and work-life balance. The versatility of the oral health therapy skillset makes them well-positioned to pivot within the profession (Chen et al. 2021).

DTs exhibited distinct career intentions. A notable proportion expressed a desire to reduce their work hours, which could reflect plans to transition towards retirement (Bordia et al. 2020) as many **DT**s are more established and likely approaching the later stages of their careers. Additionally, **DT**s had the highest rate (7.7%) of seeking a career change away from dentistry, potentially signifying a broader interest in new opportunities or lifestyle changes, and the adoption of new identities as they near retirement (Bordia et al. 2020). This aligns with their longer tenure in the workforce, prompting consideration of non-dental career paths in response to the physical burden associated with dental work (Hayes et al. 2012), lack of generativity opportunities (ie mentoring others) or to prevent stagnation (Newtown, Chauhan & Pates, 2020). With a lack of **DT** training and the introduction of dual-qualified **DT**/**DH**s and **OHT**s, it may be that there are decreasing job opportunities for **DT**s, prompting the search for opportunities outside of the dental profession. **DT**'s are primarily employed in the public sector, and there is evidence that the public dentistry is experiencing a retention crisis (Evans et al. 2023).

OHTs also had a notable proportion indicating plans to suspend work, which could be linked to personal reasons, such as taking a leave of absence for family or caregiving responsibilities, or recreational travel. As a predominantly younger, female profession, they may be navigating life transitions that require temporary breaks from their careers. Parenting responsibilities have been shown to result in a temporary reduction of working hours (Perry-Jenkins & Gerstel, 2020). This reduction in work hours can have

an impact on wellbeing; having control and flexibility over working hours can have a positive impact on professionals and their families (Perry-Jenkins & Gerstel, 2020).

These findings underline the diverse career intentions within the oral health workforce. While many experienced **OHP**s, particularly **DT**/**DH**s, are content in their current roles, early-career **OHT**s are more actively seeking new opportunities for growth and flexibility. Meanwhile, older **DT**s may be preparing for reduced workloads or exploring new career directions as they consider retirement. Understanding these intentions is crucial for developing workforce strategies that support career progression, work-life balance, and long-term retention, ensuring a sustainable and adaptable oral health workforce.

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CHAPTER 16.

RETIREMENT AND EXITING THE WORKFORCE

WILLIAM CARLSON-JONES AND MELANIE ALEY

Key Takeaways

This chapter reports the retirement intentions of the **OHP** workforce by registration division and the intended retirement age by demographic characteristics.

- On average, the oral health workforce intends to retire at around age 57.
- The majority of **OHP**s across all divisions plan to retire between the ages of 60 and 69.
- Younger **OHP**s intend to retire earlier than older **OHP**s.
- Female **OHP**s also intend to retire later than male **OHP**s.
- **OHP**s in **NSW** and **QLD** intend to retire later than **OHP**s located in other states and territories.

RETIREMENT INTENTIONS

Table 16.1 reports the retirement intentions of the oral health workforce by registration division. The unweighted retirement intentions of the oral health workforce by registration division are reported in Appendix Table 16.1. The retirement intentions of the oral health workforce demonstrate distinct patterns across registration divisions, reflecting varying career stages and professional trajectories. On average, the oral health workforce intends to retire at approximately age 57, with differences by division. **DH**s reported a slightly later average retirement age of 59 years, while **DT**s and **OHT**s indicated plans to retire slightly earlier, at an average of 58 years and 56 years, respectively. Dual-qualified **DT**/**DH**s expected to retire at the latest age of 61 years.

In terms of age groups, the majority of practitioners across all divisions plan to retire between the ages of 60 and 69, with 57.4% of **DH**s, 57.9% of **DT**s, 48% of **OHT**s, and 72% of dual-qualified **DT**/**DH**s indicating this as their retirement range. A small proportion (1.7%) of **DH**s and (8.8%) of **DT**/**DH**s anticipate retiring between 70 and 79 years of age, suggesting that a few **OHP**s continue working well into their later years. A negligible percentage of the workforce, around 1% across all divisions, expects to retire after the age of 80. Notably, **OHT**s showed the highest proportion of individuals planning to retire before age 60, with 32.5% indicating intentions to retire between 50 and 59 years of age.

Table 16.2 reports the weighted average intended retirement age by demographic characteristics. Appendix Table 16.2. reports the unweighted average intended retirement age by demographic characteristics. The weighted average retirement age of the oral health workforce reveals notable variations based on demographic characteristics such as age, gender, and state of primary practice. Across the entire workforce, the average intended retirement age increases with the age of the respondent, reflecting a trend toward extending working years as individuals approach typical retirement age. Those under 30 years old have a median intended retirement age of 52 years, while those aged 30–39 intend to retire at a median age of 55 years. The intended retirement age increases further among **OHP**s aged 40–49, reaching a median of 60 years, while those aged 50–59 plan to retire at 62 years. **OHP**s aged 60 or older indicated the latest retirement intentions, with a median age of 66 years.

Gender also plays a role in retirement intentions. Female **OHP**s intend to retire later, at a median age of 58 years, compared to their male counterparts, who reported a median retirement age of 53 years. Retirement intentions also differ by state. **OHP**s in **NSW** and **QLD** report a median retirement age of 59 years, similar to those in **SA**, with a median retirement age of 57 years. **VIC** and **WA OHP**s, however, intend to retire slightly earlier, at a median of 56 years of age. The **NT** had the lowest reported retirement age, with **OHP**s planning to retire by a median age of 54 years, while **OHP**s in the **ACT** reported a wider range of retirement intentions, with a median of 57 years of age.

Table 16.1. Weighted retirement intentions of the oral health workforce by registration division.

	Division					
	DH	**DT**	**OHT**	**DT/DH**	**Other combination‡**	**Total**
	% (95% CI)	**% (95% CI)**	**% (95% CI)**	**% (95% CI)**	**% (95% CI)**	**% (95% CI)**
Average[1] age intends to retire (years)	59 (57, 61)	58 (53, 63)	56 (55, 58)	61 (58, 63)	42 (28, 56)	57 (56, 58)
Age intends to retire (years)						
Under 30	1.9 (0.5, 7.2)	8.1 (3.0, 20.3)	1.1 (0.4, 3.6)	0.0 (0.0, 0.0)	45.4 (15.2, 79.4)	3.1 (1.8, 5.5)
30 – 39	2.6 (0.9, 7.2)	19.7 (8.7, 38.6)	3.0 (1.4, 6.1)	0.0 (0.0, 0.0)	19.5 (2.8, 67.2)	5.1 (3.1, 8.3)
40 – 49	8.1 (4.2, 15.1)	2.6 (0.4, 16.6)	11.3 (7.5, 16.8)	3.9 (0.5, 23.3)	⁑ 0.0 (0.0, 0.0)	8.6 (6.1, 12.0)
50 – 59	27.2 (19.9, 36.1)	5.1 (1.2, 19.1)	32.5 (26.3, 39.4)	15.3 (5.7, 35.3)	12.1 (1.6, 53.9)	26.1 (21.9, 30.7)
60 – 69	57.4 (48.2, 66.1)	57.9 (39.9, 74.1)	48.0 (41.1, 55.0)	72.0 (50.9, 86.5)	22.9 (5.1, 62.2)	52.8 (47.6, 58.0)
70 – 79	1.7 (0.5, 5.2)	6.6 (1.4, 26.3)	2.8 (1.2, 6.4)	8.8 (2.2, 29.3)	⁑ 0.0 (0.0, 0.0)	3.3 (1.8, 6.0)
80 or more	1.1 (0.2, 7.4)	0.0 (0.0, 0.0)	1.2 (0.4, 3.9)	0.0 (0.0, 0.0)	⁑ 0.0 (0.0, 0.0)	0.9 (0.3, 2.5)

1 Weighted median (Q1, Q3)

‡ Practitioners with other combinations of oral health registrations division were grouped and should be interpreted with caution.

⁑ Estimates equated to zero based on survey responses and weighting. However, there may be low numbers of actual practitioners in this group.

Table 16.2 Weighted average intended retirement age by demographic characteristics.

	Median (Q1, Q3)
Age (years)	
Less than 30	52 (50, 55)
30 – 39	55 (54, 57)
40 – 49	60 (58, 62)
50 – 59	62 (62, 63)
60 or more	66 (65, 67)
Gender	
Male	53 (47, 59)
Female	58 (57, 59)
State of primary practice	
NSW	59 (57, 61)
VIC	56 (54, 58)
QLD	59 (57, 61)
SA	57 (54, 59)
WA	56 (52, 60)
TAS	56 (50, 63)
ACT	57 (47, 66)
NT	54 (45, 64)

INTERPRETATION

The retirement intentions of the oral health workforce indicate several notable trends that reflect both demographic factors and regional differences. On average, **OHP**s plan to retire at around age 57, suggesting a relatively low average retirement age. However, this figure also prompts questions about sustainability and workforce turnover in the coming years for certain divisions.

A significant majority of **OHP**s across all divisions anticipate retiring between the ages of 60 and 69 years. This suggests that their intentions to retire are similar to the average Australian worker, and those working specifically in the healthcare industry (Australian Bureau of Statistics, 2024). Interestingly, younger **OHP**s express intentions to retire earlier than their older counterparts, which could reflect a lack of future planning for retirement, changing values regarding work-life balance or career fulfillment.

Gender differences also emerge, with female **OHP**s intending to retire later than male **OHP**s. This may indicate a broader trend of women in the workforce seeking to extend their careers, possibly driven by factors such as increased job satisfaction or the need for continued financial stability through the gender pay gap (Lala & Thompson, 2020). Understanding these dynamics is essential for addressing potential gender disparities in career longevity and progression.

Geographically, **OHP**s in **NSW** and **QLD** plan to retire later than those in other states and territories. This trend may be influenced by the higher cost of living in these areas (Deloitte, 2022), compelling **OHP**s to remain in the workforce longer to secure financial stability. Other areas for future reserach to explore include other factors that may influence career satisfaction and later retirement including avalibility of permanent jobs, workplace conditions and other renumeration or salary benefits. The regional disparities highlight the importance of contextual factors such as geographical location in shaping retirement intentions.

These findings highlight the complex interplay of age, gender, and geography in shaping the retirement intentions of **OHP**s. With many **OHP**s planning to retire in the next decade, understanding these patterns is crucial for workforce planning and development strategies aimed at ensuring a robust and sustainable oral health system.

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PART VI.

APPENDIX

CHAPTER 17.

APPENDIX: SAMPLE CHARACTERISTICS

Appendix Table 6.1. Unweighted characteristics of the oral health workforce survey by registration division.

	Divisions					Total
	DH	DT	OHT	DT/DH	Other combination	
	N = 132	N = 34	N = 223	N = 25	N = 7	N = 421
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Age						
Less than 30	11 (8.3)	2 (5.9)	85 (38.1)	0 (0.0)	3 (42.9)	101 (24.0)
30 – 39	45 (34.1)	6 (17.6)	94 (42.2)	9 (36.0)	1 (14.3)	155 (36.8)
40 – 49	40 (30.3)	7 (20.6)	29 (13.0)	4 (16.0)	2 (28.6)	82 (19.5)
50 – 59	30 (22.7)	12 (35.3)	13 (5.8)	9 (36.0)	1 (14.3)	65 (15.4)
60 or more	6 (4.5)	7 (20.6)	2 (0.9)	3 (12.0)	0 (0.0)	18 (4.3)
Gender						
Male	4 (3.0)	7 (20.6)	18 (8.1)	2 (8.0)	2 (28.6)	33 (7.8)
Female	128 (97.0)	27 (79.4)	205 (91.9)	23 (92.0)	5 (71.4)	388 (92.2)
State of primary practice						
NSW	30 (22.7)	7 (20.6)	49 (22.0)	3 (12.0)	2 (28.6)	91 (21.6)
VIC	21 (15.9)	1 (2.9)	47 (21.1)	9 (36.0)	1 (14.3)	79 (18.8)
QLD	18 (13.6)	9 (26.5)	70 (31.4)	6 (24.0)	1 (14.3)	104 (24.7)
SA	37 (28.0)	7 (20.6)	36 (16.1)	2 (8.0)	0 (0.0)	82 (19.5)
WA	16 (12.1)	7 (20.6)	12 (5.4)	4 (16.0)	3 (42.9)	42 (10.0)
TAS	5 (3.8)	2 (5.9)	2 (0.9)	0 (0.0)	0 (0.0)	9 (2.1)
ACT	3 (2.3)	1 (2.9)	3 (1.3)	0 (0.0)	0 (0.0)	7 (1.7)
NT	2 (1.5)	0 (0.0)	4 (1.8)	1 (4.0)	0 (0.0)	7 (1.7)
Years practicing						
Less than 10	41 (31.1)	8 (23.5)	148 (66.4)	1 (4.0)	3 (42.9)	201 (47.7)
10-19	49 (37.1)	3 (8.8)	60 (26.9)	9 (36.0)	2 (28.6)	123 (29.2)
20-29	25 (18.9)	6 (17.6)	5 (2.2)	6 (24.0)	2 (28.6)	44 (10.5)
30 or more	17 (12.9)	17 (50.0)	10 (4.5)	9 (36.0)	0 (0.0)	53 (12.6)

CHAPTER 18.

APPENDIX: EMPLOYMENT CHARACTERISTICS

Appendix Table 7.1. Unweighted characteristics of survey participants principal place of employment.

	Private	Public	Specialist services	Research, Education & Management	Other
	N = 216	N = 72	N = 50	N = 18	N = 9
	n (%)	n (%)	n (%)	n (%)	n (%)
Age (years)					
Less than 30	53 (24.5)	19 (26.4)	5 (10.0)	1 (5.6)	2 (22.2)
30 – 39	86 (39.8)	24 (33.3)	21 (42.0)	6 (33.3)	3 (33.3)
40 – 49	41 (19.0)	10 (13.9)	12 (24.0)	6 (33.3)	2 (22.2)
50 – 59	30 (13.9)	15 (20.8)	10 (20.0)	3 (16.7)	1 (11.1)
60 or more	6 (2.8)	4 (5.6)	2 (4.0)	2 (11.1)	1 (11.1)
Gender					
Male	16 (7.4)	4 (5.6)	6 (12.0)	2 (11.1)	1 (11.1)
Female	200 (92.6)	68 (94.4)	44 (88.0)	16 (88.9)	8 (88.9)
State of primary practice					
NSW	52 (24.1)	12 (16.7)	8 (16.0)	6 (33.3)	3 (33.3)
VIC	41 (19.0)	15 (20.8)	7 (14.0)	3 (16.7)	1 (11.1)
QLD	43 (19.9)	25 (34.7)	14 (28.0)	5 (27.8)	3 (33.3)
SA	50 (23.1)	8 (11.1)	8 (16.0)	4 (22.2)	0 (0.0)
WA	22 (10.2)	4 (5.6)	9 (18.0)	0 (0.0)	2 (22.2)
TAS	4 (1.9)	2 (2.8)	1 (2.0)	0 (0.0)	0 (0.0)
ACT	1 (0.5)	3 (4.2)	3 (6.0)	0 (0.0)	0 (0.0)
NT	3 (1.4)	3 (4.2)	0 (0.0)	0 (0.0)	0 (0.0)
Years practicing					
Less than 10	108 (50.0)	34 (47.2)	19 (38.0)	2 (11.1)	5 (55.6)
10-19	68 (31.5)	20 (27.8)	14 (28.0)	8 (44.4)	2 (22.2)
20-29	25 (11.6)	4 (5.6)	7 (14.0)	4 (22.2)	0 (0.0)
30 or more	15 (6.9)	14 (19.4)	10 (20.0)	4 (22.2)	2 (22.2)
Practitioner division					
DH	77 (35.6)	1 (1.4)	28 (56.0)	4 (22.2)	3 (33.3)
DT	9 (4.2)	10 (13.9)	7 (14.0)	2 (11.1)	1 (11.1)
OHT	108 (50.0)	56 (77.8)	13 (26.0)	10 (55.6)	5 (55.6)
DT/DH	17 (7.9)	3 (4.2)	2 (4.0)	2 (11.1)	0 (0.0)
Other combination	5 (2.3)	2 (2.8)	0 (0.0)	0 (0.0)	0 (0.0)

Appendix Table 8.1. Unweighted characteristics of survey participants secondary place of employment.

	Private	Public	Specialist services	Research, Education & Management	Other
	N = 67	N = 16	N = 27	N = 24	N = 8
	n (%)	n (%)	n (%)	n (%)	n (%)
Age (years)					
Less than 30	13 (19.4)	8 (50.0)	4 (14.8)	5 (20.8)	4 (50.0)
30 – 39	26 (38.8)	4 (25.0)	10 (37.0)	6 (25.0)	1 (12.5)
40 – 49	14 (20.9)	2 (12.5)	9 (33.3)	7 (29.2)	1 (12.5)
50 – 59	13 (19.4)	2 (12.5)	3 (11.1)	3 (12.5)	2 (25.0)
60 or more	1 (1.5)	0 (0.0)	1 (3.7)	3 (12.5)	0 (0.0)
Gender					
Male	10 (14.9)	2 (12.5)	3 (11.1)	1 (4.2)	0 (0.0)
Female	57 (85.1)	14 (87.5)	24 (88.9)	23 (95.8)	8 (100.0)
State of primary practice					
NSW	13 (19.4)	2 (12.5)	4 (14.8)	6 (25.0)	1 (12.5)
VIC	11 (16.4)	6 (37.5)	6 (22.2)	4 (16.7)	1 (12.5)
QLD	13 (19.4)	2 (12.5)	9 (33.3)	7 (29.2)	2 (25.0)
SA	21 (31.3)	2 (12.5)	5 (18.5)	5 (20.8)	2 (25.0)
WA	6 (9.0)	4 (25.0)	2 (7.4)	2 (8.3)	2 (25.0)
TAS	2 (3.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
ACT	1 (1.5)	0 (0.0)	1 (3.7)	0 (0.0)	0 (0.0)
NT	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Years practicing					
Less than 10	32 (47.8)	11 (68.8)	12 (44.4)	11 (45.8)	6 (75.0)
10-19	20 (29.9)	2 (12.5)	6 (22.2)	7 (29.2)	1 (12.5)
20-29	9 (13.4)	2 (12.5)	2 (7.4)	4 (16.7)	1 (12.5)
30 or more	6 (9.0)	1 (6.3)	7 (25.9)	2 (8.3)	0 (0.0)
Practitioner division					
DH	23 (34.3)	4 (25.0)	8 (29.6)	5 (20.8)	2 (25.0)
DT	2 (3.0)	0 (0.0)	7 (25.9)	1 (4.2)	0 (0.0)
OHT	36 (53.7)	10 (62.5)	10 (37.0)	16 (66.7)	6 (75.0)
DT/DH	4 (6.0)	0 (0.0)	2 (7.4)	2 (8.3)	0 (0.0)
Other combination	2 (3.0)	2 (12.5)	0 (0.0)	0 (0.0)	0 (0.0)

Appendix Table 9.1. Unweighted characteristics of survey participants employed full and part-time.

	Full time[1]	Part time[1]
	N = 106	N = 164
	n (%)	n (%)
Age (years)		
Less than 30	32 (30.2)	29 (17.7)
30 – 39	39 (36.8)	61 (37.2)
40 – 49	17 (16.0)	40 (24.4)
50 – 59	14 (13.2)	28 (17.1)
60 or more	4 (3.8)	6 (3.7)
Gender		
Male	13 (12.3)	6 (3.7)
Female	93 (87.7)	158 (96.3)
State of primary practice		
NSW	24 (22.6)	39 (23.8)
VIC	21 (19.8)	38 (23.2)
QLD	27 (25.5)	27 (16.5)
SA	18 (17.0)	27 (16.5)
WA	7 (6.6)	24 (14.6)
TAS	2 (1.9)	5 (3.0)
ACT	5 (4.7)	2 (1.2)
NT	2 (1.9)	2 (1.2)
Years practicing		
Less than 10	58 (54.7)	65 (39.6)
10-19	27 (25.5)	63 (38.4)
20-29	6 (5.7)	16 (9.8)
30 or more	15 (14.2)	20 (12.2)
Practitioner division		
DH	28 (26.4)	52 (31.7)
DT	9 (8.5)	10 (6.1)
OHT	65 (61.3)	87 (53.0)
DT/DH	4 (3.8)	14 (8.5)
Other combination	0 (0.0)	1 (0.6)

1 No column not displayed.

‡ Practitioners with other combinations of oral health registrations division were grouped and should be interpreted with caution.

Appendix Table 10.1 Unweighted oral health workforce average usual number of hours worked weekly by demographic characteristics.

	Median (IQR)
Age (years)	
Less than 30	38 (36, 40)
30 – 39	33 (24, 38)
40 – 49	33 (24, 39)
50 – 59	32 (26, 37)
60 or more	24 (21, 33)
Gender	
Male	38 (34, 40)
Female	33 (24, 38)
State of primary practice	
NSW	35 (24, 38)
VIC	32 (24, 38)
QLD	34 (25, 38)
SA	36 (29, 38)
WA	33 (24, 40)
TAS	35 (30, 37)
ACT	35 (31, 37)
NT	36 (27, 37)
Years practicing	
Less than 10	38 (28, 40)
10-19	32 (27, 38)
20-29	30 (23, 34)
30 or more	29 (23, 36)

Appendix Table 11.1 Unweighted oral health workforce average full time equivalent wage by demographics and practice sector.

	Median	(IQR)
Age (years)		
Less than 30	86,000	(72,980, 102,000)
30 – 39	100,933	(85,000, 120,000)
40 – 49	107,833	(95,000, 123,625)
50 – 59	103,693	(80,207, 124,697)
60 or more	101,786	(85,500, 116,735)
Gender		
Male	110,786	(90,300, 142,355)
Female	100,000	(80,000, 118,750)
State of primary practice		
NSW	100,000	(83,000, 120,000)
VIC	100,588	(87,000, 124,250)
QLD	100,000	(76,500, 114,891)
SA	94,743	(76,253, 116,420)
WA	108,571	(82,552, 126,000)
TAS	100,933	(100,380, 107,486)
ACT	118,750	(108,049, 134,528)
NT	87,892	(82,184, 95,924)
Years practicing		
Less than 10	90,000	(75,509, 108,967)
10-19	106,875	(91,724, 126,000)
20-29	112,882	(80,620, 138,386)
30 or more	103,444	(84,000, 118,750)
Principal place of practice sector		
Private	103,074	(83,000, 121,481)
Public	91,200	(77,507, 103,837)
Specialist services	101,560	(84,296, 126,500)
Research, education and management	120,800	(88,250, 140,200)
Other	105,000	(99,155, 122,941)

Appendix Table 12.1. Unweighted characteristics of survey participants employment benefits at the principal place of employment by division.

	Divisions					
	DH	**DT**	**OHT**	**DT/DH**	**Other combination‡**	**Total**
	N = 132	N = 34	N = 223	N = 25	N = 7	N = 421
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**
Superannuation						
No	3 (2.7)	5 (17.2)	18 (9.4)	0 (0.0)	2 (28.6)	28 (7.7)
Yes	110 (97.3)	24 (82.8)	174 (90.6)	24 (100.0)	5 (71.4)	337 (92.3)
Unpaid overtime						
No	63 (55.8)	13 (44.8)	120 (62.5)	12 (50.0)	3 (42.9)	211 (57.8)
Yes	50 (44.2)	16 (55.2)	72 (37.5)	12 (50.0)	4 (57.1)	154 (42.2)
No additional benefits[1]						
None	71 (62.8)	9 (31.0)	90 (46.9)	14 (58.3)	5 (71.4)	189 (51.8)
Salary sacrifice	18 (15.9)	13 (44.8)	67 (34.9)	8 (33.3)	2 (28.6)	108 (29.6)
Personal expenses	20 (17.7)	5 (17.2)	40 (20.8)	3 (12.5)	2 (28.6)	70 (19.2)
Above mandatory superannuation	4 (3.5)	6 (20.7)	24 (12.5)	1 (4.2)	1 (14.3)	36 (9.9)
Additional paid leave	7 (6.2)	11 (37.9)	37 (19.3)	4 (16.7)	2 (28.6)	61 (16.7)
Other	9 (8.0)	3 (10.3)	15 (7.8)	0 (0.0)	0 (0.0)	27 (7.4)

1 Participants could select more than one response.

‡ Practitioners with other combinations of oral health registrations division were grouped and should be interpreted with caution.

CHAPTER 19.

APPENDIX: GEOGRAPHIC DISTRIBUTION OF WORKFORCE

Appendix Table 13.1. Population of state and territories of Australia by regions.

	Population of region from Australian Bureau of Statistics 2021			
	All regions	**Major City**	**Inner Regional**	**Outer Regional & further**
Australia	**25,422,756**[+]	**18,475,360**	**4,486,275**	**2,408,188**
State				
NSW	8,096,541	6,209,514	1,531,525	355,502
VIC	6,496,322	5,036,708	1,208,330	251,284
QLD	5,142,085	3,368,599	990,718	782,768
SA	1,775,803	1,351,788	171,123	252,892
WA	2,650,367	2,092,686	230,956	326,725
TAS	556,121	–	353,725	353,623
ACT	416,065	416,065	–	–
NT	232,046	–	–	232,046

[+] Total includes populations classified as Migratory – Offshore – Shipping, and No usual address. Figures are obtained form the Australian Bureau of Statistics. The Australia population total are inclusive of populations classified as Migratory – Offshore – Shipping, and No usual address.

Appendix Table 13.2. Number of practitioners by region and characteristic.

Number of respondents and *weighted number of practitioners (95% CI)*				
	All regions	**Major City[#]**	**Inner Regional[#]**	**Outer Regional & further [#]**
Australia	**414** ***5052***	**312** ***4036 (3740, 4332)***	**64** ***762 (567, 957)***	**38.3** ***468 (295, 641)***
State				
NSW	89 *1372 (951, 1793)*	69.5 *1082 (834, 1329)*	18.2 *266 (137, 394)*	1.3 *24 (-21, 70)*
VIC	78 *1170 (777, 1564)*	61.7 *929 (703, 1154)*	13.2 *191 (90, 302)*	3.2 *51 (-6, 108)*
QLD	103 *954 (639, 1270)*	75.5 *695 (538, 851)*	15.4 *134 (6, 204)*	12.2 *126 (37, 215)*
SA	82 *751 (482, 1020)*	65.9 *582 (447, 717)*	6.9 *54 (8, 101)*	9.3 *115 (28, 201)*
WA	39 *786 (406, 1167)*	32.2 *647 (423, 870)*	2.6 *45 (-17, 106)*	4.3 *95 (-1, 190)*
TAS	9 *88 (12, 164)*	–	7.9 *78 (20, 136)*	1.2 *10 (-9, 28)*
ACT	7 *99 (6, 192)*	7.0 *99 (6, 192)*	–	–
NT	7 *45 (8, 82)*	–	–	7.0 *45 (8, 82)*
Gender				
Female	383 *4843 (4597, 5089)*	284.2 *3680 (3369, 3991)*	61.6 *753 (559, 947)*	37.3 *410 (242, 578)*
Male	31 *423 (271, 575)*	27.6 *359 (222, 495)*	2.4 *36 (-12, 84)*	1.1 *28 (-27, 83)*
Age group				
Less than 30	98 *1328 (1081, 1575)*	78.7 *1082 (848, 1316)*	12.8 *170 (64, 275)*	6.6 *77 (5, 148)*
30 – 39	154 *1876 (1627, 2130)*	112.1 *1391 (1156, 1625)*	27.3 *327 (200, 454)*	14.6 *158 (65, 252)*
40 – 49	80 *942 (743, 1141)*	61.3 *707 (531, 884)*	14.4 *192 (87, 297)*	4.4 *43 (-1, 87)*
50 – 59	64 *714 (535, 893)*	42.1 *521 (356, 686)*	9.5 *100 (28, 172)*	9.4 *93 (21, 165)*
60+	18 *406 (199, 613)*	14.7 *338 (143, 533)*	–	3.4 *68 (-21, 156)*
Practitioner division				
DH	132 *1438 (1216, 1660)*	101.6 *1135 (923, 1347)*	21.9 *236 (131, 342)*	8.6 *67 (15, 119)*
DT	34 *664 (432, 896)*	22.7 *446 (248, 643)*	5.8 *97 (19, 183)*	5.6 *121 (6, 236)*
OHT	223 *2787 (2506, 3068)*	166.6 *2130 (1850, 2409)*	36.3 *456 (303, 608)*	20.2 *202 (97, 306)*
DT/DH	25 *377 (222, 532)*	21.0 *328 (180, 477)*	–	4.0 *49 (0, 97)*

Multiple imputation was used to increase responses due to missing postcode data.

Decimal places and confidence intervals are caused by multiple imputation of region for responses.

Appendix Table 14.1. Predicted number of years until practitioner retirement by characteristics and region in Australia. Statistics are reported as mean (95% CI).

	Mean predicted years until retirement (95% CI)			
	All regions	Major City[#]	Inner Regional[#]	Outer Regional and further[#]
Australia	**18.6 (17.3, 19.9)**	**18.9 (17.4, 20.4)**	**19.7 (16.7, 22.7)**	**13.7 (9.8, 17.6)**
State				
NSW	20.7 (17.9, 23.4)	20.8 (17.5, 24.2)	21.0 (16.6, 25.4)	9.9 (8.7, 11.0)
VIC	19.1 (16.7, 21.5)	19.9 (17.1, 22.7)	15.5 (10.1, 20.9)	17.4 (7.7, 27.1)
QLD	18.2 (15.8, 20.5)	17.6 (15.1, 20.2)	23.4 (14.6, 32.2)	15.5 (9.3, 21.6)
SA	18.8 (15.9, 21.7)	20.5 (17.5, 23.5)	17.9 (10.3, 25.5)	10.8 (3.1, 18.5)
WA	16.4 (15.9, 21.7)	16.1 (11.6, 20.5)	24.1 (4.2, 43.9)	14.8 (4.7, 24.9)
TAS	16.6 (10.0, 23.2)	–	16.8 (9.5, 24.1)	14.2 (11.8, 16.7)
ACT	8.7 (1.4, 16.0)	8.7 (1.4, 16.0)	–	–
NT	12.1 (0.5, 23.7)	–	–	12.1 (0.5, 23.6)
Gender				
Female	18.4 (17.2, 19.7)	18.6 (17.1, 20.2)	19.8 (16.7, 22.9)	14.5 (10.5, 18.4)
Male	20.2 (14.6, 25.8)	21.9 (16.2, 27.6)	16.7 (1.1, 32.2)	2.1 (1.2, 3.0)
Age (years)				
Less than 30	27.5 (25.2, 29.8)	27.8 (25.2, 30.4)	28.4 (22.9, 33.9)	20.2 (10.5, 30.0)
30 – 39	21.3 (19.6, 22.9)	21.5 (19.7, 23.4)	21.9 (17.8, 26.0)	17.6 (10.9. 24.2)
40 – 49	15.2 (13.1, 17.3)	15.3 (12.8, 17.9)	13.8 (8.4, 19.2)	18.8 (14.7, 22.8)
50 – 59	8.4 (7.5, 9.3)	8.4 (7.4, 9.5)	8.7 (5.8, 11.6)	8.0 (5.8, 10.1)
60+	3.0 (2.1, 3.9)	3.0 (2.1, 4.0)	–	2.7 (0.1, 5.4)
Practitioner division				
DH	15.9 (14.0, 17.8)	16.0 (13.7, 18.3)	15.1 (10.1, 20.2)	15.7 (9.9, 21.5)
DT	7.3 (5.2, 9.4)	7.8 (4.9, 10.7)	9.5 (5.4, 13.6)	4.0 (1.2, 6.7)
OHT	23.5 (21.9, 25.1)	23.8 (21.8, 25.7)	23.9 (20.3, 27.6)	19.8 (15.4 24.3)
DT/DH	12.6 (8.9, 16.4)	10.2 (15.4, 24.3)	13.0 (8.8, 17.1)	10.2 (1.5, 18.8)

 # Multiple imputation of 56 from 414 respondents was used to increase responses due to missing postcode data.
+ Estimates based on responses less than 5.

CHAPTER 20.

APPENDIX: WORKFORCE CAREER INTENTIONS

Appendix Table 15.1. Unweighted characteristics of survey participants career intentions in the next six months by registration division.

	Divisions					Total
	DH	DT	OHT	DT/DH	Other combination‡	
	N = 132	N = 34	N = 223	N = 25	N = 7	N = 421
	n (%)	n (%)	n (%)	n (%)	n (%)	N (%)
Career change intention						
No change	78 (59.1)	19 (55.9)	120 (53.8)	21 (84.0)	3 (42.9)	241 (57.2)
Change	54 (40.9)	15 (44.1)	103 (46.2)	4 (16.0)	4 (57.1)	180 (42.8)
Type of change intention[1]						
Seeking more work	16 (12.1)	1 (2.9)	33 (14.8)	2 (8.0)	0 (0.0)	52 (12.4)
Reducing work hours	13 (9.8)	3 (8.8)	13 (5.8)	2 (8.0)	2 (28.6)	33 (7.8)
Seeking promotion	13 (9.8)	6 (17.6)	41 (18.4)	1 (4.0)	1 (14.3)	62 (14.7)
Career change in dentistry	18 (13.6)	5 (14.7)	32 (14.3)	0 (0.0)	2 (28.6)	57 (13.5)
Career change away from dentistry	10 (7.6)	2 (5.9)	15 (6.7)	2 (8.0)	2 (28.6)	31 (7.4)
Suspending work	7 (5.3)	1 (2.9)	14 (6.3)	0 (0.0)	0 (0.0)	22 (5.2)
Retiring	1 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.2)
Further study	1 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.2)

1 Participants could select more than one response.

‡ Practitioners with other combinations of oral health registrations division were grouped and should be interpreted with caution.

Appendix Table 16.1. Unweighted retirement intentions of survey participants by registration division.

	Divisions					Total
	DH	**DT**	**OHT**	**DT/DH**	**Other‡**	
	N = 132	N = 34	N = 223	N = 25	N = 7	N = 421
	n (%)	n (%)	n (%)	n (%)	n (%)	N (%)
Average[1] age intends to retire	59 (9)	58 (12)	56 (9)	61 (7)	44 (18)	57 (10)
Age intends to retire (years)						
Less than30	2 (1.5)	4 (11.8)	3 (1.3)	0 (0.0)	3 (42.9)	12 (2.9)
30 – 39	4 (3.0)	6 (17.6)	8 (3.6)	0 (0.0)	1 (14.3)	19 (4.5)
40 – 49	10 (7.6)	1 (2.9)	23 (10.3)	1 (4.0)	0 (0.0)	35 (8.3)
50 – 59	34 (25.8)	2 (5.9)	72 (32.3)	4 (16.0)	1 (14.3)	113 (26.8)
60 – 69	78 (59.1)	19 (55.9)	108 (48.4)	18 (72.0)	2 (28.6)	225 (53.4)
70 – 79	3 (2.3)	2 (5.9)	6 (2.7)	2 (8.0)	0 (0.0)	13 (3.1)
80 or more	1 (0.8)	0 (0.0)	3 (1.3)	0 (0.0)	0 (0.0)	4 (1.0)

1 Mean (SD).

‡ Practitioners with other combinations of oral health registrations division were grouped and should be interpreted with caution.

Appendix Table 16.2 Unweighted average intended retirement age by demographic characteristics.

	Median (IQR)
Age (years)	
Less than 30	55 (50, 60)
30 – 39	60 (50, 60)
40 – 49	60 (55, 65)
50 – 59	65 (60, 65)
60 or more	67 (65, 68)
Gender	
Male	59 (45, 65)
Female	60 (54, 65)
State of primary practice	
NSW	60 (55, 65)
VIC	58 (50, 65)
QLD	60 (55, 65)
SA	60 (50, 65)
WA	60 (50, 65)
TAS	60 (50, 65)
ACT	60 (48, 63)
NT	60 (43, 64)

GLOSSARY

ACT
Australian Capital Territory

ADOHTA
Australian Dental and Oral Health Therapist's Association

Ahpra
Australian Health Practitioner Regulation Agency

AIC
Akaike's Information Criteria

BOH
Bachelor of Oral Health

CI
Confidence interval

DH
Dental Hygienists

DHAA
Dental Hygienists Association of Australia

DT
Dental Therapists

FTE
Full time equivalent

GREG
Generalised regression

IQR
Interquartile range

NSW
New South Wales

NT
Northern Territory

OHP
: Oral health practitioner

OHT
: Oral Health Therapists

OPH

QLD
: Queensland

SA
: South Australia

SD
: standard deviation

TAFE
: Technical and Further Education

TAS
: Tasmania

VIC
: Victoria

WA
: Western Australia

EDITORS

Dr. Nicole Stormon, BOH, PhD
THE UNIVERSITY OF QUEENSLAND
https://researchers.uq.edu.au/researcher/24428
https://twitter.com/nicolestormon

Dr Nicole Stormon is a Senior Lecturer at the University of Queensland and AHPRA registered Oral health therapist. The current and inaugural Program Convenor for the School of Dentistry's Doctor of Dental Medicine. She is also the Principal Research Fellow for Queensland Health Metro North Community and Oral Health. An alumnus of the University of Queensland for her undergraduate and postgraduate training, Nicole has become an internationally recognised leader and advocate in Oral Health Therapy.

Large scale data management and quantitative statistical are key skills applied within her research. Health service research is a central theme of her research, with ongoing collaborations with Queensland Health to develop evidence-based and cost-effective models of dental care for children and disadvantaged groups, including people experiencing homelessness. Experienced in relevant HSR research methods including qualitative and scoping methods. Being a clinician herself and her effective collaborations to the health service are key to bridging the knowledge-implementation gap.

Professor Loc Do, BDS, MScDent, PhD
THE UNIVERSITY OF QUEENSLAND
http://researchers.uq.edu.au/researcher/29912

Professor Loc Do is a highly accomplished dentist and oral epidemiologist with a keen interest in social and clinical oral epidemiology. He holds a PhD in Oral Epidemiology from the University of Adelaide and has served as a lead investigator in several national oral health studies. Currently, he is the Chief Investigator A of three major NHMRC-funded and one MRFF research projects, including a population-based birth cohort study exploring the impact of socioeconomic inequality on child oral health, a longitudinal study examining the effect of early life fluoride exposure, and a study investigating the effectiveness of water fluoridation in Queensland.

Professor Do's research interests encompass a broad range of topics, including oral epidemiological measurement of dental diseases, quantitative analysis of oral epidemiological data, risk and benefit trade-off in the use of fluorides in children, natural history of dental fluorosis, socio-economic inequality in oral health, oral health-related quality of life, smoking as a risk factor for periodontal diseases, and complex systems science in dental research.

Professor Loc Do is widely recognised as a prominent and distinguished leader in dental public health. In 2022, he was awarded the International Association for Dental Research IADR Distinguished Scientist H Trendley Dean Award. He has hosted national workshops on fluoridation and has played a crucial role in developing and publishing the national Australian guidelines on the topic. Through his research and contributions to the field, Professor Do has made significant advances in the knowledge of oral health and identifying effective strategies to improve outcomes for populations across Australia.

Mr. Christopher Sexton, BachEd, MBiostat
THE UNIVERSITY OF QUEENSLAND
http://researchers.uq.edu.au/researcher/20103

As a biostatistician with expertise in dental public health, Christopher is interested in updating the evidence on the impact of policies on oral health and promoting evidence-based dentistry. His research has focused on the effectiveness of water fluoridation in Queensland and its impact on oral epidemiology. Christopher has extensive experience in the application of statistical methods, including designing sampling methods, quantitative data analysis methods, geospatial analysis, statistical programming, data visualization, and multi-level data analysis.

Christopher's research themes are centred around water fluoridation policy in Queensland and oral epidemiology, and dental initiatives such as the Child Dental Benefits Schedule. He is committed to advancing the field of dental public health and promoting the use of evidence-based policies to improve oral health outcomes for individuals and communities.

AUTHORS

Dr. Nicole Stormon, BOH, PhD
THE UNIVERSITY OF QUEENSLAND
https://researchers.uq.edu.au/researcher/24428
https://twitter.com/nicolestormon

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Associate Professor Melanie Aley, BOH, BHSc(Hons), GCALL, MEd, PhD

THE UNIVERSITY OF SYDNEY

https://www.sydney.edu.au/medicine-health/about/our-people/academic-staff/melanie.aley.html

Melanie Aley (nee Hayes) is currently an Associate Professor and the Bachelor of Oral Health Program Director in the Sydney School of Dentistry. She teaches periodontics and professional practice, as well as transition modules for first-year students. She is a Senior Fellow of the Higher Education Academy (UK) and an Accredited University-wide Peer Reviewer of Teaching.

Prior to her current role, Mel was the the Head of Work Integrated Learning, in the School of Health Sciences, Faculty of Medicine and Health. Her role involved academic leadership of the WIL team and strategic planning, as well as teaching and coordinating professional placement units in Health Sciences. Previously she was involved in teaching Industry and Community Project Units, which provide senior students from all Faculties the opportunity to work together on real-world problems for industry partners.

Mr. William Carlson-Jones, BOralHlth, GCertOralHlthSc (Adel), GCertEdStudies (Higher Ed) (Syd), MBA (Accounting) (S.Cross), MAICD, FHEA, PhD Candidate (Qld)
THE UNIVERSITY OF QUEENSLAND, THE UNIVERSITY OF SYDNEY
https://www.sydney.edu.au/medicine-health/about/our-people/academic-staff/william-carlsonjones.html

William 'CJ' Carlson-Jones is an Oral Health Therapist currently working as a Lecturer in the Discipline of Oral Health with the University of Sydney. CJ has clinical experience within public and private dental practice in rural South Australia, and in clinical education previously teaching into the undergraduate and postgraduate oral health programs at the University of Adelaide.

Completing his undergraduate and postgraduate studies in oral health, education and business administration, CJ has strong aspirations to raise awareness of the important roles played by oral health professionals in improving access to care. CJ is also undertaking a Doctor of Philosophy with the University of Queensland. His research is focusing primarily on impact the transitional workforce from dental therapist to oral health therapist might have upon consumers, public dental services, tertiary institutions, and regional areas.

Dr. Jennifer Gray, PhD, BEd, AssDip Health Admin
THE UNIVERSITY OF ADELAIDE
https://researchers.adelaide.edu.au/profile/jennifer.gray

Dr Jennifer Gray is a member of the academic staff in the School of Dentistry, University of Adelaide. She came to the University from a career as a dental practitioner in the public sector for child oral health, and a dental educator and manager in the South Australian Dental Service, at a time when the University took up the challenge of offering a new degree-based programme in Oral Health to educate future oral health therapists. Jennifer accepted an appointment as Senior Lecturer. Jennifer has contributed to bodies such as the Oral Health Advisory Committee, College of Oral Health Academics, the Dental Board of South Australia and the Australian Dental

Council. Jenny teaches in the areas of health promotion and population health. She has recently established the Graduate Certificate in Oral Health Science (Adult Therapy). In 2016, Jennifer was appointed Director of the National Oral Health Promotion Clearinghouse.

Mr. Tan Nguyen, BOralHlth GCertDentThrpy MPH (Mel) MSc (Clin Ed) (Edin)
DEAKIN UNIVERSITY, MONASH UNIVERSITY

Tan Nguyen is an early career researcher at the Deakin University Institute for Health Transformation and PhD candidate at Monash University. His research seeks to understand what interventions provide the best value for investment to prevent oral diseases. Tan Nguyen has received a major international award for his work on economic evaluation methods of oral health preventive interventions.

Mr. Christopher Sexton, BachEd, MBiostat
THE UNIVERSITY OF QUEENSLAND
http://researchers.uq.edu.au/researcher/20103

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