

Dental workforce analysis

Key points

The dental profession comprises 3.2% of the regulated health practitioner workforce at 30 June 2020

The dental practitioner workforce increased by 12.3% over five years, from 21,741 in 2015/16 to 24,406 in 2019/20

Introduction

The information in this report is provided as a resource to assist and inform the National Board in its regulatory work and planning. The demographic analysis, which is based on National Scheme and published data from other sources, complements the [published demographic snapshot](#) with a more detailed description and discussion of trends in the dental workforce.

Current state – general demographics and characteristics

Profession overview

At 30 June 2020, there were 24,406 dental practitioners registered across five divisions, with 96.9% holding some form of practising registration.

The dental profession comprises 3.2% of the regulated health practitioner workforce, with 92 practising dental practitioners per 100,000 head of population.

Almost 75% of dental practitioners are dentists, 9% are oral health therapists, 8% are dental hygienists, 5% are dental prosthetists and 5% are dental therapists.

A small number of dental practitioners (2.2%) hold registration in more than one division. Of these, almost all (99.4%) hold registration in more than one of the dental hygienist, dental therapist or oral health therapist divisions. The majority of this group hold dual registration as dental hygienist and dental therapist.

Across the profession, 89.3% of dental practitioners hold general registration and 3.1% hold non-practising registration. The remainder are dentists holding both general and specialist registration (7.2%), specialist only registration (0.2%) and dental practitioners holding limited registration (0.2%).

The average age of dental practitioners across all divisions is 43.5 years, with 52.6% being female and 47.4% male. Just under one-third (31.2%) are aged under 35 years and 23.6% are aged 55 years or older. Just over one in four (26.5%) obtained their initial qualification outside Australia. Dental practitioners work predominantly in private practices, in major cities and work an average of 34.7 hours per week [1-6]

Dentists

At 30 June 2020, there were 18,218 registered dentists in Australia (including 16 also registered in other divisions), with almost 96.8% holding practising registration. The average age of dentists is 44 years, with 55.6% of being male and 44.4% female. Approximately 10% hold specialist registration.

According to the 2019 National Health Workforce Survey [7] by the Commonwealth Department of Health, 88% of registrants were employed in the profession in Australia. Employed dentists worked an average of 35.4 hours per week, with 86% (97% of employed dentists) defining their principal role as clinicians, and the remainder as administrators, educators or researchers.

Of dentists who provided information on work setting, 83% reported that they work in some form of private practice (group, solo or locum) in their principal work role and almost 10% in hospitals and public clinics. The remainder (7%) work in other settings such as educational facilities, government departments, residential and community health settings. When adjusted for full time equivalence (38 hours per week), 89.3% of clinicians work in the private sector in their principal role. [1-6]

Nationally, there are 68.6 practising dentists per 100,000 population. The ratio is 75.5 per 100,000 in major cities, 46.8 per 100,000 in regional areas (inner and outer) and 23 per 100,000 in remote and very remote areas.

Dental specialists

At 30 June 2020, there were 1,802 dentists holding specialist registration, constituting around 10% of all registered dentists. Orthodontics is the predominant specialty, accounting for 34% of specialist registrations, followed by oral and maxillofacial surgery, periodontics and prosthodontics (each accounting for 12-13% of specialist registrations).¹ The smallest specialties are dento-maxillofacial radiology and public health dentistry (community dentistry) (each less than 1% of specialist registrations).²

Dental specialists are predominantly male (71%) and the majority of specialties have a higher proportion of male than female registrants. The proportions of male and female registrants are approximately the same in the small specialties of dento-maxillofacial radiology, oral medicine, public health dentistry and special needs dentistry. The proportion of female registrants is higher in only one specialty, paediatric dentistry.

Just over half (51%) of the specialist workforce is under the age of 50 years and 49% is 50 years or older. Specialties with the oldest age profiles are forensic odontology, orthodontics, prosthodontics and public health dentistry. Specialties with younger age profiles are periodontics and the small specialties of dento-maxillofacial radiology, oral medicine, oral and maxillofacial pathology and paediatric dentistry.

Some specialties have practitioners in all states and territories while others do not. Similarly, some jurisdictions have practitioners from all specialties while others do not. Jurisdictions with practitioners from all specialties are NSW, Vic, Qld and WA. Specialties with practitioners in all states and territories as at 30 June 2020 are endodontics, forensic odontology, oral and maxillofacial surgery, orthodontics and periodontics.

Dental prosthetists

At 30 June 2020, there were 1,273 registered dental prosthetists in Australia (which includes nine also registered in other divisions), of whom 97.2% held some form of practising registration. The average age is 51.3 years, with 81.5% of dental prosthetists being male and 18.5% female.

According to the 2019 National Health Workforce Survey [7], 93% of dental prosthetists were employed in the profession in Australia. Employed dental prosthetists work an average of 37.3 hours per week, with 93% defining their principal role as clinicians, and the remainder as administrators, educators or

¹ Oral and maxillofacial surgery is a recognised specialty in both dentistry and medicine. Qualified practitioners can obtain specialist registration with the Dental Board or the Medical Board or both. At 30 June 2020, there were 228 practitioners registered with the DBA and 160 registered with the Medical Board as specialists in the area of oral and maxillofacial surgery.

² The first approved program of study for public health dentistry was approved from 1/1/21, which may impact on future numbers of registrants in the specialty.

researchers. Around 78% work in some form of private practice (group, solo or locum) and 9% in hospitals and public clinics. Nationally, there are 4.8 practising dental prosthetists per 100,000 population. The geographic distribution was 4.8 per 100,000 in major cities and 5 per 100,000 in regional areas. This drops to 0.6 per 100,000 in remote and very remote areas.

Dental hygienists, dental therapists and oral health therapists

At 30 June 2020, there were 4,937 individual practitioners registered in the divisions of dental hygienist, dental therapist and oral health therapist.

Of these practitioners, 531 (10.8%) were registered in more than one division, 498 were registered in two divisions and 33 were registered in three divisions. The majority of this group (512, or 96%) held registration in more than one of the dental hygienist, dental therapist and oral health therapist divisions (most commonly dual registration as dental hygienist and dental therapist). A small number (19) also held registration as a dentist or dental prosthetist.

While the number of unique individuals registered in the dental hygienist, dental therapist and oral health therapist divisions is 4,937, when their registrations are counted separately (for example, dual registrants counted in both divisions in which they are registered), the number of individual registrations rises to 5,482.

For the purposes of this analysis, practitioners registered in multiple divisions are counted in every division in which they are registered. While this results in double counting and substantially increases registration numbers in cases like the dental therapist division, it provides a more accurate picture of the practitioners who choose to register in the various divisions.

To illustrate, there are 832 practitioners who are registered solely in the dental therapist division, and there are 442 registered in both the dental hygienist and dental therapist divisions. Consequently, the dual registered practitioners increase the overall number of dental therapist division registrations by 53%, which will also then be counted in the dental hygienist registration numbers.

Practitioners in the divisions of dental hygienist, dental therapist and oral health therapist collectively make up 20.2% of the regulated dental workforce and 0.6% of the total registered health practitioner workforce.

Data from the 2019 National Health Workforce Survey [7] suggests that more than half of registrants in dental hygienist, dental therapist and oral health therapist divisions work part time hours (less than 35 hours per week).

The workforce is predominantly female (91.8%). Of all registrants in these divisions, 97% have general registration and 3% have non-practising registration.

Of dental hygienist, dental therapist and oral health therapist practitioners who provided information on job setting, 69% work in private practice settings (group, solo or locum private practices), 26% in hospitals and clinics (including public), the remainder in other settings. Nationally, there are 18.6 practitioners per 100,000 head of population. The geographic distribution is 20.2 per 100,000 population in major cities, 14.5 per 100,000 population in regional areas and 8.5 per 100,000 population in remote and very remote areas.³

Dental hygienists

Dental hygienists (including dual registered) make up 8% of the regulated dental workforce. They are predominantly female (93.9%) with an average age of 42 years. Some 96.2% hold general registration and 3.7% hold non-practising registration. Just over 22% of dental hygienists also hold registration as dental therapists.

According to the 2019 National Health Workforce Survey [7], 87% of dental hygienist registrants were participating in employment in the profession in Australia. Employed dental hygienists worked an average of 28 hours per week, with 97% reporting their principal job as in the private sector.

³ These ratios are based on the number of unique individuals with some form of practising registration. The ratios for the individual divisions are based on the number of practising registrations (not individuals).

Some 97% of employed dental hygienists defined their principal role as clinicians, the remainder as administrators, educators or researchers. Of those who provided information on job setting, 92% worked in private practices (group, solo or locum private practice), 2% in GP clinics and hospitals and 1.5% public clinics and community services. Nationally, there are 7.4 practising dental hygienists per 100,000 population. In major cities, the ratio is 8.6 per 100,000. This drops to 4.2 per 100,000 in regional areas and 2 per 100,000 in remote and very remote areas.

Dental therapists

Dental therapists (including dual registered) make up 5% of the regulated dental workforce. They are predominantly female (95.4%) with an average age of 52 years. Some 95.4% hold general registration and 4.6% hold non-practising registration. They are typically older than registrants in other divisions, with 63% between the ages of 45 and 64. Almost 35% of dental therapists also hold registration as dental hygienists.

According to the 2019 National Health Workforce Survey [7], around 83% of dental therapist registrants were employed in the profession in Australia. Employed dental therapists worked an average of 30.2 hours per week. Dental therapists are more likely than other dental divisions to work in the public sector, with 75% reporting (in the National Health Workforce Survey) that their principal role is in the public sector.

Some 92% of employed dental therapists defined their primary role as clinician, the remainder primarily as educators, administrators and researchers. Of dental therapists who provided information on work setting, almost 63% reported working in public clinics or community services. Around 26% worked in private practices (group, solo or locum), and 6% in GP clinics or hospitals. Dental therapists are more likely than practitioners in other dental divisions to work outside major cities. Nationally, there are 4.9 practising dental therapists per 100,000 population. There are 4.8 practising dental therapists per 100,000 population in major cities, 5.2 in regional areas (inner and outer) and 3.5 in remote and very remote areas.

Oral health therapists

Oral health therapists make up 9% of the regulated dental workforce.⁴ They are predominantly female (87.5%), with the proportion of male registrants in this division higher than in the dental hygienist and dental therapy divisions, at 12.5% (6.1% and 5.4% for dental hygienist and dental therapy divisions, respectively).

According to the 2019 National Health Workforce Survey [7], around 88% of oral health therapist registrants were employed in the profession in Australia. Employed oral health therapists worked an average of 34.2 hours per week. Almost 73% of oral health therapists report their principal job to be in the private sector and 27% in the public sector.

Almost 98% of employed oral health therapists defined their primary role as clinician. Of oral health therapists who provided information on work setting, 68% worked in private practices, 22% worked in public clinics or community settings. Around 5.4% worked in in GP clinics or hospitals. Nationally, there are 8.4 practising oral health therapists per 100,000 population. There are 9.1 practising oral health therapists per 100,000 population in major cities, 6.5 in regional areas and 3.9 in remote areas.

Trends over the last five years

The dental practitioner workforce increased by 12.3% over five years, from 21,741 in 2015/16 to 24,406 in 2019/20. Over the same period, dentists declined slightly from 74.8% to 74.6% of all dental registrants and dental prosthetists declined from 5.7% to 5.2% of dental registrants. Those registered in the other divisions - as dental hygienists, dental therapists and oral health therapists – increased from 19.4% to 20.2% of dental registrants. Across all divisions, the proportion of male registrants declined from 51% to 47%, with a corresponding increase in female registrants from 49% to 53% of registrants.

Dentists

The dentist workforce increased by 11.9% over the 2015/16 to 2019/20 period. The proportion of dentists in the different categories of practising registration was essentially stable over the period, with only small

⁴ If dual-registered dental hygienists and dental therapists are added, this rises to 10.8% of the regulated dental workforce.

fluctuations (0.1% – 0.4%). Those with non-practising registration increased from 2.5% in 2015/16 to 3.2% in 2019/20.

The proportion of female registrants increased from 40.6% in 2015/16 to 44.4% in 2019/20. There was a small decrease in the average hours worked (36 hours in 2015 to 35.4 in 2019). Of those dentists who provided information on hours worked, there was a decrease in the proportion working more than 35 hours per week (from 64.7% to 61.6%) and a decline in those working 50 or more hours per week (from 9.7% to 8.7%).

The dentist workforce increased in all jurisdictions by at least 7.5% over the period but there was little change in geographic distribution. The proportion working primarily in private practice appears to have remained stable at just over 83%, while the proportion working in hospitals and public clinics appears to have declined from 11.1% in 2015/26 to 9.8% in 2019/20.

Dental specialists

Dental specialist registrations increased by 7.9% over the 2015/16 to 2019/20 period.⁵ As the growth in all dentists (11.9%) is greater than the growth in specialist registration, specialist registrations declined as a proportion of all dentists from 10.5% in 2015/16 to 10.1% in 2019/20. The proportion of male specialists declined from 74.4% in 2015/16 to 71.1% in 2019/20, with a corresponding increase in female specialists from 25.6% to 28.9%.

The number of practitioners with specialist registration grew over the period in all but three of the specialties, with increases ranging from 4% to 30%. In the smaller specialties, minor changes in numbers produces a high percentage change. The greatest percentage increase was in the specialty of dento-maxillofacial radiology, where the number of practitioners increased by 30% from 10 to 13. The number of practitioners registered in special needs dentistry increased by 25%, from 16 to 20 practitioners.

In the largest specialty of orthodontics, the number of practitioners increased by 4.3%, from 605 to 631 practitioners.

The number of practitioners declined in the specialties of forensic odontology (down 11.5%, from 26 to 23 practitioners), oral and maxillofacial pathology (down 8.3%, from 24 to 22 practitioners) and public health dentistry (down 6.3%, from 16 to 15 practitioners).

As a proportion of all specialist registrations, orthodontics declined from 35.3% in 2015/16 to 34.1% in 2019/20, reflecting relative higher growth in other specialties. Paediatric dentistry increased from 7.6% of all specialist registrations in 2015/16 to 8.4% in 2019/20. Oral and maxillofacial surgery increased from 11.8% in 2015/16 to 12.4% in 2019/20.

Dental prosthetists

The dental prosthetist workforce (including those registered in other divisions) increased by 1.3% over the period 2015/16 to 2019/20.

Dental prosthetists as a proportion of registered dental practitioners declined from 5.7% in 2015/16 to 5.2% in 2019/20. The proportion of female registrants increased from 16.1% to 18.5% over the period.

The proportion of dental prosthetists with general registration declined slightly from 97.5% in 2015/16 to 97.2% in 2020. Those with non-practising registration increased from 2.5% in 2015/16 to 2.8% in 2020.

Of all dental divisions, dental prosthetists have the highest average hours, the highest proportion of practitioners working 35 or more hours per week and the highest proportion of those working 50 or more hours per week, although there were declines in all these areas over the time period.

According to the 2019 National Health Workforce Survey [7], average hours worked 37.3 per week. This is a decline from 38.7 hours per week in 2015. There was a decrease in the proportion of dental prosthetists

⁵ In 2015/16, 1,662 individual practitioners held specialist registration, and 52 of them held registration in more than one specialty. In 2019/20, 1,802 individual practitioners held specialist registration, with 45 holding specialist registration in more than one specialty.

working more than 35 hours per week (from 73.1% in 2015 to 70.1% in 2019) and in those working more than 50 hours per week (from 21.8% to 18.8%).

There was little change in the dental prosthetist workforce over the period, in terms of numbers and distribution. The largest changes were an increase of 7.4% in Qld and a 12.5% decline in the ACT. There were declines in NSW, Tas and WA and small increases in SA and Vic. The proportion working in private practice has declined from 86.4% in 2015 to 83% in 2019. The proportion working in hospitals and public clinics increased from 8.5% in 2015 to 9.4% in 2019.

Dental hygienists, dental therapists and oral health therapists

The number of practitioners registered in the divisions of dental hygienist, dental therapist and oral health therapist increased by 17% over the period 2015/16 to 2019/20. As a proportion of the dental profession, this group of practitioners increased from 19.4% of dental practitioners in 2015/16 to 20.2% in 2019/20.

There was a noticeable shift in registrations within these divisions, with the number of dental therapist registrants declining by 12.7% over the period and the number of oral health therapist registrants increasing by 67.6% over the period.⁶ This is likely due to a shift in the educational landscape, as dental therapy programs are progressively being replaced by oral health therapy programs. Oral health therapy programs can lead to registration in any or all three of the dental therapist, dental hygienist and oral health therapist divisions.

In 2015/16, registrants in the dental hygienist division formed the largest group in this workforce (40% of registrants), followed by dental therapists (32% of registrants) and oral health therapists (28% of registrants). In 2019/20, oral health therapists were the largest group, with 40% of registrants in these divisions. The number registered as dental hygienists has dropped to 36% and dental therapists to 24%, reflecting the changes to educational programs being offered.

Dental hygienists

According to Ahpra data, the number of practitioners registered as dental hygienists increased by 3.7% over the period 2015/16 to 2019/20, or by an average of 0.7% per year.

The proportion of dental hygienists with general registration declined slightly from 97.5% in 2015/16 to 96.2% in 2019/20. Those with non-practising registration increased from 2.4% in 2015/16 to 3.7% in 2019/20. Dental hygienists with a form of practising registration declined from 97.6 in 2015/16 to 96.3% in 2019/20.

Of all dental divisions, dental hygienists have the lowest average hours, the lowest proportion of practitioners working 35 or more hours per week and the highest proportion of those working part time hours. According to the 2019 National Health Workforce Survey [7], average hours worked was 28 per week. This is only a slight decline from 28.2 in 2015. There was little change in the dental hygienist workforce over the period, in terms of distribution and work setting. Small observed declines may be attributable to shifts between divisions.

Dental therapists

According to Ahpra data, the number of practitioners registered as dental therapists declined by 12.7% over the period 2015/16 to 2019/20, or by an average of 2.5% per year.

The proportion of dental therapists with general registration declined slightly from 97% in 2015/16 to 95.4% in 2019/20. Those with non-practising registration increased from 3% in 2015/16 to 4.6% in 2019/20.

Of all dental divisions, dental therapists have the highest average age and smallest proportion of registrants under the ages of 40 and 55 years, with these trends becoming more pronounced over the period.

⁶ These figures include practitioners registered in more than one division. The number of practitioners with single registration in the division of dental therapist declined by 18.1% over the period. The number of practitioners with single registration in the division of oral health therapist increased by 63.4%.

According to the 2019 National Health Workforce Survey [7], average hours worked by dental therapists was 30.2 per week. This is a slight increase from 29.7 in 2015. There was little change in the distribution or work settings of the dental therapist workforce over the period. Small observed declines may be attributable to shifts between divisions.

Oral health therapists

The number of practitioners registered as oral health therapists (including those also registered in other divisions) increased substantially (67.6%) over the period, from 1,304 in 2015/16 to 2,186 in 2019/20, or by an average of 13.5% per year.

Of all divisions, oral health therapists have the lowest average age (31 years) and the highest proportion of registrants in the younger cohorts. This is expected as the oral health therapy programs and the division itself are still relatively new. These demographics, along with the substantial increase in registrants in the oral health therapy division and decline in the dental hygienist and dental therapy divisions, reflect the movement of registrants between divisions and new entrants electing to register as oral health therapists in preference to other divisions.

Supply and demand – observations and insights

The domestic ‘pipeline’

According to the student register, there were 4,416 students enrolled in dental studies in 2019/20. Of these, approximately 68% are recorded as enrolled in courses leading to general registration as a dentist, around 27% are undertaking oral health therapy and dental hygiene courses and just over 4% in dental prosthetics.

Dentists

Data published by the Department of Education, Skills and Employment (DESE) [8] shows that enrolments in general dentistry courses (for example, those leading to general registration as dental practitioners) have remained generally stable from 2015/16 to 2019/20, averaging around 2,750 per year over the period.

While not directly comparable, data from the student enrolment suggests that around 54% of dentistry students are female and 46% male.⁷ This is different from the current profile of registered dentists, which is 55.6% male and 44.4% female. Around 63% of students are under the age of 25 and almost 97% under the age of 35. A small proportion (2.8%) is aged 45 years or older.

There are currently 51 active approved programs of study for dentists and dental specialists. Of these, 10 are approved for general registration, one for endorsement and 40 for specialist registration.⁸

Approved programs of study	No. programs
	June 2021
Dento-maxillofacial radiology	2
Endodontics	5
Forensic odontology	1
Oral and maxillofacial surgery	1
Oral and maxillofacial pathology	2

⁷ Data differences appear to relate to timing of collection and reporting of data and so there may be cohort-related differences in some figures. However, the basic demographics are assumed to be broadly comparable.

⁸ Specialist registration operates for the dentist’s division of the register only.

Oral medicine	4
Oral surgery	1
Orthodontics	5
Paediatric dentistry	3
Periodontics	6
Prosthodontics	5
Public health dentistry	1
Special needs dentistry	4
Endorsement – conscious sedation	1
General registration	10

DESE [8] publishes data on commencement and completion rates for some programs of study, including programs leading to registration as a dental practitioner. There are limitations inherent in the data set such that an accurate analysis of completion rates for courses leading to registration as a dental practitioner is not possible at this time.

Dental specialists

No published data has been identified in relation to the number of students enrolled in specialist programs or on completion rates. Both the DESE data and the Ahpra student register relate only to students enrolled in programs leading to general registration as a dentist. According to the Australian Dental Council (ADC) [9], there were 199 students enrolled in specialist training in 2018.

Dental prosthetists

According to the student register at 30 June 2020, there were approximately 185 students registered as enrolled in approved programs of study for dental prosthetists. The data suggests that approximately 100 – 120 students commence studies in these programs each year.⁹ There is no published DESE data available for comparison.

Of students enrolled in dental prosthetics, 49.7% are female and 50.3% male. This profile is quite different from the current prosthetist workforce, which is male dominated (81.5%). Around 53% are aged under 25 years, 69% of students are aged under 30 years and 30% aged 30 years or older. The proportion aged over 45 years is 7 – 8% (compared with 2.8% for dentistry and 1.3% for oral health therapy).

Institutions have changed the way approved dental prosthetics programs are delivered, with two institutions phasing out programs at various AQF levels and moving to Bachelor level programs. In 2015/2016, four programs were offered by TAFEs, with one in higher education sector. In 2019/2020 only two TAFEs continue to offer an Advanced Diploma level program, with the other two institutions now delivering Bachelor level qualifications.

⁹ Data provided by the ADC for the period 2016 to 2018 suggests an average of 114 students per year but notes changes to the VET sector programs in 2016 which may have affected enrolments. The figure for 2018 is 119 students across ADC accredited programs.

Dental hygienists, dental therapists and oral health therapists

According to the student register at 30 June 2020, there were 1,189 students registered as enrolled in approved programs of study for the divisions of dental hygienist, dental therapist and oral health therapist.

The number of approved programs for this workforce appears not to have changed much over the period 2015/16 to 2019/20. According to the ADC [9], there were nine accredited programs in 2015, plus three accredited for dental hygienists only. Currently, there are 10 approved programs, eight of which are common to all three divisions and two for dental hygienists only. It appears that two institutions have withdrawn from this market, while another has consolidated its programs.

Of students registered as enrolled in approved programs of study for the divisions of dental hygienist, dental therapist and oral health therapist, 86% are female and 14% male. This profile is a little different from the current workforce which is more female dominated (91.5% female and 8.5% male), noting however that there is a higher proportion of male registrants in the oral health therapist division (87.5% female and 12.5% male).

On the available data, it appears that around 60.2% of students are aged under 25 years and 86.5% aged under 30 years. A small proportion (2.0%) is aged 45 or over.

Based on the limited data available through the student register, it appears that around 70% of students in oral health courses are expected to complete their studies within three years and 30% in four to six years. These figures take no account of students who may drop out at some stage during their studies.

Some further (more robust) insight into the student pipeline and relevant trends may be achieved through a more detailed analysis of the student register over time.

The broader workforce context – unregulated dental workforce

The dental workforce beyond the regulated professions includes the occupations of dental technician and dental assistant. Given that training and experience in dental technology is a prerequisite for entry into two of the four Advanced Diploma of Dental Prosthetist training programs, or is included in the program curriculum itself, the dental technician workforce may be a potential 'feeder' pool for these divisions. Dental assistants also may also choose to undertake more advanced studies at some future time as dental assisting is a prerequisite for the Advanced Diploma in Oral Health (Dental Hygiene) that leads to registration as a dental hygienist.

The Australian Industry Skills Committee (AISC) [10], based on Australian Bureau of Statistics (ABS) employment projections [11-13], identified the dental assistant employment group as larger and growing more strongly than the occupational grouping of '*Dental Hygienists, Technicians and Therapists*' (which includes dental hygienists, dental prosthetists, dental therapists and oral health therapists). It reported that growth in the latter group was evident but inconsistent over the 20 years from 2000 to 2020, whereas the dental assistant workforce had more than doubled over the period from 10,500 in 2000 to 23,800 in 2020. Further, the projections are for the dental assistant workforce to grow to 36,400 by 2024.

The Dental Industry Reference Committee (IRC) is responsible for national training package qualifications (Vocational Education and Training [VET] sector) relevant to various roles in dental practice. While the specific focus is on skills training for non-registered roles, the Dental Services Package [14] within the Health Training Package is relevant to dental prosthetists, as well as to dental technicians and dental assistants. The package is developed by SkillsIQ as a joint initiative of Commonwealth and state and territory governments.

AISC [10] reported that in 2019, there were close to 7,000 enrolments in Dental Training Package courses, with 86% of these in dental assisting. AISC also reported that although enrolments in the Package have increased over recent years, completions have been declining. In a 2020 update to its 2019 Future Skills Survey, SkillsIQ noted significant impact of COVID, with students having limited access to the practical experience required to complete their qualifications.

The June 2021 the National Skills Commission (NSC) released a Skills Priority List [15] which provided a detailed view of shortages and expected future demand for almost 800 occupations across Australia. The listing has been updated annually since. The list identifies the occupation of dental assistant as in shortage nationally and in every jurisdiction, with moderate future demand. The occupation of dental technician is identified as in shortage nationally, and future demand is considered to be strong. The Skills

Priority List, as it pertains to the regulated dental profession, is considered in sections on workforce shortage and employment projections below.

Overseas-trained practitioners

Whilst overall numbers are limited by Australia's entry pathways, there are several indicators of the national reliance on overseas-trained practitioners (OTPs) including:

- the number of registered practitioners in the existing workforce whose initial qualification was obtained overseas
- the number of OTPs being added to the register each year, and
- the number of practitioners entering Australia each year via skilled work visas.

Of note, travel restrictions imposed in 2020 due to the COVID pandemic are likely to have reduced the number of new OTPs that would have otherwise commenced work in Australia in the 2019/20 period.

Overseas qualifications

According to the 2019 National Health Workforce Survey [7], across all dental practitioners, around one-quarter had obtained their initial qualification outside Australia.

The proportion of practitioners with initial qualifications from outside Australia varies considerably between dental divisions. Close to 30% of dentists obtained their initial qualifications overseas, compared with 15% of dental hygienists, 9% of dental therapists, 2% of oral health therapists and 3.5% of dental prosthetists. This could be due to Australia having an established list of qualifications deemed equivalent for dentists, but not for the other divisions. Applicants from the other dental practitioner divisions are required to sit an exam, which could potentially impact the number of applicants.¹⁰

The proportion of overseas trained practitioners declined slightly (between 0.2 and 1.0%) in all divisions over the period from 2015 to 2019.

With respect to dentists, a review of the data by age shows a decline of around 11% (from 2015 to 2019) in overseas trained practitioners in the youngest cohort (20–35 years). This is consistent with increases in approved programs, and, when combined with student numbers, suggests a stability in domestic supply going forward.

Additions to the register

In 2019/20, there were 217 internationally qualified dental practitioners (which includes those registered under Trans-Tasman Mutual Recognition arrangements [TTMR]) added to the register, bringing the five-year total to 983. This group predominantly consisted of dentists. Internationally qualified dental practitioners added to the register made up 0.9% of all dental practitioners in 2019/20, up from 0.7% in 2015-16.[16]

Deeper analysis of internationally qualified general dentist applicant data for 2015/16 and 2019/20 suggests that there was an increase in both the number of overseas-qualified dentists added to the register and those registered under the TTMR, but not as a proportion of total registrations. In both 2015/16 and 2019/20, internationally qualified general dentists added to the register constituted 1% of registrants, and those registered under TTMR constituted 0.2% of registrants.

Visa statistics

The Department of Home Affairs [17, 18] publishes data relating to the number of temporary resident visas granted and the number of visa holders at specific points in time. Where the number is below five, Home Affairs does not publish an exact figure. Note that the data presented relates to primary applicants in specific visa classes.

¹⁰ In January 2023, qualifications from the United Kingdom, Ireland and New Zealand were deemed substantially equivalent for all divisions. Dentistry qualifications from Canada are also recognised as being substantially equivalent for the purposes of registration.

Visa data is organised according to the ANZSCO occupational framework. Oral health therapists are not separately identified in this structure. Rather, they are considered a specialisation of dental therapist and any visas granted to oral health therapists are included in the data for dental therapists.¹¹

The occupations of dentist, dental prosthetist, dental hygienist and dental therapist are included on only one of the Home Affairs skilled migration lists [17, 18] – the Regional Occupations List (ROL). This means that overseas trained practitioners are only eligible to apply for visas relating to work in regional locations and must be nominated by an employer. The occupation of ‘dental specialist’ is included on the Short-term Skilled Occupations List (STSOL), which requires nomination/sponsorship by a state government and includes eligibility for some visa classes not restricted to regional areas.

Home Affairs data shows that, over the period 2015/16 to 2019/20, there were 206 temporary resident skilled visas granted to the dental workforce, with 98% of these practitioners being dentists (general 95% and specialist 3%) [17, 18]. Fewer than five temporary resident visas were granted to practitioners in other divisions over the period.

At 30 June 2020, there were around 45 dentists (general and specialist) holding temporary resident skilled visas in Australia, compared with an estimated 93 visa holders at 30 June 2016 [17].¹² According to the data, there were no visa holders in other divisions in Australia at 30 June 2020.

The number of dental practitioners holding visas in June 2020 was less than half the number of visa holders in June 2016. This is consistent with changes to visa arrangements since 2015/16 that have restricted migration opportunities for dental practitioners to regional, state-sponsored positions (with the exception of dental specialists, who are eligible for some visas not restricted to regional areas).

With respect to dentists, the decrease in the proportion of registrants in the youngest age cohorts who obtained their initial qualifications outside Australia, together with the decline in practitioners on skilled working visas suggests an increasing reliance on domestic supply.

The figures indicate that almost all of Australia’s dental prosthetist, dental hygienist, dental therapist and oral health therapist workforces are domestically trained.

Trends and intentions

A review of the lapsed registration data and the 2019 National Health Workforce Survey [7] in relation to ‘years intended to work’, by age breakdown, provides some indication of likely attrition over the next few years. The National Health Workforce Survey includes questions relating to years intended to work in the profession, which can be used as a measure of intention to cease practising.

The combination of historical growth rates, the age profile of the existing workforce and expressed intentions to work, enable an assessment of likely exits from the profession and an indication of whether new entrants are likely to replace exits over coming years. An assessment of low replacement rate does not equate to workforce shortage, as shortage is relative to demand, which is not assessed as part of replacement rate.

The Department of Health [19] has estimated the replacement rate across all dental divisions as 2.5. That is, for every dental practitioner who leaves the register, another 2.5 are added. This figure is based on the number of practitioners with general, specialist or limited registration who were employed at the time of the National Health Workforce Survey.

¹¹ In the Final Report of the Inquiry into Australia’s Skilled Migration Program (released August 2021) it is identified that ANZSCO is outdated and recommended that it be replaced by a more up to date and flexible skills identification system.

https://parlinfo.aph.gov.au/parlInfo/download/committees/reportint/024680/toc_pdf/FinalReportoftheInquiryintoAustralia'sSkilledMigrationProgram.pdf;fileType=application%2Fpdf

¹² Department of Home Affairs September Qtr published data. Accessed May 2020. The data is confidentialised due to small numbers so it is not possible to determine a precise figure. Best estimate is visa holders at 30 June 2016 somewhere between 89 and 97, mid point is 93. Estimate for 30 June 2020 is 44 or 45.

The analysis in this section is intended to be broadly indicative only. It is based on current age profiles, expressed intentions and historical growth rates. It takes no account of people currently in the training pipeline or demand factors.

Dentists

Based on Ahpra unpublished data on lapsed registrations, the rate of attrition from the profession appears to be in the order of 2.1% per year. On 2019/20 registration figures, this would equate to around 380 dentists leaving the profession in a year. On the historical figures, it could be expected that 93% of those leaving would hold general registration and 7% would be specialists.

Amongst practitioners with general registration, approximately 9% of those in the youngest cohort (under 35 years) intend to work for another 10 years or less. However, across all age groups, the indications are that most (around 88%) intend to work until (or close to) the usual retirement age of 65 years.

The number of registered dentists increased by almost 12% over the five years to 2019/20, with average growth of 2.8% per year. The data suggests that, over the period, new entrants have replaced exits at a rate of 2.3 (meaning for each practitioner leaving the register, another 2.3 have been added).

Almost one-quarter (24%) of registered dentists are aged 55 or older. Of these practitioners, based on their expressed intentions to work, more than one-third will not be working in five years' time and 93% will not be working in 10 years' time. Overall, these figures translate into a likely attrition rate that is consistent with that observed in recent years. If historical growth and attrition rates continue to apply, the trend would be for new entrants to exceed exits, resulting in overall growth in the dentist workforce over coming years.

Dental specialists

The attrition rate for dental specialists appears to be lower than general dentists, at around 1.4% – 1.5% per year. On current registration figures, this would equate to around 26 specialists leaving the profession in a year. The number of practitioners with specialist registration increased by 8.4% from 2015/16 to 2019/20, with an average of 1.9% per year.¹³ If this rate of increase were to apply, the trend would be for new entrants to replace exits at a ratio of around 2.3 (noting that this is an overall figure that does not necessarily apply to individual specialties).

However, there are several factors that suggest that the specialist workforce could diminish over coming years. The attrition rate as calculated here is based on exits from the register and does not capture practitioners who have moved to non-practising registration. Therefore, the number ceasing practice is likely to be higher than suggested by the calculated attrition rate. Across all dentists, the proportion of non-practising registrants increased from 2.5% to 3.2% over the period 2015/16 to 2019/20. It seems likely that most of this change would be related to retiring practitioners. Given the age profile of the specialist workforce (which is older than the general dentist profile) and the intentions to work expressed in the National Health Workforce Survey, it is possible that both non-practising registrations and exits from the register will continue to increase over coming years, with overall attrition higher than that observed in recent years.

Of dental specialists who responded to questions on the 2019 National Health Workforce Survey [7] about intentions to work, almost 20% said they intended to work five years or less, and another 19% intended to work for six to 10 years. Unsurprisingly, both these groups were dominated by practitioners in the older age groups (55–64, 65–74 and 75 and older).

The likely exits from the profession are higher if it is assumed that specialists will generally not work beyond the usual retirement age (65). However, the data shows that close to 15% of currently registered specialists are aged 65 or older. If this trend continued (which would mean that some practitioners stay longer than they currently intend), then exits from the profession would likely be lower than suggested by current intentions, although it is not possible to quantify this.

If the attrition rate in coming years is higher than recently observed, the growth rate of 1.9% per year may not be sufficient to replace exits. Reliable data relating to the number of specialists currently in training

¹³ 1,802 practitioners held specialist registration at 30 June 2020. Of these, 45 held specialist registration in more than one specialty. The number of specialist registrations was 1,850 at 30 June 2021

would enable more understanding of the extent to which new entrants are likely to replace expected exits, as well as allow some differentiation by speciality.

Dental prosthetists

Based on Ahpra unpublished data on lapsed registrations, the rate of attrition from the profession appears to be 2.9% per year. On 2019/20 registration figures, this would equate to around 37 practising dental prosthetists leaving the profession in a year.

According to the National Health Workforce Survey, across all age groups, it appears that dental prosthetists intend for long working lives in their profession. It is only in age brackets above 55 years that the intention to leave within five years reaches double digits. Less than 2% of practitioners under the age of 45 intend to leave within five years. Two-thirds of prosthetists under the age of 35 years intend to work for more than 20 years.

Based on the expressed intentions, it could be expected that 18% of currently registered prosthetists would no longer be working in five years and almost 40% of current registrants would not be working in 10 years. These figures take no account of new entrants.

The dental prosthetist workforce grew by 1.3% from 2015/16 to 2019/20, with average growth of 0.34% per year. If this net growth rate (for example, growth after exits) were to continue to apply to 2025, it could be expected that the number of registered dental prosthetists would increase from 1,273 in 2019/20 to approximately 1,295 by 2024/25. However, in two of the last three years, there was negative growth in this division. In addition, a review of applicant data shows that the number of new entrants was more than one-third lower in 2019/20 than in 2015/16. In 2019/20, the number of registered prosthetists declined by one practitioner over the previous year.

Whether entrants will replace exits in future years will be influenced by the number of practitioners in the pipeline and the age profile of the current dental prosthetist workforce. The estimates of the domestic pipeline suggest that the number of new entrants is likely to be around 12% of students registered in the previous year (equating to around 20 to 25 per year on current numbers, although this may be an underestimate). The average age of currently registered dental prosthetists is 51.4 years and around 45% are aged 55 years or older, suggesting that the exit rate is likely to be higher than the recent average rate. In combination, these factors suggest that the number of registered dental prosthetists will decline over coming years.

Dental hygienists, dental therapists and oral health therapists

Based on Ahpra unpublished data on lapsed registrations, the rate of attrition from the divisions of dental hygienist, dental therapist and oral health therapist appears to be 2% per year. On 2019/20 registration figures, this would equate to around 100 practitioners leaving the profession in a year.

According to the National Health Workforce Survey data, more than one-third (36%) of the current workforce in these divisions intends to cease practising within 10 years, and more than one-third (36%) intend to work more than 20 years.

While those intending to cease practising within 10 years are predominantly in the older age brackets, approximately 18% are in the under-35 age group. This is broadly consistent with the lapsed registration data, which suggests that since the National Scheme began in 2010, 17% of dental hygienists, dental therapists and oral health therapists who allowed their registration to lapse were aged under 35 years. Some 50% were aged 55 years or older.

Based on these intentions and current registration data, it could be expected that around 830 currently registered practitioners will no longer be working in five years' time, and around 1,780 will not be working in 10 years' time. Not surprisingly, these are expected to be mostly in the older age brackets.

The dental hygienist and dental therapist workforce grew at an average of 3.91% per year from 2015/16 to 2019/20. If this growth rate and the estimated attrition rate of 2% per year were to continue to apply to 2025, it could be expected that the number of registered practitioners in these divisions would increase from 4,937 in 2019/20 to somewhere around 5,980 by 2024/25.¹⁴

¹⁴ March quarter statistics for 2020/21 suggest that this growth rate may be conservative

Based on the figures above, the trend is towards new entrants being sufficient to replace exits and registrants in these divisions (presumably most likely in the division of oral health therapist) are likely to increase over coming years.

Demand – employment projections, workforce shortages and demand drivers

Employment projections

The DESE publishes employment figures and projections (derived from the ABS Labour Force Survey [20, 21]) for various occupations, as categorised under the ANZSCO structure. For the dental profession, the relevant categories are '*Dental practitioner*' (which includes dentists and dental specialists) and '*Dental Hygienists, Technicians and Therapists*'. The latter group includes dental hygienists, dental therapists, dental prosthetists and dental technicians. The inclusion of dental technicians makes the employment figures more difficult to interpret as they include both regulated and unregulated practitioners. As noted previously, oral health therapists are not separately identified in the ANZSCO structure but are considered a speciality of dental therapist.

Dentists and dental specialists

Projections published by DESE estimated the employment of dentists at 14,300 as at May 2019 [22]. The figure constitutes around 83% of dentists who held a form of practising registration at 30 June 2019 (the closest quarter to the DESE estimates). The 2019 National Health Workforce Survey (conducted in November 2019) [7] indicated that 88% of dentists were employed, which is broadly consistent with the DESE figure.

In April 2021, DESE updated the employment figures and growth forecasts [20]. Employment at November 2020 was reported to be 11,200 [20] – a drop of 3,100 from May 2019, presumably reflecting the impact of the COVID-19 pandemic. Employment figures published by the National Skills Commission (NSC) [23], based on the ABS Labour Force survey, put the employment of dental practitioners at 15,719 in February 2021, suggesting substantial recovery.

In its Skills Priority List (June 2021) [15], the NSC identified future demand for dentists and dental specialists as 'moderate'.

Dental prosthetists, dental hygienists, dental therapists and oral health therapists

No workforce projections specifically for dental prosthetists, dental hygienists, dental therapists or oral health therapists have been identified, although the DESE [24] projection for the ANZSCO category of 'Dental Hygienists, Therapists and Technicians' is for five-year employment growth of 6.6% to November 2025. The government website Job Outlook forecasts 'moderate growth' for all individual occupations in this ANZSCO category. Based on historical growth rates, it seems likely that much of this growth will be in the oral health therapist workforce. A growth rate of 6.6% generalised to other occupations, particularly dental prosthetists, seems highly unrealistic.

In the Skills Priority List [15], the NSC forecasts strong future demand for the occupations of dental hygienist, dental prosthetist and dental therapist. As this is based on the ANZSCO structure, oral health therapists would be included in the dental therapist assessment.

Workforce shortage

Dentists and dental specialists

Historical workforce shortage ratings from 1986 to 2018 show that, over that period, dentists and dental specialists were in shortage from 2003 to 2009 inclusive [25]. However, from 2010 to 2018, there were no years in shortage.

According to a DESE report in 2019, employers in all jurisdictions except NSW had trouble recruiting dentists and filling vacancies.¹⁵ It was reported that 30% of employers attracted suitable candidates but could not reach agreement on salary and hours worked.

¹⁵ This is a labour market rating report in relation to dentists from May 2019. It is no longer available and labour market shortage assessments are now published by the National Skills Commission.

The number of applicants for jobs in metropolitan areas was almost four times the number for positions in non-metropolitan areas (11.4 applications for positions in metropolitan areas, compared with 2.9 applications per vacancy in non-metropolitan areas). Where applicants were deemed unsuitable, it was generally on the grounds of lack of experience (including recent graduates).

In its Skills Priority List, the NSC has assessed the occupation of dentist as 'no shortage' except in the NT, with moderate future demand.¹⁶ The occupation of dental specialist is assessed as 'no shortage' anywhere in Australia, with moderate future demand.

Dental Prosthetists, dental hygienists, dental therapists and oral health therapists

Historical workforce shortage ratings published by DESE have no data relating specifically to dental prosthetists, dental hygienists, dental therapists or oral health therapists.

The NSC Skills Priority List identifies the occupations of dental prosthetist and dental hygienist as 'no shortage' anywhere in Australia, with strong future demand.^{17,18} The occupation of dental therapist (assumed to include oral health therapist) is assessed as 'shortage' in the NT only, and strong future demand.¹⁹

Demand drivers

Factors that could be expected to affect demand for dental and oral health services include (but are not limited to) the growth and ageing of the population, increases in consumer expectation, improvements in oral health and increases in patients with complex needs.

Population growth

The expected growth and ageing of the Australian population will put significant pressure on the health workforce. According to ABS population statistics [12], under conservative assumptions, the Australian population will reach around 36.1 million people by 2050, with more than 1.3 million people aged over 85 years [12].²⁰

On a simple analysis, the current average annual growth rates for dentists and oral health therapist workforces, were they to continue, would appear to be sufficient to maintain current levels of access to services as the population grows and ages. However, for dental prosthetists, the low historical growth rates, were they to continue, would likely result in a considerable decline in access.

This assessment is based on several assumptions and takes no account of other factors that may influence supply and demand over time.

Ageing

There are well established associations between oral health and age. The National Study of Adult Oral Health 2017-18 (the Study) [26] found that many issues of oral health are associated with age, with people aged 75 and over more likely to have complete tooth loss, fewer than 21 teeth and with dentures, and to experience periodontal disease. The Study also found that there have been marked improvements in oral health in Australia over the last 30 years. For adults aged 75 years or older, the proportion of people with fewer than 21 teeth dropped from 79.8% to 45.6% and the percentage of adults with dentures dropped from 21.5% to 11.3%.

¹⁶ As of 2023, the NSC Skills Priority List has changed and assessed that there is dentist shortage nationally, except in Queensland, which has a regional shortage. Accessed December 2023 <https://www.jobsandskills.gov.au/data/skills-priority-list?code=252312>.

¹⁷ As of 2023, the NSC Skills Priority List has changed and assessed that there is a dental prosthetist shortage nationally. Accessed December 2023 <https://www.jobsandskills.gov.au/data/skills-priority-list?code=411212>.

¹⁸ As of 2023, the NSC Skills Priority List has changed and assessed that there is a dental hygienist shortage nationally. Accessed December 2023 <https://www.jobsandskills.gov.au/data/skills-priority-list?code=411212>.

¹⁹ As of 2023, the NSC Skills Priority List has changed and assessed that there is a dental therapist shortage nationally. Accessed December 2023 <https://www.jobsandskills.gov.au/data/skills-priority-list?code=411211>.

²⁰ Assumptions applied to data set – low fertility, medium life expectancy, medium net overseas migration

The NSW Government, in its *Oral Health 2020* report [27], identified that as edentulism has decreased in older adults, a range of chronic degenerative dental disorders has emerged, such as tooth wear, erosion, fractures and infection. The report argues that a consequence of increased tooth retention is an increase in the proportion of clients in this age group with complex needs, resulting in increased demand for general, periodontal and prosthodontic care.

Issues associated with dental and oral health care available and provided to older people were explored in the *Royal Commission into Aged Care Quality and Safety* [28] (see below).

Disability

According to the ABS, in 2018 there were 4.4 million people with disability in Australia (17.7% of the population) [11]. People with disability are more likely to have complex and multiple health conditions including oral and dental than people without disability. This issue is being explored through the *Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability* [29] (see below).

Further, the prevalence of disability increases with age. In 2018, almost 12% of people aged 0 to 64 were identified as having disability, compared with almost 50% of those 65 and over. Of all people with disability, 44.5% were aged 65 and over.

Policy developments and considerations

There is significant public interest – as reflected in recent and current Royal Commissions – in the standard of care provided to vulnerable populations. The evidence heard by the Royal Commissions has raised issues relating to the provision of oral and dental care.

The COAG National Oral Health Plan 2015 – 24 [30] provides useful background and context to the issues coming out of the Royal Commissions.

COAG National Oral Health Plan 2015–2024

The COAG Oral Health Plan 2015–2024 (the COAG Plan) [30] was endorsed by all health ministers in August 2017 and expresses an overarching objective of setting national direction and providing a framework for collaborative action in oral health over 10 years. It recognises the shared responsibilities of governments for improving oral health and reducing inequalities in oral health status across Australia.

The COAG Plan notes that policy and program changes made since 2004 (in response to concerns about workforce shortages) have increased undergraduate training and the supply of dentists. When the plan was developed, supply was expected to exceed demand to 2025.

The COAG Plan asserts that, with supply issues addressed, effort should be directed to addressing issues with workforce distribution. Inequalities are identified in geographic distribution, public/private practice and practitioner skill in serving the needs of priority populations. Priority populations are identified as low socio-economic and other socially disadvantaged people, Aboriginal and Torres Strait Islander Peoples, people in regional and remote areas and people with disabilities. Special needs populations are identified to include people with lived experience of mental ill health, disability, complex medical conditions, and frail older people.

The COAG Plan identifies several foundation areas across four priority populations, one of which is workforce.²¹ The foundation principle for workforce is ‘...workforce for oral health is of an appropriate composition and size and is appropriately trained and distributed (p12)’.

Regulatory barriers, funding barriers, education and training, new technologies and partnership models are all identified as factors to be considered in determining how to address issues of distribution. A range of specific strategies are articulated in the COAG Plan and includes enhancing the skills and competencies of the workforce to meet the needs of priority populations, enhancing programs to recruit

²¹ The other foundation areas are: Oral Health Promotion; Access; System Alignment and Integration; Safety and Quality; and Research and Evaluation.

and retain the workforce in rural areas and implementing funding mechanisms that support flexible service delivery.²²

The COAG Plan asserts that the training and development of the workforce must reflect the competencies required to address the needs of the priority populations, and efficiently use the skills of the whole oral health workforce. It states that it is important to ensure that the current and future workforce can work effectively in multidisciplinary teams, not only with other health professionals but also providers such as social workers and interpreters. The COAG Plan calls for additional development of the specialist workforce, and education and support to general dentists to increase willingness and capacity to provide services to priority populations.

Most states and territories have developed state-based oral health plans [31-33], drawing on and aligned with the COAG Plan. These plans consistently identify an appropriately skilled and distributed workforce as a foundation principle and reinforce that priority populations are the socially disadvantaged and low SES, Aboriginal and Torres Strait Islander people, those living in regional and remote areas and those with special needs.

Royal Commission – Aged Care Quality and Safety

The *Royal Commission – Aged Care Quality and Safety* (the AC Commission) identified a number of significant issues in the aged care sector relating to oral and dental healthcare. The AC Commission heard evidence relating to substandard care, including inattention to oral health leading to significant issues such as rotting teeth, difficulties eating, pain and discomfort. The AC Commission identified that older people are more likely than others to have poor oral health, with many unable to afford private services or have reduced capacity to manage oral hygiene routines, contributing to impairment and reduction in quality of life (such as ability to eat or socialise). With respect to residential care, the AC Commission heard that oral health was not a priority, due to lack of staff time and training and lack of access to appropriately trained oral health professionals.

The AC Commission found that half the people in residential aged care do not get an oral health assessment on entry, that a large number of facilities do not have arrangements in place for dental practitioners to visit and that there are no pathways for referral or treatment.

- Recommendation 19 is an urgent review of the Aged Care Quality Standards and that they are amended as appropriate to, amongst other things, require best practice oral care.
- Recommendation 60 is the establishment of a new Senior Dental Benefits Scheme, which would fund dental care for people in residential aged care and people in the community receiving the age pension or qualifying for a seniors health care card. The Senior Dental Benefits Scheme would be limited to dental services necessary for functional dentition and to maintain and replace dentures.

The Government has made several announcements since receiving the AC Commission's report [34]. In March 2021, the Government announced a review of the Aged Care Quality Standards to be completed by the end of 2022. The review will address the issues raised in Recommendation 19, including oral care.

In its formal response to the AC Commission's findings, released at the time of the 2021/22 Federal Budget in May 2021, the Government stated that Recommendation 60 to establish a Dental Benefits Scheme is:

'subject to further consideration by 2023. The delivery of adult public dental services is currently a state and territory responsibility for which the Australian Government provides additional financial support through a National Partnership Agreement. The Australian Government also provides funding support for dental procedures conducted for public hospital admitted patients and outpatients under the National Health Reform Agreement (p46). [28]

On 10 June 2021, the Government announced a one-year extension to the National Partnership Agreement on Adult Public Dental Services [35]. The extension provides \$107.8 million for services to around 180,000 additional public dental patients across Australia. This is in addition to funding of \$190

²² Not elaborated but expressed as "...regulatory barriers to a flexible approach to workforce utilisation (p42)".

million per year provided to states and territories by the Commonwealth for dental services under the National Health Reform Agreement.²³

Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability

The *Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability* (the Commission) [29] was established in April 2019 to enquire into and report on issues relating to the care and protection of people with disability. It is expected to deliver its final report by September 2023.

While acknowledging the role of all regulated dental practitioners, the Commission's interest appears primarily in dentists providing services to the community. The Commission has heard evidence that problems of oral and dental health are significantly more common amongst people with disability, and access to appropriate dental care is limited by availability of suitably trained dentists, affordability of services leading to reliance on public services, and lack of integration of dental care with other disability services and supports.

As part of its public hearings program, the Commission convened a dental panel, comprising key dental representatives.²⁴ The panel was questioned on a range of propositions put forward by Counsel Assisting, relating primarily to the education and training of dental practitioners. As part of this discussion, the small number of practitioners who have trained as specialists in special needs dentistry was highlighted, and attributed to factors including:

1. the need for association with major hospitals in order to access appropriate clients and facilities
2. inability to undertake training in private settings due to compliance costs and lack of access to appropriate equipment and resources
3. difficulties recruiting teaching staff, and
4. high fees for students, with employment outcomes uncertain and limited to the public sector.

It was asserted in the hearing that the small number of registered specialists in special needs dentistry means that most dental services provided to people with disability are provided by general dentists, and that this underscores the need to better train dentists in general programs to provide services to people with disability. The ADC undertook to consider the issues in its review of competencies. The revised competencies include new definitions and significant changes to the expectations of practitioners to work with carers, and care teams, as well as changes to communication competencies to better involve people with disability in deciding and determining the care they receive. The revised competencies will take effect in 2023.

In written submissions, it was suggested that a key deficit in the current dental workforce is understanding of the disability sector and its structures, such as legislation governing the activities of support workers and decision-making protocols and structures.²⁵ It has also been suggested that enhancing oral health literacy of carers and disability support workers is important, as is establishing a pathway that effectively connects the disability sector with the dental workforce to enhance outcomes for people with disability.

What the data says – dentists providing care to special needs populations

At 30 June 2020, there were 20 dentists registered as specialists in the area of special needs dentistry. A review of National Health Workforce Survey [7] data over the full period of its collection (2013 to 2019) shows that the number of dentists involved in providing care to people requiring special needs dentistry has not grown appreciably over the period and there are indications of a decline in general dentists providing services to this group.

²³ The Government also provides funding through the Child Dental Benefits Schedule and the Private Health Insurance Rebate

²⁴ Australasian Council of Dental Schools, Australian Dental Association, Australian Dental Council and the Dean of a Dental School

²⁵ Disability and Oral Health Collaboration (DOHC) submission

In 2013, there were 15 special needs dentistry specialists who provided information on job area. Of these 15 practitioners, 12 identified special needs dentistry as their primary work area and three identified general dental practice as their primary work area. In addition to these specialists, 55 non-specialist dentists identified special needs dentistry as their primary work area.

In 2019, 17 special needs dentistry specialists responded to the National Health Workforce Survey and 16 who provided information on job area. Of these, 15 were in the labour force and all 15 reported special needs dentistry as their primary work area. In addition to these practitioners, 34 non-specialists reported special needs dentistry as their primary work area.

It is possible that the number of dentists providing services to people requiring special needs dentistry is higher than the data suggests, as some respondents working in public clinics may have identified their primary work area as public health, rather than special needs. For example, in each year of the National Health Workforce Survey, there was a large number of non-specialist dentists who identified public health dentistry as their primary work area. In 2019, this figure was 301. As public health dentistry is a very small speciality (15 practitioners at June 2020), it would appear that National Health Workforce Survey respondents are not interpreting the category of public health dentistry as a specialist category but rather as something different, such as employment in the public sector. If this is the case, and noting that public services are key providers for people accessing special needs dentistry, it is likely that there is a higher number of general dentists who are providing services to priority groups but it is not possible to quantify the figure with any precision. Consideration could be given to requesting that the Department of Health review the National Health Workforce Survey questions in relation to job area, with a view to clarifying interpretation and the nature of data collected to enable a clearer picture of the special needs dentistry workforce.

National Disability Insurance Scheme (NDIS)

The NDIS does not cover treatments and services that are the responsibility of other systems (such as the health, aged care or compensable systems). As governments fund public dental services through their health portfolios, dental services are deemed covered by the health system and therefore not funded by the NDIS.

However, the NDIS funds a range of supports for people with disability, including assistance with daily personal care activities. Oral hygiene is identified as an area of personal care support that is funded through the NDIS. Disability support workers are a key workforce group funded to provide these services.

Some of the evidence presented to the Commission suggests that the NDIS (i) is seen by some to have altered professional networks and structures, including in relation to student experience and training options in the field of disability, and (ii) holds potential to support better oral health for people with disability if personal care supports are appropriately used.²⁶

In its submission to the Commission, the Disability and Oral Health Collaboration (DOHC) argued that improvements in both (i) oral health literacy of carers and support workers, and (ii) dentist knowledge of the disability sector and structures are necessary to improve oral health care to people with disability. It advocates establishing a pathway that connects support workers and the dental workforce.

Higher education changes

As part of higher education changes that took effect on 1 January 2021, the student and government contributions to the cost of tertiary education have changed for all disciplines, including dental studies [36]. The changes relate to the funding of domestic students through Commonwealth supported places (CSPs).

The stated intentions of the reforms are to better align government funding with the costs of delivering education and to direct funding to areas of national priority, specifically areas that have been identified by

²⁶ See for example evidence of the Australian Health Professions Association (AHPA) at Public Hearing 4 that clinical training for many professions occurs in the public hospital system and that opportunities to train in the area of disability services have reduced significantly since the commencement of the NDIS which devolved service provision to external providers. Further, it is argued that private practices have difficulty offering student placements as they are time-consuming, expensive and there is little or no support.

the government as 'jobs of the future'. Health care disciplines have been identified as areas of priority and as such are specifically targeted by the reforms.

Under the reformed arrangements, the student and government contributions have changed, effective from 1 January 2021. For some disciplines, the student contribution has decreased while for others it has increased or remained roughly the same. The expectation is that reducing student contributions will 'incentivise' students to enrol in these courses (which it identifies as having strong future job prospects) and discourage enrolment in other courses. In addition, there have been changes to the amount of the government contribution – increasing for some disciplines and decreasing for others. The rationale for changes to the government contribution is its assessment of the cost of delivery of courses.

Changes have also been made to the conditions surrounding government funding, so that providers can use funds flexibly to respond to student demand. The higher education changes also provide for the creation of a National Priorities and Industry Linkage Fund (NPILF) of \$900m to encourage universities to collaborate with industry to design courses that equip students with job ready skills and experience.

For dental studies, the student contribution amount has marginally decreased (<1%) and the government contribution has increased, producing a net effect for education providers of an increase of around 10%.

Given that there is no appreciable change to the student contribution, it seems unlikely that the changes will incentivise student enrolments in dental studies. The increased government contribution and the establishment of the NPILF may potentially provide opportunities to address specific issues, such as strengthened engagement of students with disability service providers, to increase dental practitioners understanding of the disability sector and better prepare dental graduates to meet the needs of patients with disability.

Concluding comments

Across all divisions, the dental profession has shown moderate growth and changing gender distribution over the period 2015/16 to 2019/20.

Dentistry appears generally stable in terms of the balance of entrants and exits, students in the pipeline and domestic training. However, the specialist workforce appears to be ageing and some specialties potentially declining. The specialty with most obvious workforce pressure is special needs dentistry, with small numbers registered in the specialty, evidence of significant current and expected future demand, and government concern that practitioners' skills in working with special needs populations are prioritised in workforce development. Enhancing the capabilities of non-specialist dentists to work in the area of special needs to improve access of priority populations to appropriate dental and oral health care is an articulated strategy and one that seems likely to receive continued attention.

The dental prosthetist workforce is small, growing at a slower rate than other dental divisions, with a higher attrition rate that is likely related to its ageing workforce. While there are students in the pipeline, data is scant and it is difficult to assess the extent to which this workforce is under pressure. Relevant factors include (but are not limited to) the extent to which improvements in population oral health and changes in population characteristics translate into demand for prosthetist services (compared to other dental services), and the extent to which prosthetic services are being performed by dentists and dental technicians. Further work may be required to better understand this workforce.

The oral health therapist workforce has shown the fastest rate of growth over the period.

Concerns about a 'maldistribution' of the dental workforce – both in terms of geography and public/private employment – are not new and addressing distributional issues is an expressed priority of both Commonwealth and state and territory governments. The available data and the evidence presented in current and recent public inquiries suggest that the issues of distribution and access continue to exist. Further work could be considered regarding whether there is any scope within the regulatory arrangements to enhance these access objectives.

Useful sources

Registration data

Annual Reports and supplementary tables - 2015-16 through 2019-20

www.ahpra.gov.au/Publications/Annual-reports.aspx

Overseas trained practitioners by year, profession, gender and state from 2014-15 to 2019-20.

www.AHPRA.gov.au/about-AHPRA/what-we-do/statistics.aspx#previous-requests.

Dental Board of Australia – Quarterly statistics June 2015 through December 2020.

www.dentalboard.gov.au/About-the-Board/Statistics.aspx

Unpublished data made available through research unit

Skills and employment data

Australian Industry and Skills Committee – Dental Industry Insights Report

<https://nationalindustryinsights.aisc.net.au/industries/health/dental>

National Centre for Vocational Education Research (NCVER) – VET data.

www.ncver.edu.au/research-and-statistics/data

Parliamentary processes

Joint Standing Committee on Migration. Final Report of the Inquiry into Australia's Skilled Migration Program (August 2021).

https://parlinfo.aph.gov.au/parlInfo/download/committees/reportjnt/024680/toc_pdf/FinalReportoftheInquiryintoAustralia'sSkilledMigrationProgram.pdf;fileType=application%2Fpdf

Senate Committee Inquiry into the Higher Education Support Amendment (Job-Ready Graduates and Supporting Regional and Remote Students) Bill 2020

www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/JobReadyGraduates/Report

Other

Doris J. Stiefel, DDS, MS. Dental Care Considerations for Disabled Adults. Spec Care Dentist 22(3)26S-39S, 2002

<https://paul-burtner.dental.ufl.edu/files/2012/05/Disabled-Adults.pdf>

National Advisory Council on Dental Health – Final Report February 2012

www1.health.gov.au/internet/main/publishing.nsf/Content/final-report-of-national-advisory-council-on-dental-health.htm

National Partnership on Public Dental Services

www.federalfinancialrelations.gov.au/content/npa/health/national-partnership/Adult_Public_Dental_Services_NP_2017-4.pdf

Productivity Commission – Report on Government Services

www.pc.gov.au/research/ongoing/report-on-government-services

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