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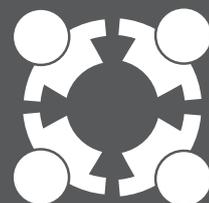
INTEGRITY



BOLDNESS



TEAMWORK



Dental

**INDUSTRY REFERENCE COMMITTEE
INDUSTRY SKILLS FORECAST**

Refreshed April 2017

Contents

Executive summary	3
A. Administrative information	5
B. Sector overview	5
C. Employment	10
D. Skills outlook	16
E. Other relevant skills-related insights for this sector	18
F. Proposed Schedule of Work: 2016-17 – 2019-20	19
G. IRC sign-off	20
References	24

Executive summary

The Dental industry provides oral health care services to the Australian population through both the public and private sector, with businesses ranging in size from small to large. The dental workforce is made up of both registered and non-registered practitioners with the vast majority operating within major Australian cities. Demand for oral health care in Australia is expected to grow in response to population growth, changing demographics, improved oral health awareness and advanced procedures and technologies. Increases in the numbers of dental practitioners being trained and any increases in government funding of dental services will also increase demand.

The Dental Industry Reference Committee (IRC) is responsible for ensuring nationally recognised dental qualifications, packaged within the HLT Health Training Package, deliver the skills and knowledge required to equip the Australian dental industry with a highly skilled workforce for both now and into the future. IRC membership is comprised of peak industry organisations, employers, industry professionals and training providers. These representatives work collaboratively with the Australian Industry and Skills Committee (AISC) and SkillsIQ to inform ongoing training package development priorities.

The Dental IRC's scope is inclusive of the following occupations:

- Dental hygienists;
- Dental laboratory assistants;
- Dental prosthetists;
- Dental technicians; and
- Dental assistants.

The Dental IRC commits to thorough and inclusive national consultation to ensure training package products under its remit are reflective of current industry skills needs and provide opportunities for workforce development that actively contributes to the variability and productivity of the sector. Recognition is given to the need for training package related decisions to be made based on appropriate levels of industry engagement and input.

Further, the IRC acknowledges the COAG Industry and Skills Ministers' priorities and will utilise consultation activities, through the support of SkillsIQ, to gain a national perspective on:

- opportunities to identify and remove obsolete training package products from the system
- industry expectations for training delivery and assessment to be documented within Implementation Guides
- opportunities to enhance portability of skills from one related occupation to another
- opportunities to remove unnecessary duplication within the system and create training package products that may have application to multiple industry sectors
- opportunities for the development of skill sets.

Where available the IRC will seek and maximise opportunities to work collaboratively with other IRCs.

This Industry Skills Forecast proposes a schedule for the ongoing review of relevant training package products to inform the development of the four-year rolling National Schedule. An industry analysis of both new and emerging workforce skills needs of the sector has informed this plan.

Sector analysis and industry consultation indicate that the sector is, and will continue to be, impacted by a number of challenges and opportunities, including:

- health expenditure, where individuals absorb the majority of cost associated with oral health care;
- consumer-directed care models that provide the consumer with greater choice when selecting a health care provider;
- increases in the supply of dental practitioners;
- changes to government policy and programs;
- priority populations that face significant barriers when accessing oral health care;
- digital technologies that are redesigning and enhancing the way oral health services are provided; and
- increased competition from global providers and laboratories.

In addition to broad challenges and opportunities, the sector has identified the following factors as having direct impact on the composition and skills needs of the workforce:

- attraction and retention of the dental workforce, particularly within rural and remote communities;
- the changing nature of duties and expanding job roles;
- management and leadership capabilities, particularly clinical leadership; and
- serving a customer base with increased expectations and demands.

The Industry Skills Forecast identifies a number of international and national trends in workplace design that will impact the skills needs of the sector. This information, along with industry-identified skills priorities, will directly inform the coming review of relevant training package products.

Information contained within this Industry Skills Forecast has been sourced by a variety of methods, including:

- desktop research, to develop an understanding of existing research and views on skill requirements in the sector;
- an industry workforce survey which was available to all stakeholders across all industries; and
- consultation with the IRC, in order to confirm that the information is both valid and reflects industry views appropriately.

Training products included in this Industry Skills Forecast were last reviewed in 2015 and released on the national register, training.gov.au, on 8 December 2015. A temporary extension to RTO transition requirements was agreed to by the Australian Government Minister for Vocational Education and Skills and State and Territory Skills Ministers. As a result, RTOs are not required to have the updated qualifications on scope until 8 June 2017.

To allow the training products to be properly implemented and tested within the system, the training products in this sector have been scheduled for review in years three and four, with the exception of the Diploma of Dental Technology. This qualification has been included in year

one based on the industry-identified need for additional dental technology components to be included as a priority.

The development of a new Advanced Diploma of Oral Health has been proposed in year three of the Proposed Schedule of Work based on the industry identified need for a nationally recognised qualification, packaged within the HLT Health Training Package, that reflects the role of dental hygienists. The structure of this qualification would be further explored during the development of a Case for Change, pending approval.

A. Administrative information

Name of IRC

Dental Industry Reference Committee

Name of Skills Service Organisation (SSO)

SkillsIQ Limited (SkillsIQ)

This document details the proposed four year schedule of work from 1 July 2016 to 30 June 2020 as agreed between the Dental IRC and SkillsIQ.

This version of the Industry Skills Forecast was refreshed in April 2017.

About SkillsIQ

As a Skills Service Organisation (SSO), SkillsIQ is funded by the Department of Education and Training to support its allocated IRCs, which are responsible for the development and maintenance of the following training packages:

- Community Services
- Health
- Local Government
- Public Sector
- Floristry
- Hairdressing and Beauty Services
- Funeral Services
- Retail Services
- Sport, Fitness and Recreation
- Tourism, Travel and Hospitality.

B. Sector overview

Within the Australian and New Zealand Standard Industrial Classification (ANZSIC), Dental Services are defined as those businesses engaged in the practice of general or specialised dentistry with the primary purpose of delivering improved oral health.¹ Oral health care is provided in both the public and private sectors with the majority operating within the private sector. In 2012, private practice was the most commonly-reported work setting, employing 77.3% of dentists. In comparison, 22.7% were reported as working in the public sector.² Public sector services are co-ordinated through State and Territory health providers inclusive of public hospitals and community dental clinics.

The dental industry predominantly comprises small-scale private practices with no one company holding complete market share. The majority of practices operate as stand-alone establishments but there has been a recent trend towards corporatisation within the sector.

Practice locality is largely driven by population distribution, profile of the population and the level of demand for higher level service provision. Areas with higher-than-

average incomes, typically urban locations, experience a greater presence of dental services and, in some instances, are over-represented. The contrary is true for many rural and remote locations where these populations have reduced access to dental services.

Both registered and non-registered healthcare professionals make up the dental workforce.³ Registered occupations in the dental health sector are:

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

The non-registered dental workforce is made up of:

- Dental technicians*
- Dental assistants*^
- Dental laboratory assistant*

* Denotes occupations that directly align to nationally-recognised dental qualifications within the HLT Health Training Package.

^ Dental assistants who have completed a Certificate IV in Dental Assisting (radiography) must hold license to expose radiographs with the Australian Environmental Protection Agency.

In addition, there are a range of broader health and community service workers providing some basic oral health care services and referrals, some of whom may have undertaken specific oral health care training available through nationally recognised training products.

Nationally Recognised Dental qualifications (as at April 2017)

- HLT35015 Certificate III in Dental Assisting
- HLT35115 Certificate III in Dental Laboratory Assisting
- HLT45015 Certificate IV in Dental Assisting
- HLT55115 Diploma of Dental Technology
- HLT65015 Advanced Diploma of Dental Prosthetics.

Registered Training Organisations' Scope of Registration

The following table (Table 1) indicates the number of Registered Training Providers (RTOs) with dental qualifications on scope. This data is current as at April 2017, per the listing on the National Register of VET at www.training.gov.au.

TABLE 1. NUMBER OF RTOS WITH QUALIFICATION ON SCOPE

Code	Qualification name	No of RTO on scope
HLT35015	Certificate III in Dental Assisting	33
HLT31812	Certificate III in Dental Assisting (superseded)	35
HLT35115	Certificate III in Dental Laboratory Assisting	6
HLT32712	Certificate III in Dental Laboratory Assisting (superseded)	6
HLT45015	Certificate IV in Dental Assisting	24
HLT43012	Certificate IV in Dental Assisting (superseded)	29
HLT55115	Diploma of Dental Technology	14
HLT50512	Diploma of Dental Technology (superseded)	14
HLT65015	Advanced Diploma of Dental Prosthetics	3
HLT60412	Advanced Diploma of Dental Prosthetics (superseded)	6

Source: Training.gov.au. RTOs approved to deliver this qualification. Accessed 13th April 2017

National peak bodies and key industry players

The following list represents a range of organisations that perform a variety of key roles in this sector. These organisations and their networks are well-placed to offer industry insights at the time of training package review. Industry engagement will aim to include a broad and inclusive cross-section of stakeholders across public and private sectors, large and small employers and geographical locations.

- Government departments and agencies, such as
 - Health Department in each State and Territory
 - Commonwealth Department of Health
- Peak and industry associations, such as
 - Australian Dental Association
 - Australian Dental and Oral Health Therapists Association
 - Australian Dental Prosthetists Association
 - Dental Assistants Professional Association
 - Dental Hygienists' Association of Australia
 - Oral Health Professionals Association
- Employee associations, such as
 - Australian Nursing and Midwifery Federation
- Regulators, such as
 - Australian Dental Council
 - Australian Health Practitioner Regulation Agency
 - Dental Board of Australia
 - Health Care Complaints Entities in most jurisdictions
 - Australian Commission on Safety and Quality in Health Care
- Large employers, such as
 - Health Insurers (provider arms)
 - Defence
 - Public Dental Services (represented by National Dental Directors)
- Employers both large and small across metropolitan, regional, rural and remote areas
- Registered training providers both public and private.

Key statistics

- Dentistry is a male-dominated profession. Dental therapists, dental hygienists and oral health therapists were predominantly women in 2012 (96.9%, 94.5% and 84.7% respectively).⁴
- In 2012, employed dental prosthetists, dental therapists, dental hygienists and oral health therapists were aged 49.1, 46.4, 37.4 and 31.0, on average, respectively.⁵
- Dental practices have the largest presence within NSW, with 35.3% operating in this state. 0.5% operate in the Northern Territory, representing the smallest presence within Australia
- Industry revenue is projected to rise at a steady compound annual rate of 2.4% over the five years through 2020-21.⁶

Challenges and opportunities in the sector

Health expenditure

Unlike other health services, the largest portion of dental expenditure is funded by the individual. In 2013-14, individuals were responsible for \$5,336 million of the total \$8,914 million spent on dental services (59.9%) compared to only 17.8% of total health funding.⁷ Australia's National Oral Health Plan 2015-2024 reports that in 2012-13 almost one in five (18.8%) Australians aged 15 years and above either delayed or didn't seek dental treatment due to cost.

As personal expenditure rises dental services are increasingly considered a non-essential spend. In turn this has caused the sector to become more contestable, with enterprises having to compete harder to attract or retain clients. This results in:

- a need for increased efficiency
- new or changing job roles and specific skills
- and increased scope of support roles.

Organisations are already responding to these changes by reviewing their business and workforce models and changing the skill mix of their workforce.⁸

Government policy and programs

The Australian Government has funded a number of initiatives and programs that aim to support improved dental outcomes. Numerous examples of such programs exist, including the Child Dental Benefits Schedule, providing financial support for basic dental services for children aged 2-17 and the National Partnership Agreement on Adult Public Dental Services, providing \$155 million, during 2015-16, for additional services to approximately 178,000 adult public dental clients. Australian Government dental initiatives are typically delivered on a non-ongoing basis, with the above two noted programs due to cease in 2016.

By offering grants through the Dental Relocation and Infrastructure Support Scheme, the Australian Government is also attempting to encourage more dentists to set up a practice in regional and remote areas.

Australia's National Oral Health Plan 2015-2024 outlines plans to ensure all Australians have access to, and experience, good oral health. The implementation of key strategies will require the engagement of broader health and community care providers such as those employed within early childhood education, residential aged care and disability settings.⁹ With a strong preventative oral health focus, the National Oral Health Plan creates a range of opportunities within the training environment.

Consumer-directed care

Consumer-directed funding will have a vast impact across the health and community services sectors, influencing how services are delivered and in turn, workforce requirements. Consumer-directed funding models aim to drive improvements in efficiency and quality of service for clients. These improvements are driven by giving clients the power, as consumers, to select their provider of choice and by promoting competition between providers.

It is imperative that the workforce has the ability to meet the demands of consumers as these changes are rolled out. As a result, it is seen as critical that the impact of these changes on workforce requirements are better understood, to identify synergies across sectors and inform targeted training package development.

Priority populations

Australia's National Oral Health Plan 2015-2024 identifies groups of the population that face the greatest barriers when accessing oral health care, and those at highest risk of poor oral health. These groups require additional, targeted strategies to overcome inequalities and, as a result, have been deemed priority populations. Priority populations include:

- People who are socially disadvantaged or on low incomes
- Aboriginal and Torres Strait Islander people
- People living in regional and remote areas
- People with additional and/or specialised health care needs.¹⁰

The National Oral Health Plan, in its implementation, aims to protect and improve the oral health of all Australians with a particular focus on the needs of these groups. The plan highlights that the dental workforce plays a fundamental role in the achievement of its aims and the facilitation of community oral health needs. Specifically, it details that the workforce:

- be of an appropriate size to meet need;
- utilises an appropriate mix of skills across the oral health and non-oral health workforce;
- is equitably distributed across all regions and sectors; and
- has a strategic and planned approach to meeting changing needs.¹¹

Digital technologies

Social media and online engagement strategies are now an integral component of customer engagement efforts. Social media is key because marketing is no longer a one-way communication from business to customer: rather, it is about a broader notion of 'engagement' or 'conversations' in order to build relationships with clients. Social media, when embraced, acts as a means for interacting with clients to provide product, services and oral health care information.

The uptake of social media means highly-developed digital literacy skills are essential. Practices need to not

only possess the skill for engaging online but understand the potential reach and benefit of social engagement. In addition, the workforce must have the ability to manage social media crises and problems that have the potential to cause damage to business reputations.

Digital solutions such as 'tele-dentistry' are emerging as innovative models that provide improved access to care for lower income and institutionalised populations. While offering a range of service delivery opportunities for all dental practitioners, this digital solution has relevance to the provision of preventive and minimal intervention services. Accompanying the provision of these types of services, digital technologies are increasing the utilisation of electronic health records, which enable the sharing of information between practitioners.¹²

Laboratory services are also rapidly moving to digital technology design and construction methods which require skills development for the use of such technologies in laboratories. Currently, there is a lack of available training that supports these skills needs.

The Dental IRC has agreed that gaps exist within the Diploma of Dental Technology and has identified a number of units of competency that require review, and further development, to reflect industry skills needs. Further, the IRC believes digitalisation was to be addressed in the last training package review, but didn't eventuate, now making ongoing work a critical priority.

Oral health promotion

The dental industry, in conjunction with State and Territory oral health services, the education, health and welfare sectors, and governments, plays a key role in the promotion of oral health within communities across Australia.

Oral health promotion aims to address the causes of poor oral health, risk factors and inequalities through intervention such as education, marketing and the provision of support.¹³

The dental industry requires the skills to work collaboratively, in a coordinated manner, with other

organisations in order to implement promotion strategies that successfully contribute to improved oral health.

Globalisation of market

The increasing popularity of medical tourism has seen many Australians travel internationally to undergo treatments and surgeries for a much lower cost than is available domestically. Now commonplace, dental tourism has also created affordability for some dental works, typically aesthetic. A number of companies are solely dedicated to the provision of international health care, making all the necessary arrangements on behalf of the client. Marketing efforts by such companies draw on the appeal of combining relaxing travel destinations with low-cost treatments and surgeries.

Dental work undertaken offshore carries a high degree of risk, with industry reporting on poor results, adverse effects and sub-standard dental practice that, in some cases, requires expensive repair work for the individual. However, the public continues to gravitate towards cheaper alternatives. As a result, the dental industry is required to better communicate the associated risks and advocate the high standard of Australian dental practice.

Offshore dental laboratories are also disrupting the Australian dental industry, whereby dental work is outsourced to global providers offering quick turn-arounds and efficient services. Securing the future for dental laboratories in Australia will require businesses to innovate and adapt to an increasingly competitive operating environment.

C. Employment

Employment outlook

As at March 2016, registration data from the Dental Board of Australia (DBA) showed that the total number of dental practitioner registrants was 21,657, comprising:

- 16,211 dentists;
- 1,015 dental therapists;
- 1,400 dental hygienists;
- 479 dual-qualified dental hygienists and dental therapists;
- 1,286 oral health therapists;
- 1,240 dental prosthetists, and
- a very small number of practitioners otherwise categorised.¹⁴

A limited amount of data is available to quantify non-registered dental professionals within Australia. As the registered practitioner numbers increase, there is usually a corresponding increase in the non-registered workforce.

The Dental industry is predicted to experience steady growth over the next five years as demand for dental services is expected to continue to grow in response to:

- population growth;
- increased tooth retention into older age;
- increased prevalence of chronic disease amongst certain populations;
- greater awareness of the importance of oral health;
- advanced restorative procedures and technologies;
- federal funding and anticipated flow-on implications;
- the ageing population;
- income gaps (between low- and high-income earners);
- educational attainment;
- consumer expectations;
- changing dental service offerings, i.e. aesthetic dentistry;
- the extent to which the population is covered by health insurance; and
- the availability of and access to public dentistry.¹⁶

As demand for dental services and dentists increases, the demand for dental support roles will similarly increase. An appropriate supply of dental assistants and dental

technicians is vital to the delivery of both safe and efficient dental care.

Employment levels and projections

When looking to the years 2011 and 2012 there was minimal change in the numbers of dentists and dental prosthetists registered in the dental workforce. In comparison, there was a significant change for the numbers of oral health therapists, dental hygienists and dental therapists. Oral health therapists experienced a decline in numbers whilst both dental hygienists and dental therapists experienced growth in numbers.

Employment figures presented in this Industry Skills Forecast have been retrieved from the best available data sources at the time of Industry Skills Forecast development. The dental industry identifies with a need for more robust data collection to occur.

The following table (table2) collates information on the key characteristics of the dental workforce, 2011-2012.

TABLE 2 KEY CHARACTERISTICS OF THE DENTAL WORKFORCE 2011-2012

Practitioner type	Number	Average age	Aged 55 and over (%)	Women (%)	Major cities(a) (%) (b)	Part time (<35 hours) (%)	Average weekly hours worked	FTE rate(c)
2011								
Dentists	12,599	43.4	22.8	35.2	79.7	30.8	37.3	55.4
Oral health therapists(d)	960	32.7	2.2	87.6	77.0	46.1	32.7	3.7
Dental hygienists(d)	1,047	37.6	5.8	96.4	84.7	63.3	28.7	3.5
Dental therapists (d)	1,030	46.3	14.2	97.5	60.8	61.6	29.2	3.5
Dental prosthetics	1,061	49.5	30.9	13.9	73.3	18.7	42.7	5.3
2012								
Dentists	13,266	43.4	23.4	36.5	79.7	31.7	37.0	56.9
Oral health therapists(d)	675	31.0	1.9	84.7	70.6	40.7	33.7	2.6
Dental hygienists(d)	1,425	37.4	5.7	94.6	83.7	62.1	29.4	4.9
Dental therapists (d)	1,117	46.4	20.4	96.9	63.4	59.1	29.4	3.8
Dental prosthetics	1,100	49.1	31.3	14.7	73.5	20.8	42.7	5.4

Source: Australian Institute of Health and Welfare, 2012, Dental workforce 2012

(a) Derived from remoteness area of main job where available; otherwise, remoteness area of principal practice is used as a proxy. If principal practice details are unavailable, remoteness area of residence is used. Records with no information on all 3 locations are coded to 'Not stated'.

(b) Percentage calculations exclude 'Not stated' values for ASGS region of home residence.

(c) Full-time equivalent (FTE) number per 100,000 population. FTE is based on total weekly hours worked (see Glossary).

(d) For oral health therapists, dental hygienists and dental therapists, 2011 and 2012 data are not directly comparable due to change in the methodology to assign a primary practitioner type to those practitioners registered in more than 1 division of general registration (see Box A1).

Notes

1. For 2012, employed dental practitioners data exclude those with provisional registrations.

Dental prosthetist

In 2012, 1,161 dental prosthetists were registered in Australia. The majority of these individuals, 96.6%, were in active employment within the dental industry. Of this figure:

- 78.5% of dental prosthetists were reported as working in private practices;

- approximately 3 in 20, or 14.7% of employed dental prosthetists were women;
- workforce supply was greatest in inner regional areas and lowest in remote/very remote areas; and
- the greatest number of employed dental prosthetists was in NSW (388) and the lowest in NT (1.3).

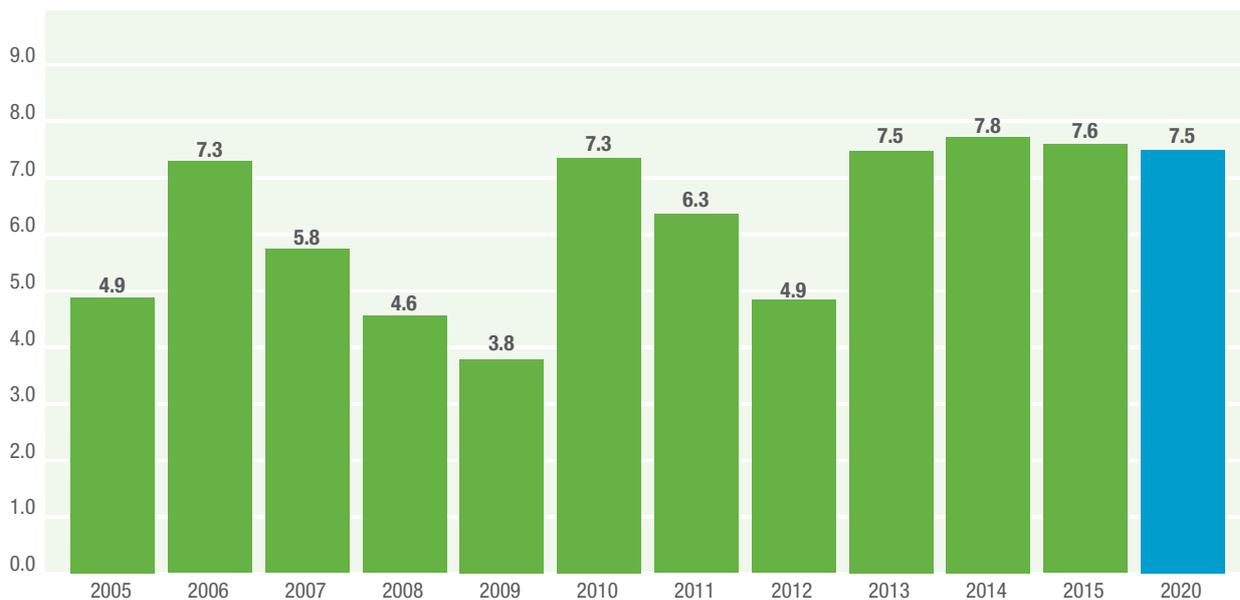
Dental hygienists, technicians and therapists

- This is a small occupation (7600 in November 2015) suggesting that opportunities may be quite limited in some regions.
- Unemployment for dental hygienists, technicians and therapists is below average.
- The number of job openings for dental hygienists, technicians and therapists is expected to be in the low category (equal to or less than 5,000) by 2019.

- Employment for this occupation has continued to rise moderately. Looking forward, employment for dental hygienists, technicians and therapists to November 2020 is expected to remain relatively steady.
- The most common level of educational attainment for this group is Bachelor degree (51.6%).

Note: The role of dental therapists is not covered by the Dental IRC.

EMPLOYMENT LEVELS (000S) PAST AND PROJECTED TO 2020 – DENTAL HYGIENISTS, TECHNICIANS AND THERAPISTS



Source: ABS Labour Force Survey, Department of Employment trend data to November 2015 and Department of Employment projections to 2020.

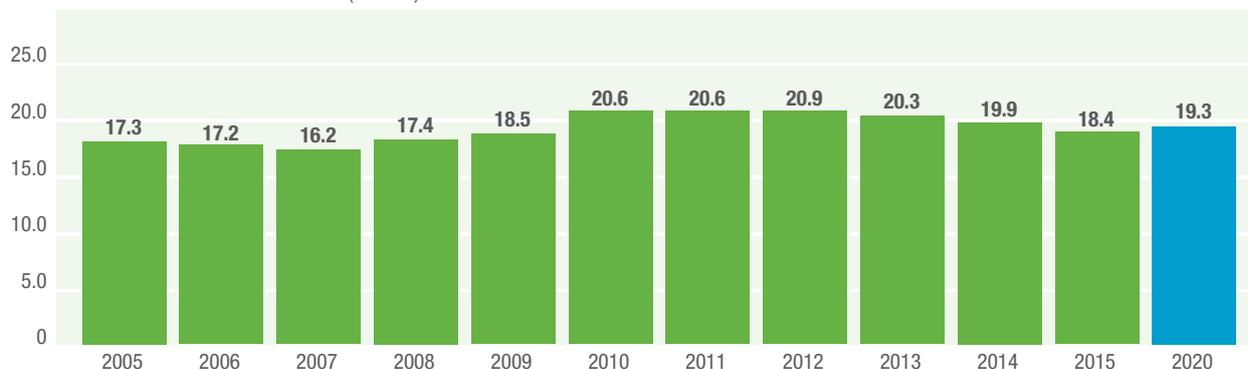
Dental assistants

In 2011, approximately 19,000 people self-reported as working as a dental assistant, an increase of 22% from 2006 with approximately 98% of the workforce being female.¹⁸ The average age of the workforce was 33 years with workers aged 55 years and over encompassing only approximately 6% of the total workforce for this job role. Over the past five years, employment figures in this job role have fallen slightly. However, employment has remained relatively steady in the past ten years.¹⁹

- Looking forward, employment for Dental Assistants to November 2020 is expected to grow moderately
- This is a medium-sized occupation (18,400 in November 2015), suggesting that opportunities may be limited in some regions

- The number of job openings for Dental Assistants is expected to be in the average category (between 10,001 and 25,000) by November 2019
- Dental assistants have a relatively low proportion of full-time jobs (574%). For Dental assistants working full-time, average weekly hours are 35.1 (compared to 40.2 for all occupations) and earnings are low - in the second decile. Unemployment for dental assistants is average
- The most common level of educational attainment for dental assistants is Certificate III/IV (57.7%).

EMPLOYMENT LEVELS (000S) PAST AND PROJECTED TO 2020 – DENTAL ASSISTANTS



Source: ABS Labour Force Survey, Department of Employment trend data to November 2015 and Department of Employment projections to 2020.

Workforce challenges and opportunities

Maldistribution of the dental workforce

Dental professionals are predominantly working in major cities across Australia with less than 10% employed in outer regional, remote or very remote areas. This spread of employment restricts the availability and accessibility of dental care for some Australian communities, impacting oral health quality for these population groups.²⁰ Industry is challenged to attract and retain dental professionals in these areas, due to a number of reasons ranging from practice viability through to professional isolation, to ensure the provision of oral health care in regional and rural areas.

The following table (Table 3) demonstrates registered dental practitioners, per 100,000 population, by practitioner type and location, 2012.

TABLE 3 REGISTERED DENTAL PRACTITIONERS, PER 100,000 POPULATION, BY PRACTITIONER TYPE AND LOCATION, 2012

Practitioner type	Major cities	Inner regional	Outer regional	Remote/ Very remote(b)	Australia(c)
Dentists	72.3	45.6	39.0	22.7	64.7
Oral health therapists	3.3	3.3	3.0	1.3	3.2
Dental hygienists	8.4	3.7	4.0	2.1	7.0
Dental therapists	5.2	6.2	7.7	5.9	5.6
Dental prosthetists	5.4	5.6	3.2	0.4	5.1

Source: Australian Institute of Health and Welfare, 2012, Dental workforce 2012

(a) Derived from remoteness area of main job where available; otherwise, remoteness area of principal practice is used as a proxy. If remoteness area details are unavailable, remoteness area of residence is used. Records with no information on all 3 locations are coded to 'Not stated'.

(b) Includes Migratory areas.

(c) Includes dental practitioners who did not state or adequately describe their location and those who were overseas.

Retention

Dental assistants play a crucial role in supporting dental practitioners and the provision of quality oral health care and, where highly skilled, can make a significant contribution to the overall effectiveness and efficiency of a dental practice. Industry employers widely report on difficulties retaining dental assistants, with high rates of turnover experienced for this occupation. Contributing factors are suggested to be the relatively poor rate of pay and perceived lack of defined career pathways.

Changing nature of duties

Increasing pressures are felt by dental practices and their teams to deliver 'more for less,' as clients expect a greater level of service at a reduced cost. Research from the United States reports that consumers are increasingly willing to see a range of mid-level health professionals for treatment or advice, in order to achieve greater value for their spend. Examples of this include a preparedness to see a nurse when a doctor is unavailable. Within the U.S similar pressures are felt across the dental industry to expand the duties and responsibilities of mid-level dental team members, including dental hygienists and therapists, in order to facilitate the expectations of cost-efficient services and procedures.²¹

Within Australia similar pressures are felt, with industry now looking to viable options, such as expanding job roles, to ensure adequate access to affordable quality care.

Further, improving workforce capacity and flexibility is essential to meeting both existing and increasing service delivery demands. It is suggested this can be achieved by maximising the skill set of dental assistants, dental therapists, oral health therapists and dental hygienists via appropriate education and training programs. The non-registered oral health workforce can play an important role in providing preventative support and there is a growing demand for an increase in their delivery of low risk services.

Leadership, management and administration skills

Changes in service delivery have heightened the need for service providers to have both effective administration

capabilities and strong management and leadership. Strength in team leadership supported by effective administrative processes are essential to operational efficiencies.

In addition, strength in clinical leadership at all levels is important for client safety and quality improvement. Building the capacity of dental practitioners as visible and active clinical leaders and innovators is essential, and includes capability-building to facilitate peer support and mentoring, lead peer review and promote new ideas.²²

Progression opportunities and enhanced career pathways are opened to administration staff who develop their management and leadership qualities. Here, overall benefits are provided to the business and care provision as a result of health professionals being able to focus solely on the delivery of quality care.²³

Further, the dental industry promotes the development of their dental assistants to become leaders within their own job role. Dental assistants, where adequately skilled, are well-positioned to take responsibility and increased accountability for areas such as quality and safety compliance, infection control and on-the-job training of their peers. Such activity reduces the burden on other staff, creates efficiencies and promotes greater job satisfaction for individuals.

Customer interaction

Heightened customer expectations and demands are forcing practices to innovate and consider how they can best serve their customer base, particularly in a climate of increased competition and changes in service delivery. Clients now demand a higher quality service and experience from their health care providers, forcing dental providers to develop means to better work with, engage and communicate with their clients.

The multicultural and multi-faith composition of the Australian population similarly calls for dental employers to consider how they serve and interact with a diverse client base.

D. Skills outlook

International and national trends in workplace design

Technology

Technology advancements have improved the quality of dental services and created efficiencies in dental practising. Examples can be seen in digital imagery where advancements in scanning technology now provide high-resolution images, reduced scanning time and lower radiation dosages. For specialised areas, such as restorative and aesthetic dentistry, advances in materials have created modern alternatives to traditional dental treatments.²⁴

Advancing communications technology has led to improvements in the operation of dental practices. Examples are evident where links to national and international databases are provided, enabling the dental workforce to seek support outside their own practice for clinical decisions, diagnoses and treatment options.²⁵ Dental practices are also now introducing new software to better track clients and proactively identify potential issues for early intervention.²⁶ Similarly telehealth, the use of telecommunication techniques for the purpose of providing telemedicine, medical education, and health education over a distance, is utilised to communicate dental data and information between practitioners in different locations.

When looking internationally, examples of rapid technology adoption in the dental industry are evident. Within the United States 'Virtual Dental Homes' (VDH) are becoming a viable solutions in assisting individuals who are unable to attend a dental clinic. In some cases an individual's capacity to visit a clinic may be inhibited by physical, geographic or economic circumstance. These individuals often suffer poor oral health in comparison to others within the population.

VDH delivers dental services in community settings, including in facilities where an individual receives education, social or other general health services. The VDH model relies on community-based practice of specially trained dental hygienists and assistants who

gather dental records and provide preventive care for clients. Information collated is sent, via a telehealth system, to a dentist who can provide a diagnosis and develop a treatment plan for the client. Where appropriate, the dentist may direct the hygienist or assistant to undertake minor treatments. In the instance of complex or advanced treatments VDHs connects clients with a dentist. This adoption of technologies sees a reduction in barriers to both preventive and basic dental health care for vulnerable populations.

To fully utilise and adopt technologies health and dental professionals must continually expand their skill and knowledge base. Contemporary training package products, reflective of industry skills needs, are key to ensuring the availability of professional development opportunities.

New models of care

International and Australian examples of new models of care both within oral health care and general health provide opportunities to revise or expand models of care within the Australian environment, recognising that this may require different legislative or policy environments.

Dental assistants are increasingly playing a role in the delivery of new models of community-based oral health care, to reach people where they live, work or receive educational or social services. Examples of the diversity of this type of innovation include the national Childsmile program in Scotland and the Virtual Dental Home (VDH) model through the University of the Pacific.

Health care and social assistance workers outside the dental workforce are also increasingly engaged in the provision of dental services to help reduce barriers and increase access to oral health care. The 'Healthy Smiles: Oral health and fluoride varnish information for health professionals' program is part of the Northern Territory's oral health promotion plan which aims to make oral health part of primary healthcare. The program provides non-oral health professionals with information regarding the prevention and management of oral disease. In this example, both Registered Nurses and Registered

Aboriginal Health Workers in the Northern Territory gain access to training to obtain skills for oral health assessment, anticipatory guidance and the application of fluoride varnish. A similar program has recently commenced in Western Australia.

The dental industry values the role other health workers can play in contributing to the improved oral health of Australians. The industry stresses the importance of ensuring appropriate guidelines are in place, as well as the provision of training, to ensure the safe and effective provision of care when delivered by others.

Changing and emerging models of care require a flexible dental workforce that utilises and embraces the contributions of lower-level workers and other health care professionals.

Top five skills required within the next three to five year period

Communication in a dental setting
Dental technology
Clinical leadership
Leadership in a dental setting
Customer service in a dental setting

COMMON WORKFORCE SKILLS RANKED IN ORDER OF IMPORTANCE

Workforce Skill	Rank
Communication/Virtual collaboration/Social intelligence	1
Learning agility/Information literacy/Intellectual autonomy and self-management	2
Customer service/Marketing	3
Language, Literacy and Numeracy	4
Technology	5
Design mindset/Thinking critically/System thinking/Solving problems	6
Managerial/Leadership	7
Science, Technology, Engineering and Mathematics (STEM)	8
Data analysis	9
Financial	10
Environmental and Sustainability	11
Entrepreneurial	12

To be of relevance to the sector, the above-listed skills must be defined based on the specific and unique requirements of the dental workforce. When looking to generic workforce skills industry sectors offer varying interpretations and definitions of these skills. Without a definition, these skills have been allocated based on individual interpretations.

The above skills were informed through a variety of methods, which included:

- desk research, which was undertaken to develop an understanding of existing research and views on skill requirements in this sector
- an industry workforce survey, which was open to all stakeholders across all industries. The broad scope of the survey allowed a variety of individuals from different industries to contribute, which reflects the wide-ranging use of these training package products.
- consultation with the IRC, to confirm that the information is both valid and reflects industry views appropriately.

E. Other relevant skills-related insights for this sector

Concern has been expressed that currently-endorsed dental qualifications are not truly reflective of industry skills needs. Specifically, concern has been raised regarding the inability of the Certificate IV in Dental Assisting to deliver higher level skills beyond those contained within the Certificate III in Dental Assisting qualification.

Industry proposes the addition of units of competency for Assisting in Orthodontics and Assisting in Implant Dentistry also be included at the Certificate IV level. For these reasons the Dental IRC has proposed the two above-mentioned qualifications be reviewed in year three.

Further, there is an identified gap in nationally recognised education and training programs to support the development of clinical leadership skills for experienced clinicians. Organisations are developing in-house programs to address this gap. However, it would be beneficial to have them accredited within the qualifications framework.

The Australian Commission on Safety and Quality in Health Care released the National Safety and Quality Health Service (NSQHS) Standards Guide for Dental Practices and Services in November 2015. An understanding of these standards, in order to support quality and risk management and the ability to work within an accreditation system, is an important factor in providing an environment that prioritises client safety and quality.

F. Proposed Schedule of Work: 2016-17 – 2019-20

Time-critical issues

Scheduling in this work plan has considered the need to allow for the proper implementation and testing of training products within the system prior to any further review work. As a result, training product review has been scheduled based on the timing of the last review, with the exception of the Diploma of Dental Technology.

Interdependencies

Dental units of competency and associated assessment requirements are packaged within Dental qualifications only. Qualifications in Training Packages other than the Health Training Package do not currently import dental units.

Dental qualifications will be impacted by the review of imported units of competency from the following training packages:

- BSB Business Services Training Package
- CHC Community Services Training Package
- FSK Foundation Skills Training Package
- HLT Health Training Package
- TLI10 Transport and Logistics Training Package.

Where the IRC is advising that a training product would need to be reviewed more than once in the four-year period

The IRC notes that there may be instances of unforeseen change triggering a need to review training package products outside of where listed in the national schedule. Examples of unforeseen changes include, but are not limited to, changes to legislation, regulation and industry licencing.

Where the review of a training product is expected to be contentious or involve lengthy work

It is difficult to predict if review of these training products will be contentious or lengthy as the detail of proposed change has not yet been identified or considered by industry. At this time no significant issues have been detected, however the IRC notes that the very nature of training product review work will bring to light differing stakeholder views.

Cross Sectoral Projects

The Dental IRC welcomes the strategic approach to cross-sector skills that has been adopted by the Australian Industry and Skills Committee (AISC) and supports the achievement of efficiencies in the product development process through the development of cross-industry skills standards.

SkillsIQ has been commissioned by the AISC to lead a project that will identify and address cross sectoral skills needs in 'Consumer Engagement through Social and Online Media'. This IRC has been identified as one of several IRCs who will be engaged to contribute to this work.

G. IRC sign-off

This Industry Skills Forecast and Proposed Schedule of Work was agreed to by:

Deborah Cole, Chair of the Dental IRC

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Signature of Chair

Date:

Dental IRC Proposed Schedule of Work 2016-17 to 2019-2020

Contact details: Deborah Cole, Chair of the Dental IRC; Melinda Brown, SkillsIQ General Manager. Date submitted to Department of Education and Training: 28 April 2017.

Training products included in this proposed schedule of work were last reviewed in 2015 and released on the national register, training.gov.au, on 8 December 2015. A temporary extension to RTO transition requirements was agreed by the Australian Government Minister for Vocational Education and Skills and Territory Skills Ministers. As a result, RTOs are not required to have the updated qualifications on scope until 8 June 2017.

To allow the training products to be properly implemented and tested within the system, the training products in this sector have been scheduled for review in years three and four, with the exception of the Diploma of Dental Technology. This qualification has been included in year one based on the industry-identified need for additional dental technology components to be included as a priority.

The development of a new Advanced Diploma of Oral Health has been proposed in year 3 based on the industry identified need for a nationally recognised qualification that reflects the role of dental hygienists. The structure of this qualification will be further explored in a Case for Change, pending approval.

Planned review start (Year)	Training package code	Training package name	Qualification code	Qualification name	Unit of Competency code	Unit of competency name
QUALIFICATIONS						
Year 1 (2016-2017) Based on industry identified need for priority development	HLT	Health	HLT55115	Diploma of Dental Technology		
Year 3 (2018-2019) Based on timing of last review	HLT	Health	HLT35015	Certificate III in Dental Assisting		
Year 3 (2018-2019) Based on timing of last review	HLT	Health	HLT45015	Certificate IV in Dental Assisting		
Year 3 (2018-2019) Based on industry identified need for priority development within this year	HLT	Health	New Qualification	Advanced Diploma of Oral Health		
Year 4 (2019-2020) Based on timing of last review	HLT	Health	HLT35115	Certificate III in Dental Laboratory Assisting		
Year 4 (2019-2020) Based on timing of last review	HLT	Health	HLT65015	Advanced Diploma of Dental Prosthetics		
SKILL SETS						
Year 3	HLT	Health	HLTSS00049	Oral Health Care Skill Set		
Year 3	HLT	Health	HLTSS00060	Dental radiography Skill Set		

Planned review start (Year)	Training package code	Training package name	Qualification code	Qualification name	Unit of Competency code	Unit of competency name
UNITS OF COMPETENCY						
Year 1	HLT	Health			HLTDET001	Construct models
Year 1	HLT	Health			HLTDET002	Construct custom impression trays
Year 1	HLT	Health			HLTDET003	Construct registration rims
Year 1	HLT	Health			HLTDET004	Articulate models and transfer records
Year 1	HLT	Health			HLTDET005	Construct thermoformed bases and appliances
Year 1	HLT	Health			HLTDET006	Construct immediate dentures
Year 1	HLT	Health			HLTDET007	Construct removable acrylic partial dentures
Year 1	HLT	Health			HLTDET008	Construct cast alloy removable partial denture framework
Year 1	HLT	Health			HLTDET009	Construct crown and bridge structures
Year 1	HLT	Health			HLTDET010	Join alloy structures
Year 1	HLT	Health			HLTDET011	Construct ceramic and fixed restorations
Year 1	HLT	Health			HLTDET012	Construct orthodontic appliances
Year 1	HLT	Health			HLTDET013	Construct oral splints
Year 1	HLT	Health			HLTDET014	Repair and modify dentures and appliances
Year 1	HLT	Health			HLTDET015	Construct complete removable acrylic dentures and appliances
Year 3	HLT	Health			HLTDEN001	Prepare for and assist with oral health care procedures
Year 3	HLT	Health			HLTDEN002	Assist with dental radiography
Year 3	HLT	Health			HLTDEN003	Assist with administration in dental practice
Year 3	HLT	Health			HLTDEN004	Implement an individualised oral hygiene program
Year 3	HLT	Health			HLTDEN005	Assist in oral health care procedures during general anaesthesia
Year 3	HLT	Health			HLTDEN006	Assist in oral health care procedures during conscious sedation
Year 3	HLT	Health			HLTDEN007	Apply the principles of radiation biology and protection in dental practice

Planned review start (Year)	Training package code	Training package name	Qualification code	Qualification name	Unit of Competency code	Unit of competency name
Year 3	HLT	Health			HLTDEN008	Prepare to expose a prescribed dental radiographic image
Year 3	HLT	Health			HLTDEN009	Produce a prescribed dental radiographic image
Year 3	HLT	Health			HLTDEN010	Implement an oral hygiene program for older people
Year 3	HLT	Health			HLTDEN011	Implement an oral health promotion program
Year 3	HLT	Health			HLTDEN012	Take an impression for study models
Year 3	HLT	Health			HLTDEN013	Allocate treatment appointments according to priority
Year 3	HLT	Health			HLTDEN014	Take a clinical photograph
Year 3	HLT	Health			HLTOHC001	Recognise and respond to oral health issues
Year 3	HLT	Health			HLTOHC002	Inform and support patients and groups about oral health
Year 3	HLT	Health			HLTOHC003	Apply and manage use of basic oral health products
Year 3	HLT	Health			HLTOHC004	Provide or assist with oral hygiene
Year 4	HLT	Health			HLTDEP001	Identify, select and prepare instruments, equipment and materials
Year 4	HLT	Health			HLTDEP002	Gather data, conduct dental prosthetic examination and develop treatment plan
Year 4	HLT	Health			HLTDEP003	Take impressions
Year 4	HLT	Health			HLTDEP004	Establish and record jaw relationships and select artificial teeth
Year 4	HLT	Health			HLTDEP005	Evaluate a removable dental prosthesis at try-in stage
Year 4	HLT	Health			HLTDEP006	Insert and issue a completed removable dental prosthesis
Year 4	HLT	Health			HLTDEP007	Perform maintenance treatment for patient with removable dental prostheses
Year 4	HLT	Health			HLTDEP008	Construct and insert an implant retained overdenture
Year 4	HLT	Health			HLTOHC005	Use basic oral health screening tools
Year 4	HLT	Health			HLTOHC006	Apply fluoride varnish

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CAPABLE PEOPLE MAKE CLEVER BUSINESS



SkillsIQ Limited

Address GPO Box 4194 Sydney NSW 2001 | Level 1, 332 Kent Street, Sydney NSW 2000
Telephone 02 9392 8100 | Fax 02 9392 8199 | Web www.skillsiq.com.au

Find us on: