



**Australian Government**  
**Australian Institute of  
Health and Welfare**

# Dental workforce 2012





**Australian Government**

**Australian Institute of  
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*Authoritative information and statistics  
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Number 7

# **Dental workforce**

**2012**

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**Please note that there is the potential for minor revisions of data in this report. Please check the online version at <[www.aihw.gov.au](http://www.aihw.gov.au)> for any amendments.**

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Australian Health Practitioner Regulation Agency

The work survey data were provided by the Australian Health Practitioner Regulation Agency.

# Abbreviations

ABS	Australian Bureau of Statistics
AHMAC	Australian Health Ministers Advisory Council
AHPRA	Australian Health Practitioner Regulation Agency
AIHW	Australian Institute of Health and Welfare
ASGS	Australian Statistical Geography Standard
ASGS RA	Australian Statistical Geography Standard remoteness area
DBA	Dental Board of Australia
FTE	full-time equivalent
HWA	Health Workforce Australia
NCVER	National Centre for Vocational Education and Training
NHWDS	National Health Workforce Data Set
NRAS	National Registration and Accreditation Scheme
RA	remoteness area

# Symbols

+	and over
–	nil or rounded to zero
..	not applicable
n.a.	not available
n.p.	not publishable because of small numbers, confidentiality or other concerns about the quality of the data.

# Notes

1. Numbers in tables and flow charts may not sum to the totals shown due to the estimation procedure to adjust for non-response (see Appendix A). As a result, the estimated numbers of dental practitioners may be fractions, but are rounded to whole numbers for publication.
2. Percentages in tables and flow charts may not sum to 100 due to rounding.
3. *Italic type* within a table denotes a subtotal.
4. Explicit references to categories of data items are in quotation marks.



# Summary

Access to reliable, comprehensive, timely and nationally consistent trend data is required to understand the current health workforce and for its future planning. There is particular interest in changes to the size and composition of the various health professions, and the potential impacts of these changes on health-care delivery.

This report provides data on the Australian dental practitioner workforce in 2012.

## Size of the dental workforce

- In 2012, there were 19,462 dental practitioners registered in Australia.
  - Three-quarters of these practitioners (14,687) were dentists.
  - The number of employed dentists increased by 5.3%, from 12,599 in 2011 to 13,266 in 2012.
  - There were 1,330 dentists working as specialists. Orthodontics was the most common specialty (518 dentists).
- In 2012, there were also 1,425 dental hygienists, 1,117 dental therapists, 1,100 dental prosthetists and 675 oral health therapists employed in their fields.

## Sex and age of the dental workforce

### Sex

- Dentistry is a male dominated profession; however, the proportion of female dentists increased to 36.5% in 2012 from 35.2% in 2011.
- Employed dental therapists, dental hygienists and oral health therapists, were predominantly women (96.9, 94.6% and 84.7%, respectively).
- Dental prosthetists were much more likely to be men. Women made up 14.7% of this workforce, an increase from 13.9% in 2011.

### Age

- The average age of dentists employed in 2012 was 43.4 (the same as in 2011) and 23.4% were aged 55 and over.
- 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.

## Working arrangements

- Dentists worked, on average, 37.0 hours per week in 2012, a slight decrease from 2011 (37.3 hours per week). In 2012, 31.7% dentists worked part time (less than 35 hours per week).
- The majority of employed dentists were working in private practice (79.7% of clinicians and 77.3% of all dentists).
- Most specialists worked in private practice (75.0%) and in *Major cities* (89.1%).
- *Major cities* had more dentists per capita than other areas in 2012 at 64.3 full-time equivalent (FTE) dentists per 100,000 population, and more than the Australian rate of 56.9 FTE dentists.

# 1 Introduction

Access to reliable, comprehensive, timely and nationally consistent trend data is required to understand the current health labour force and for workforce planning. The size, distribution and expertise of the health workforce are of keen interest to governments, educators, health-care providers and the community. There is particular interest in changes to the size and composition of the various health professions, and the potential impacts of these changes on health-care delivery.

Recognising this, in 1990 the Australian Health Ministers Advisory Council (AHMAC) commissioned the Australian Institute of Health and Welfare (AIHW) to develop national health labour force statistics on the registrable health professions. Since then, the AIHW has produced a number of reports on these professions, largely based on data collected from separate registration bodies in each state and territory, and survey data.

In 2009, Health Workforce Australia (HWA) was established by the Council of Australian Governments to tackle the challenges of providing a skilled, flexible and innovative health workforce that meets the needs of the community. In 2010, the AHMAC established the Australian Health Practitioner Regulation Agency (AHPRA). The AHPRA is responsible for the administration and implementation of the National Registration and Accreditation Scheme (NRAS), which acts as a central regulatory and registrations body.

This report provides data on the Australian dental practitioner workforce in 2012. This is the second report on dental practitioners in the NRAS to use information from the new National Health Workforce Data Set (NHWDS): dental practitioners (see Box 1.1). The first report was *Dental workforce 2011* (AIHW 2013).

## **Box 1.1: National Health Workforce Data Set: dental practitioners**

The NHWDS combines data from the NRAS with data collected from the optional Dental Workforce Survey conducted at the time of annual registration or renewal of registration (see Appendix A). The mandatory registration process is administered by the AHPRA.

The information in this report focuses on dental practitioners who make up the workforce (see Box 1.2); thus, most of the data exclude those not actively working in the dental profession. For this reason, figures in this report are not directly comparable with those on the number of registered dental practitioners released by the AHPRA (see Appendix D).

## **Box 1.2: Who is a dental practitioner?**

A dental practitioner is a trained professional in dentistry, oral health therapy, dental hygiene, dental therapy or dental prosthetics (DBA 2013c).

Under the national legislation, a dental practitioner is defined as being those people who are registered by the Dental Board of Australia (DBA), in conjunction with the AHPRA, to practice in the dental profession. The DBA sets out standards and eligibility criteria for the profession that need to be met for people to be registered and practice in Australia (see Box 1.3).

## Registration of dental practitioners

All dental practitioners must be registered with the AHPRA to practise in Australia. This applies to both those trained in Australia and overseas.

The AHPRA manages the NRAS, which replaced state and territory-based registration with a single national registration and accreditation system for dental practitioners in July 2010. As part of this scheme, the AHPRA supports the Dental Board of Australia who are responsible for regulating registered dental practitioners under nationally consistent legislation (see Box 1.3). Registration is granted, subject to applicants meeting the relevant standards. The outcome of an application is either 'registration', 'registration with conditions' or 'rejection'.

### Box 1.3: The Dental Board of Australia

The Dental Board of Australia (DBA) is the national dental regulator in Australia. It is established under the *Health Practitioner Regulation (National Uniform Legislation) Act 2010*, as in force in each state and territory (the National Law).

The functions of the DBA include:

- registering dental practitioners and students
- developing standards, codes and guidelines for the dental profession
- handling notifications, complaints, investigations and disciplinary hearings
- assessing overseas-trained practitioners who wish to practice in Australia
- approving accreditation standards and accredited courses of study.

The DBA has established state and territory boards to support its work in the national scheme. The DBA sets policy and professional standards, and the state and territory boards continue to make individual notification and registration decisions affecting individual dental practitioners, based on the national policies and standards (DBA 2013b).

## Dental Workforce Survey

When the NRAS was introduced in 2010, a new national survey, administered by the AHPRA and developed by the HWA, was included as part of the annual registration renewal process. This Dental Workforce Survey is used to provide nationally consistent estimates of the characteristics of the dental practitioner workforce. They provide data not readily available from other sources, such as:

- the type of work done by, and work setting of, dental practitioners
- the number of hours worked in clinical or non-clinical roles
- the numbers of years worked, and the years they intend to remain in, the dental practitioner workforce.
- those registered dental practitioners who are not currently undertaking clinical work or who are not employed.

A copy of the Dental Workforce Survey questionnaire is available from the AIHW website <<http://www.aihw.gov.au/workforce-publications/>> (select link to Dental workforce 2012, additional material).

## Exclusions from survey

Most registered dental practitioners have general registration, but some have provisional registration. With provisional registration, graduates are required to undertake a period of supervised practice and are required to renew registration only after completing their first year. As a result, these registrants are less likely to have completed the Dental Workforce Survey and are excluded from tables of employed practitioners.

## Workforce supply

Data on the size and characteristics of the dental workforce present a valuable profile of each dental profession, but do not give a complete picture of the overall level of service provided. Some practitioners work part time and others full time; therefore, their relative contributions to the level of service need to be taken into account to measure the overall supply effectively.

To measure overall supply, information on the number of hours worked has been used to calculate a full-time equivalent (FTE) number of dental practitioners, based on a standard full-time working week of 38 hours. Australian Bureau of Statistics (ABS) estimated resident population data have been used to convert the FTE number to an FTE rate (FTE number per 100,000 population) (see Appendix E).

There are 3 sources of recruits to the dental workforce:

- new graduates. This is the main source of new recruits; however the time required for students to complete training and enter the workforce is such that any acute change in the demand for dental practitioners cannot readily be met quickly by this group
- the pool of dental practitioners who have maintained their registration or enrolment, but who are not employed in their relevant field
- overseas-trained dental practitioners who have migrated to Australia.

This report discusses data relevant to the first 2 sources. Data on migrant, overseas-trained dental practitioners will become available as the NRAS matures, and details of new entrants are included at each registration renewal.

## Geographic distribution of the workforce

The Dental Workforce Survey collects information on:

- the work location of dental practitioners
- the number of hours worked.

In combination with ABS data on population numbers in different regions, these data are used to examine variability in the supply of employed dental practitioners across Australia.

The remoteness area (RA) categories from the Australian Statistical Geography Standard (ASGS) (ABS 2013a) have been used in this report to show data by geographic region. Using the postcode of their main work location (where available), a dental practitioner is allocated to 1 of the following in the ASGS RA: *Major cities*, *Inner regional*, *Outer regional*, *Remote*, *Very remote* and *Migratory*. Otherwise, remoteness area of principal practice is used as a proxy; if remoteness area of principal practice is unavailable, remoteness area of residence is used. Records with no information on all 3 locations are coded to 'Not stated' location. In this report, the *Remote*, *Very remote* and *Migratory* categories have been combined due to small numbers.

## Structure of this report

Chapter 2 summarises the characteristics of those registered across the dental professions. The following 5 chapters are devoted to each dental profession in turn,, in order of the size of each group (chapters 3 to 7). Each chapter has a preliminary summary and then covers:

- workforce status
- range of characteristics of those employed in the profession, including demographic characteristics, work setting and working hours
- geographic spread.

Finally, Chapter 8 provides information on sources of new entrants and re-entrants to the profession.

## Additional information

Before the introduction of the NRAS in 2010, the registration numbers of dental practitioners were published in annual reports of state and territory boards or councils, for professions that required registration. These figures are now published by the AHPRA (see Appendix D) and are available from the AHPRA website <<http://www.ahpra.gov.au>>.

An electronic version of this report is available from the AIHW website <<http://www.aihw.gov.au/workforce-publications/>> (select link to Dental workforce 2012).

## 2 Composition of the dental workforce

In 2012, 19,462 dental practitioners were registered in Australia. Of these:

- dentists comprised the bulk (75.5%) of the workforce
- dental therapists comprised 6.6% of the workforce
- dental prosthetists were 6.0%
- dental hygienists were 8.2%
- oral health therapists were 3.8%.

From 2011 to 2012, the number of registered dentists grew by 4.2% and the number of registered dental prosthetists by 3.0% (Table 2.1).

**Table 2.1: Registered dental practitioners, by practitioner type, 2003 to 2012**

Practitioner type	2003 <sup>(a)</sup>	2006 <sup>(a)</sup>	2009 <sup>(a)</sup>	2011	2012
Dentists	10,921	11,686	12,941	14,099	14,687
Oral health therapists <sup>(b)(c)</sup>	..	397	651	1,077	738
Dental hygienists <sup>(c)(d)</sup>	686	770	1,031	1,194	1,600
Dental therapists <sup>(c)</sup>	1,559	1,364	1,383	1,163	1,276
Dental prosthetists <sup>(d)</sup>	1,034	1,039	1,157	1,127	1,161
<b>Total</b>	<b>14,200</b>	<b>15,438</b>	<b>17,163</b>	<b>18,660</b>	<b>19,462</b>

(a) Excludes multi-state registrations.

(b) Oral health therapists were not separately enumerated in 2003. Practitioners with dual qualifications/registrations are counted separately in dental hygienists and dental therapists. 2006 data excludes Tasmania, the Australian Capital Territory and the Northern Territory.

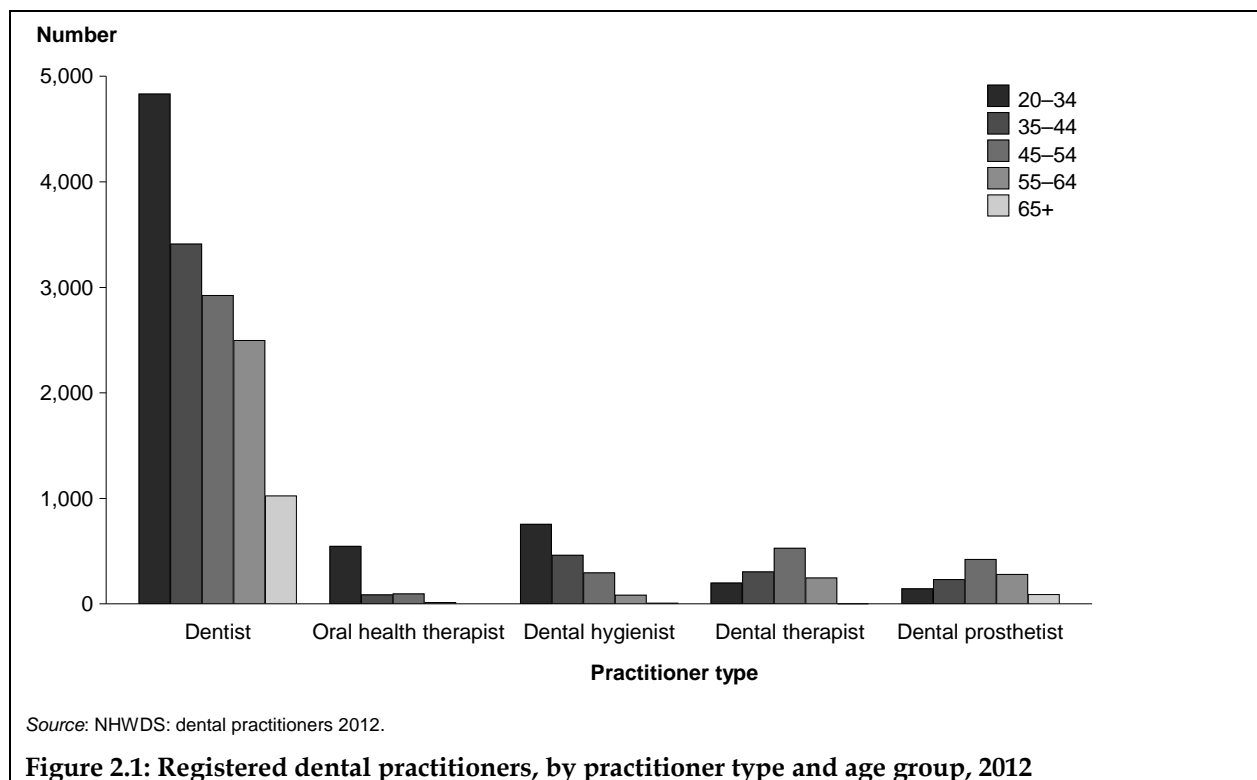
(c) For oral health therapists, dental hygienists and dental therapists, 2011 and 2012 data are not directly comparable due to a change in the methodology to assign a primary practitioner type to those practitioners registered in more than 1 division of general registration (see Box A1).

(d) 2006 data excludes the Northern Territory.

Note: For 2011, data supplied by the AHPRA has been updated (October 2013) and therefore will not match data previously published.

Sources: National Dental Labour Force Collection, 2003, 2006 and 2009; NHWDS: dental practitioners, 2011 and 2012.

The age profiles of dental professionals varied, with dentists concentrated in the youngest categories and the number of dental therapists and dental prosthetists peaking in the 45–54 age group (Figure 2.1).



The number of registered dentists per 100,000 population ranged from 72.3 in *Major cities* down to 22.7 in *Remote/Very remote* areas. Dental prosthetists, on the other hand, were relatively more common in *Inner regional* areas (5.6 per 100,000 population) with very low numbers in *Remote/Very remote* areas (0.4 per 100,000 population) (Table 2.2).

**Table 2.2: Registered dental practitioners per 100,000 population, by practitioner type, remoteness area<sup>(a)</sup>, 2012**

Practitioner type	Major cities	Inner regional	Outer regional	Remote/ Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
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

(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.

Source: NHWDS: dental practitioners 2012.

The number of registered dentists ranged from 71.2 per 100,000 population in the Australian Capital Territory to 41.7 in Tasmania. Dental prosthetists, on the other hand, were relatively more prevalent in Tasmania (9.8 per 100,000 population), with the lowest concentration in the Northern Territory (2.1 per 100,000 population). The distribution of the other 3 categories is complicated by the extent that the relatively new category of 'oral health therapists' has been taken up. For example, Western Australia and Tasmania have relatively low numbers of oral health therapists and higher numbers of dental hygienists (Table 2.3).

**Table 2.3: Registered dental practitioners per 100,000 population, by practitioner type, states and territories<sup>(a)</sup>, 2012**

Practitioner type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Dentists	66.2	62.8	61.8	63.4	66.9	40.2	71.2	41.7	64.7
Oral health therapists	2.7	2.7	6.1	0.2	5.1	1.0	2.1	2.1	3.2
Dental hygienists	5.5	4.9	5.8	11.8	16.8	3.3	14.1	5.5	7.0
Dental therapists	3.4	3.6	5.2	15.8	6.9	10.3	4.3	8.1	5.6
Dental prosthetists	5.6	5.8	4.8	3.5	3.1	9.8	3.5	2.1	5.1

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

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

Source: NHWDS: dental practitioners 2012.

From 2011 to 2012, there was little change in the numbers of dentists and dental prosthetists employed in the dental workforce. However, the numbers of oral health therapists, dental hygienists and dental therapists changed significantly over the same period. This which may in part be attributed to the change of methodology to assign a primary practitioner type to those practitioners holding more than 1 division of general registration (i.e. those registered in more than 1 dental profession) (see Box A1). There was a decrease in the number of employed oral health therapists by 29.7%, while dental hygienists increased by 36.1% and dental therapists by 8.4% (Table 2.4).

The selected characteristics in Table 2.4 show little variation in practitioner type from 2011 to 2012, despite oral health therapist, dental hygienist and dental therapist data not being directly comparable between the 2 years. The profession-specific chapters in this report (chapters 3 to 7) present mainly 2012 data because there is little variation between the years.



**Table 2.4: Employed dental practitioners, by practitioner type, selected characteristics, 2011 and 2012**

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

(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 a 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 2011, data supplied by the AHPRA has been updated (October 2013) and therefore will not match data previously published.

2. For 2012, employed dental practitioner data exclude those with provisional registrations.

Sources: NHWDS: dental practitioners, 2011 and 2012.

### 3 Dentist workforce

#### At a glance

	<p>In 2012, there were 14,687 registered dentists, of whom 13,266 were employed in dentistry (96.1%).</p>
	<p>Over one third of registered dentists were women in 2012.</p>
	<p>In 2012, the average age of employed dentists was 43.4 and 23.4% were aged 55 or over.</p>
	<p>On average, employed dentists worked 37.0 hours per week in 2012.</p>
	<p>In 2012, a total of 1,330 dentists worked as specialists. Orthodontics was the most common specialty.</p>
	<p>A total of 766 Australians started studying to be a dentist and 556 completed qualifications as dentists in 2011.</p>

Source: NHWDS: dental practitioners 2012.

This chapter provides details about the dentist workforce in Australia in 2012. For information about what dentists do see Box 3.1.

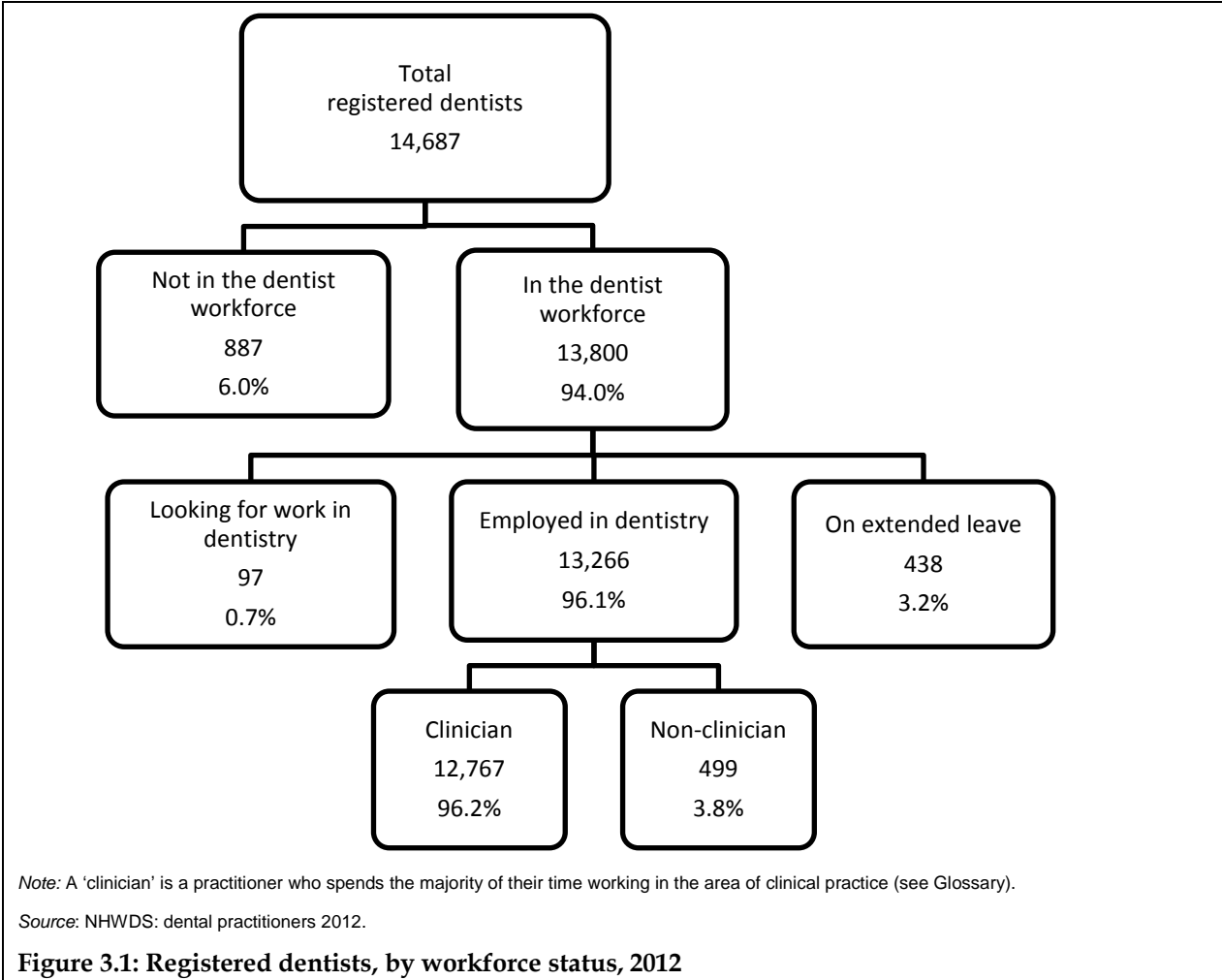
**Box 3.1: Who is a dentist?**

Dentists work as independent practitioners (i.e. without supervision) and may practice all parts of dentistry. They provide assessment, diagnosis, treatment, management and preventive services to patients of all ages.

Source: DBA 2013a.

**Workforce status**

In 2012, there were 14,687 registered dentists in Australia. The majority of these were in the dentist workforce (13,800), of whom 96.1% (13,266) were employed. Of the remainder, 97 were looking for work in dentistry and 438 were on extended leave (Figure 3.1).



Most registered dentists held a general registration (85.6%), followed by those with a general and specialist registration (10.1%). Dentists with a non-practising registration reported the highest average age (50.5 years), followed by those with a general and specialist registration (49.9 years). The category with the highest proportion of women was dentists who hold a limited registration (57.6%) (Table 3.1).

**Table 3.1: Registered dentists, by registration type, selected characteristics, 2012**

Registration type	Number	Average age	Aged 55 and over (per cent)	Women (per cent)
General	12,577	42.8	22.7	38.7
General and specialist	1,485	49.9	36.6	23.1
Limited	337	33.9	3.0	57.6
Non-practising	263	50.5	43.7	44.9
Specialist	25	39.8	n.p.	n.p.
<b>Total</b>	<b>14,687</b>	<b>43.4</b>	<b>24.0</b>	<b>37.7</b>

Source: NHWDS: dental practitioners 2012.

From 2011 to 2012, the number of dentists in the dentist workforce increased, from 13,207 to 13,800 (4.5%); while those employed in dentistry increased by 5.3% over the same years, from 12,599 in 2011 to 13,266 in 2012. Dentists not in the dentist workforce decreased in number by 0.6% over the same years (from 892 in 2011 to 887 in 2012) (Table 3.2).

**Table 3.2: Registered dentists, by workforce status, 2011 and 2012**

Workforce status	2011	2012	Change between 2011 and 2012 (per cent)
<b><i>In the dentist workforce</i></b>	<b>13,207</b>	<b>13,800</b>	<b>4.5</b>
Employed in dentistry	12,599	13,266	5.3
<i>Looking for work in dentistry</i>	84	97	15.1
Employed elsewhere	13	11	-11.3
Not employed	71	85	19.9
On extended leave of 3 months or more	523	438	-16.3
<b><i>Not in dentist workforce</i></b>	<b>892</b>	<b>887</b>	<b>-0.6</b>
Overseas	399	416	4.3
<i>Not looking for work in dentistry</i>	320	302	-5.6
Employed elsewhere	147	93	-36.7
Not employed	174	210	20.7
Retired from regular work	174	169	-2.8
<b>Total registered dentists</b>	<b>14,099</b>	<b>14,687</b>	<b>4.2</b>

Note: For 2011, data supplied by the AHPRA has been updated (October 2013) and therefore will not match data previously published.

Sources: NHWDS: dental practitioners, 2011 and 2012.

The number of registered dentists in the dentist workforce ranged from 4,598 in New South Wales down to 94 in the Northern Territory (Table 3.3). This is a reflection that New South Wales is the largest labour market for dentists and the Northern Territory is the smallest.

**Table 3.3: Registered dentists, by workforce status and principal role of main job, states and territories<sup>(a)</sup>, 2012**

<b>Workforce status</b>	<b>NSW</b>	<b>Vic</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>ACT</b>	<b>NT</b>	<b>Australia<sup>(b)</sup></b>
<b><i>In the dentist workforce</i></b>	<b>4,598</b>	<b>3,373</b>	<b>2,713</b>	<b>1,467</b>	<b>1,063</b>	<b>198</b>	<b>258</b>	<b>94</b>	<b>13,800</b>
<i>Employed in dentist workforce</i>	4,395	3,232	2,627	1,416	1,037	191	246	89	13,266
Clinician <sup>(c)</sup>	4,268	3,126	2,525	1,343	962	190	238	86	12,767
Non-clinician	127	106	102	73	75	1	8	3	499
<i>Looking for work in dentistry</i>	32	23	19	13	4	<i>n.p.</i>	<i>n.p.</i>	—	97
Employed elsewhere	<i>n.p.</i>	<i>n.p.</i>	4	3	—	—	—	—	11
Not employed	<i>n.p.</i>	<i>n.p.</i>	15	9	4	<i>n.p.</i>	<i>n.p.</i>	—	85
On extended leave of 3 months or more	171	118	67	39	22	4	11	4	438
<b><i>Not in dentist workforce</i></b>	<b>235</b>	<b>163</b>	<b>107</b>	<b>76</b>	<b>45</b>	<b>8</b>	<b>10</b>	<b>4</b>	<b>887</b>
Overseas	70	59	34	18	11	<i>n.p.</i>	3	<i>n.p.</i>	416
<i>Not looking for work in dentistry</i>	89	71	53	33	26	<i>n.p.</i>	5	<i>n.p.</i>	302
Employed elsewhere	31	23	16	6	—	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	93
Not employed	58	47	37	26	26	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	210
Retired from regular work	76	33	21	25	9	<i>n.p.</i>	<i>n.p.</i>	—	169
<b>Total registered dentists</b>	<b>4,833</b>	<b>3,536</b>	<b>2,821</b>	<b>1,543</b>	<b>1,108</b>	<b>206</b>	<b>267</b>	<b>98</b>	<b>14,687</b>

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

(b) Includes dentists who did not state or adequately describe their location and those who were overseas.

(c) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

## Dentists employed in dentistry

A person who reported working in dentistry in the week before the survey was considered to be an 'employed dentist' (see Glossary).

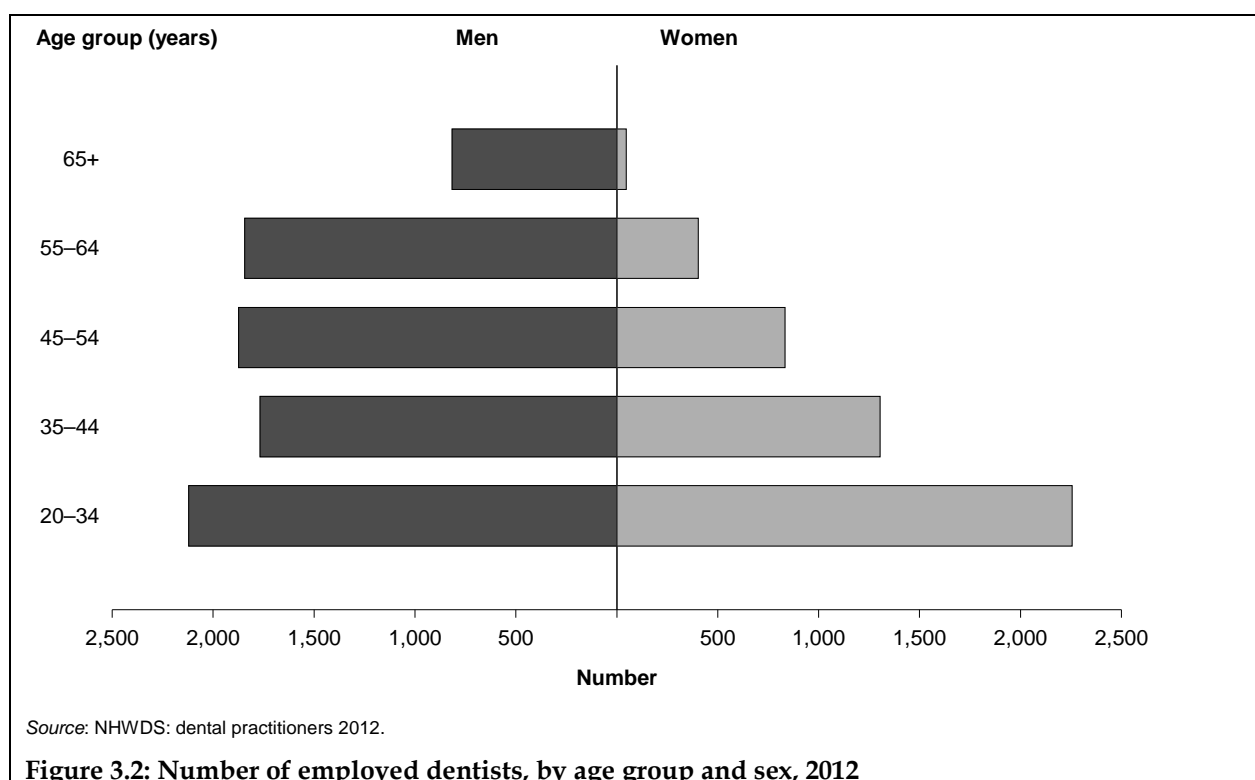
The remainder of this chapter focuses on the characteristics of dentists employed in Australia (excluding those provisionally registered).

Across Australia, the overall supply of employed dentists in 2012 was 56.9 FTE per 100,000 population, up from 55.4 FTE per 100,000 population in 2011 (Table 2.4).

### Age and sex

In 2012, the average age of employed dentists was 43.4. Over one third of employed dentists were women (36.5%) (Table 3.4).

There were more men than women across all age groups except the youngest (20–34), with the most men in the 45–54 age group (1,874), followed by the 55–64 age group (1,844). The 20–34 age group had slightly more women than men (2,256 compared with 2,121, respectively) (Figure 3.2).



## Aboriginal and Torres Strait Islander dentists

There were 21 employed dentists who identified as Aboriginal or Torres Strait Islander, representing about 0.2% of employed dentists who responded to the question in the Dental Workforce Survey.

## Country of initial qualification

Of all employed dentists, 9,139 received their initial dentistry qualification in Australia (68.9%). Among dentists who obtained their initial qualification overseas (excluding New Zealand), the proportion of women was nearly a half (46.6%) and much higher than those who obtained their initial qualification in Australia. Those employed dentists who received their initial qualification in Australia reported a higher average age (44.2) than those with initial qualifications from New Zealand or another country (40.2 and 42.1, respectively) (Table 3.4).

**Table 3.4: Employed dentists, by country of initial qualification, selected characteristics, 2012**

Country of initial qualification	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
Australia	9,139	44.2	25.7	33.2	37.2	39.4
New Zealand	607	40.2	18.7	36.8	36.4	2.6
Other country	3,042	42.1	18.8	46.6	36.7	12.9
Not stated/inadequately described	477	40.2	15.8	34.9	37.3	2.1
<b>Total</b>	<b>13,266</b>	<b>43.4</b>	<b>23.4</b>	<b>36.5</b>	<b>37.0</b>	<b>56.9</b>

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

Source: NHWDS: dental practitioners 2012.

## Fields of dentistry

### Role in dentistry

The principal role in dentistry describes the type of work undertaken by employed dentists. The 2012 survey categorised roles as clinician and non-clinician. Clinicians spend the majority of their time working in clinical practice. The non-clinical roles comprised administrator, teacher/educator, researcher and other.

In 2012, the largest group was clinicians, accounting for 96.2% of employed dentists. The smallest group was researchers, accounting for 0.4% of employed dentists.

Dentists working in a clinical role were, on average, younger than non-clinicians (43.1 years compared with 51.2, respectively). Also, over three quarters (77.3%) of clinicians were aged under 55 compared with nearly three fifths (56.8%) of non-clinicians (Table 3.5).

**Table 3.5: Employed dentists, by principal role of main job, selected characteristics, 2012**

Principal role of main job	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
Clinician <sup>(b)</sup>	12,767	43.1	22.7	36.5	37.1	54.9
<i>Non-clinician</i>	<i>499</i>	<i>51.2</i>	<i>43.2</i>	<i>36.8</i>	<i>34.3</i>	<i>2.0</i>
Administrator	138	50.9	41.1	39.9	33.6	0.5
Teacher/educator	214	55.4	56.7	30.4	31.9	0.8
Researcher	57	46.3	n.p.	n.p.	39.5	0.3
Other	90	45.0	n.p.	n.p.	37.9	0.4
<b>Total</b>	<b>13,266</b>	<b>43.4</b>	<b>23.4</b>	<b>36.5</b>	<b>37.0</b>	<b>56.9</b>

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

(b) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

### Area of dentistry

Respondents of the Dental Workforce Survey were asked to report the principal area of their main job in dentistry in the week before the survey. (See Appendix B for detailed descriptions of the work of the different dental specialties.) Nineteen response categories were provided, with only 1 response allowed. Table 3.6 provides these responses disaggregated by selected characteristics of the respondent.

General dental practice was the most common area of main job, with 73.3% of all employed dentists working in this area. The area of main job with the highest proportion of women was paedodontics (63.7%).

Dentists whose principal area of work is general dental practice are a young group compared to dental specialists, with an average age of 42.6. More than 1 in 5 (21.7%) were aged 55 and over (Table 3.6). Dental specialists, by comparison, were slightly older at 49.9 years and more than a third (36.6%) were aged 55 and over (Table C1). However, dental specialists were less likely to be women (22.1% compared to 38.1% among those who work in general dental practice) and worked on average more hours per week (39.1 compared to 36.8, respectively) (Table 3.6).

**Table 3.6: Employed dentists, by principal area of main job, selected characteristics, 2012**

Principal area of main job	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
General dental practice	9,719	42.6	21.7	38.1	36.8	41.4
Dento-maxillofacial radiology	14	53.7	n.p.	n.p.	34.8	0.1
Endodontics	151	45.9	25.0	19.9	39.7	0.7
Oral and maxillofacial surgery	185	47.7	32.4	8.5	44.7	1.0
Oral surgery	101	44.9	28.9	11.5	35.2	0.4
Oral medicine	33	45.2	n.p.	n.p.	39.6	0.2
Oral pathology	14	50.0	n.p.	n.p.	39.8	0.1
Orthodontics	549	49.3	38.2	23.5	37.5	2.4
Paedodontics	148	42.7	19.8	63.7	37.1	0.6
Periodontics	203	46.1	29.7	32.9	38.0	0.9
Prosthodontics	256	47.8	33.3	16.8	40.7	1.2
Public health dentistry	371	45.0	30.3	54.0	35.4	1.5
Special needs dentistry	45	49.8	n.p.	n.p.	33.7	0.2
Dental hygiene	20	47.2	n.p.	n.p.	38.2	0.1
Dental therapy	163	42.4	18.5	34.7	37.6	0.7
Dental prosthetic	33	57.1	n.p.	n.p.	32.0	0.1
Oral health therapy	24	44.6	n.p.	n.p.	38.0	0.1
Forensic odontology	10	59.9	n.p.	n.p.	28.6	—
Other	98	52.2	n.p.	n.p.	32.4	0.4
Not stated/inadequately described	1,127	42.0	19.2	34.4	37.4	4.9
<b>Total</b>	<b>13,266</b>	<b>43.4</b>	<b>23.4</b>	<b>36.5</b>	<b>37.0</b>	<b>56.9</b>

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

Source: NHWDS: dental practitioners 2012.

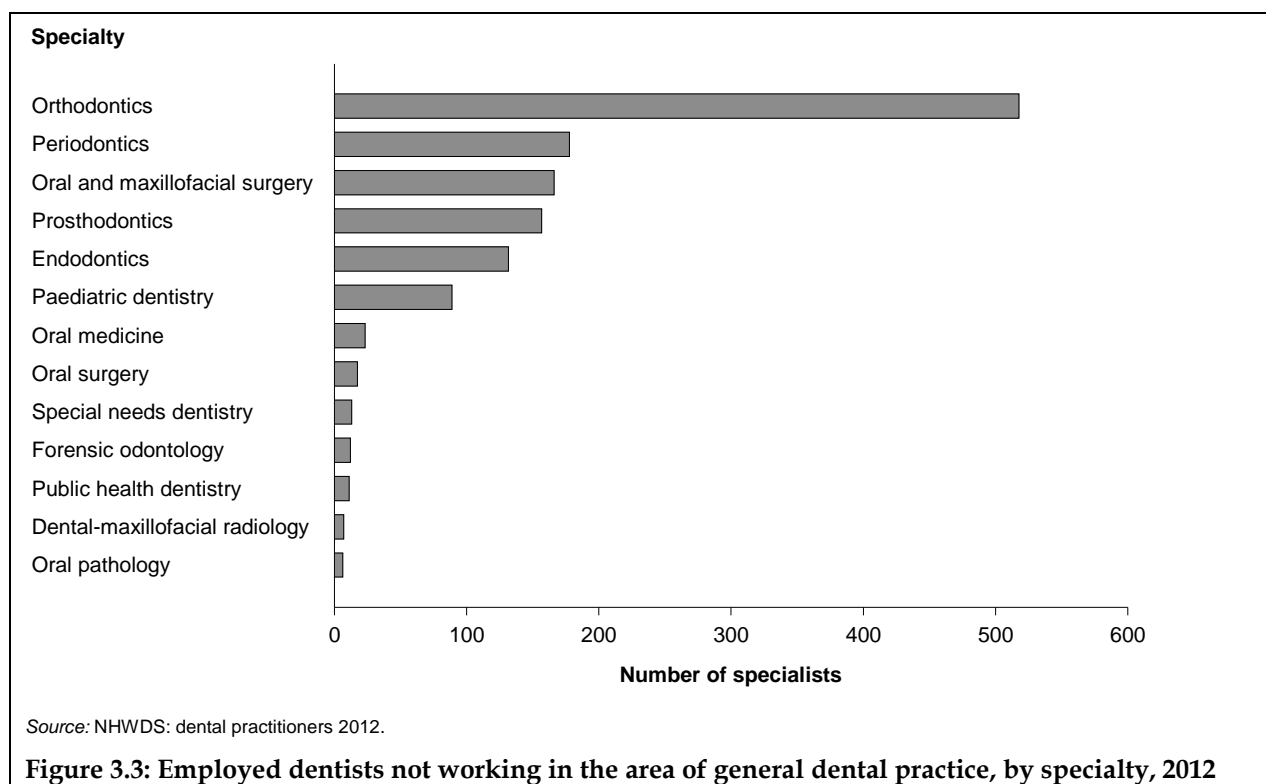


## Dental specialties

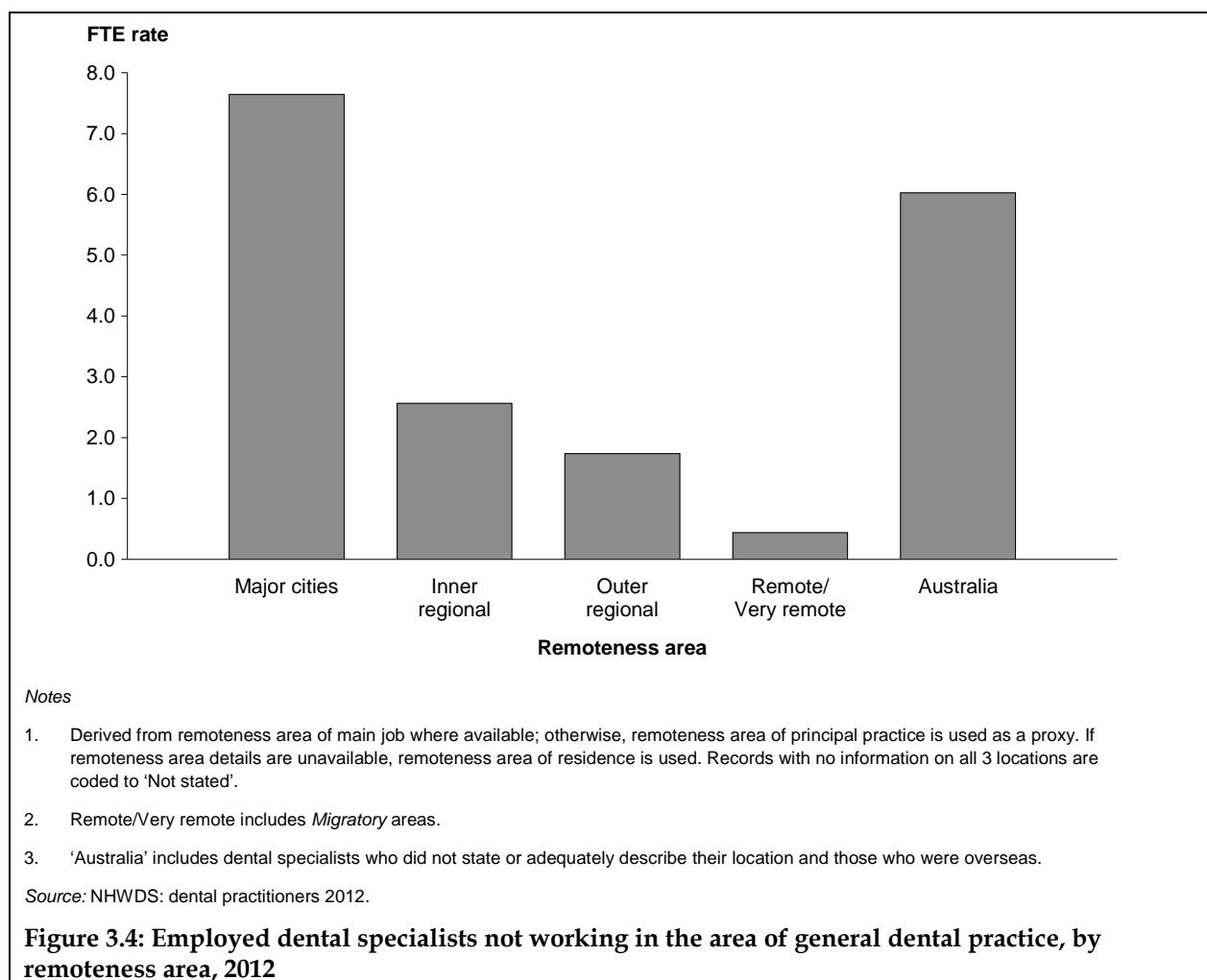
The Australian Health Workforce Ministerial Council has approved the Dental Board of Australia's list of specialties and specialist titles (see Appendix B). Dentists who have the necessary qualifications in the approved specialties and meet the other requirements for specialist and general registration are included on the Specialist Register and their specialties are recorded as part of the NRAS data.

In 2012, there were 1,330 employed dentists not working in the area of general dental practice and registered to practise in a dental specialty. The largest group of employed dentists not working in general dental practice with a specialty was orthodontists (518 or 39.0%) and the smallest group with a specialty was registered to practise in oral pathology (6 or 0.4%) (Figure 3.3 and Table C1).

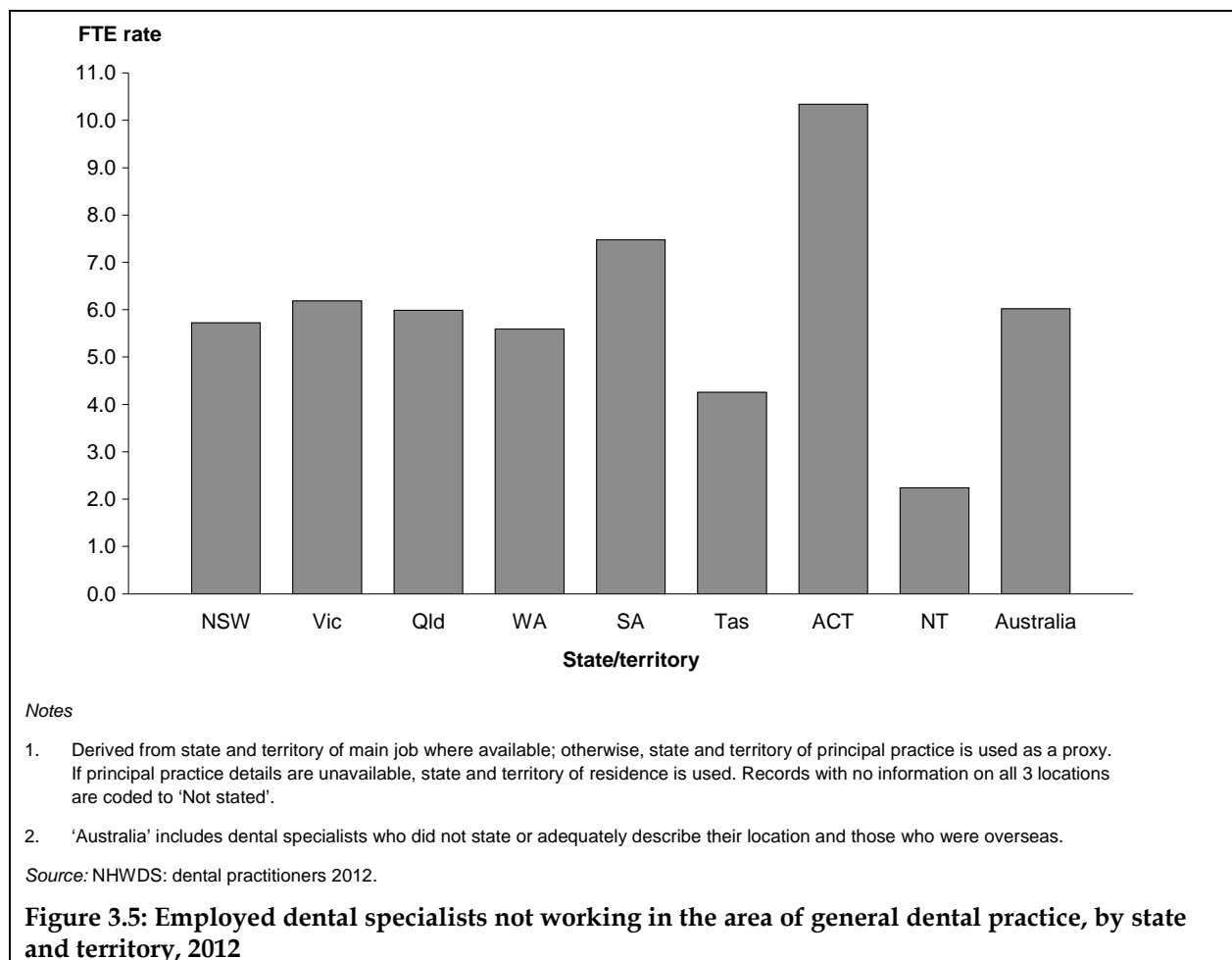
Women were most highly represented in the specialty of periodontics (26.3%) and were least represented among the oral and maxillofacial surgeons (8.5%) (Table C1).



The majority of dental specialists not working in general dental practice were employed in *Major cities* (89.1%) and in private practice (75.0%). The highest rate of dental specialists was also seen in *Major cities* (7.6 FTE per 100,000). *Major cities* had the highest proportion of dental specialists who were women (23.3%) (Figure 3.4 and Table C2).



The jurisdiction with the highest FTE rate per 100,000 population for dental specialists was the Australian Capital Territory (10.3), and the lowest was the Northern Territory with an FTE rate of 2.2 (Figure 3.5). Victoria had the highest proportion of dental specialists who were women (27.3%) (Table C3).



## Work setting

Dentists were asked to indicate the setting of their main job in dentistry in the week before completing the survey.

Private practice was the most commonly reported work setting among employed dentists (79.7% of those working in a clinical role and 77.3% of all dentists, respectively).

Dentists working in private practice on average worked about 37 hours per week—37.4 for clinicians and 37.3 for all dentists (Table 3.7).

**Table 3.7: Employed dentists, by work setting of main job and clinician<sup>(a)</sup> status, number and average weekly hours worked, 2012**

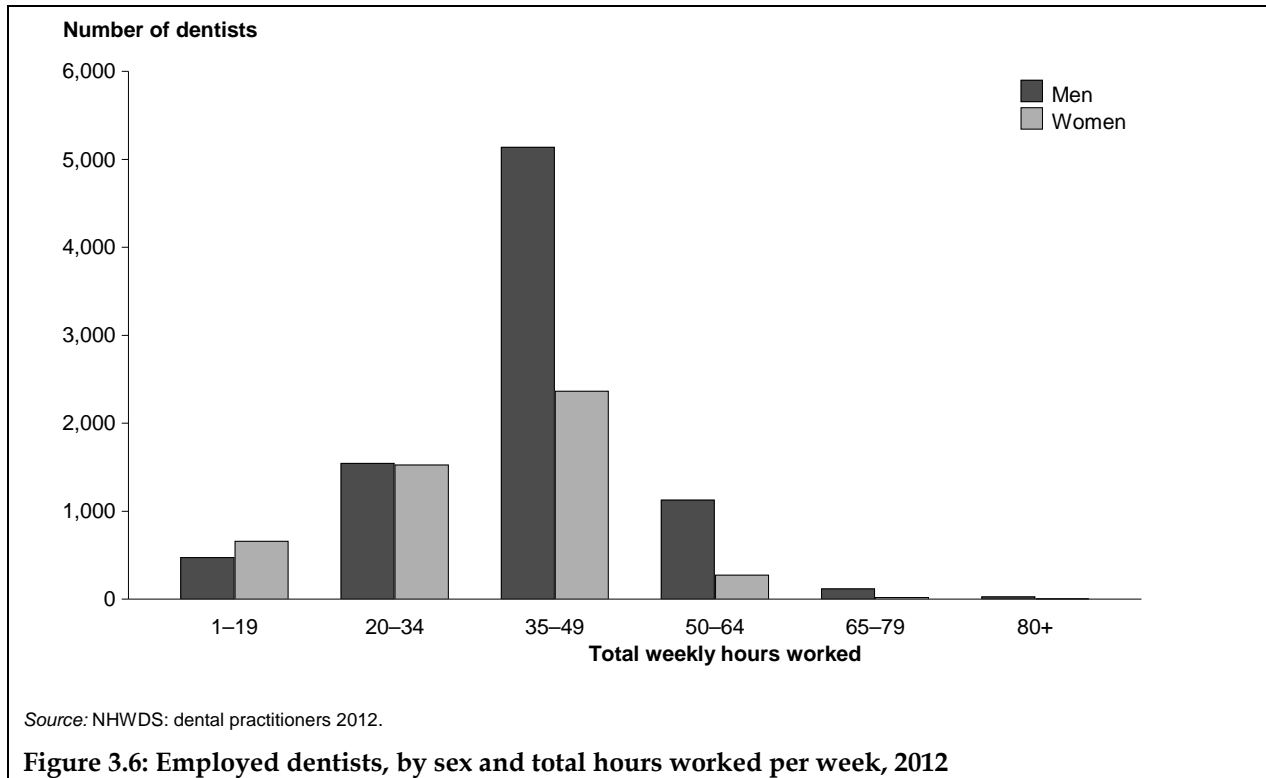
Work setting of main job	Clinician <sup>(a)</sup>		Total dentists	
	Number	Average weekly hours worked	Number	Average weekly hours worked
Private practice	10,179	37.4	10,254	37.3
Aboriginal health service	49	33.3	54	32.5
Community healthcare services	409	34.6	435	34.5
Hospital	698	36.7	773	36.4
Residential healthcare services	15	31.0	15	31.0
Commercial/business services	51	37.6	66	38.1
Educational facility	92	35.1	282	35.9
Correctional services	10	31.4	10	31.4
Defence forces	109	35.7	118	36.1
Other government department or agency	85	36.0	109	36.1
Other	113	32.9	147	31.4
Not stated/inadequately described	956	37.1	1,001	37.3
<b>Total</b>	<b>12,767</b>	<b>37.1</b>	<b>13,266</b>	<b>37.0</b>

(a) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

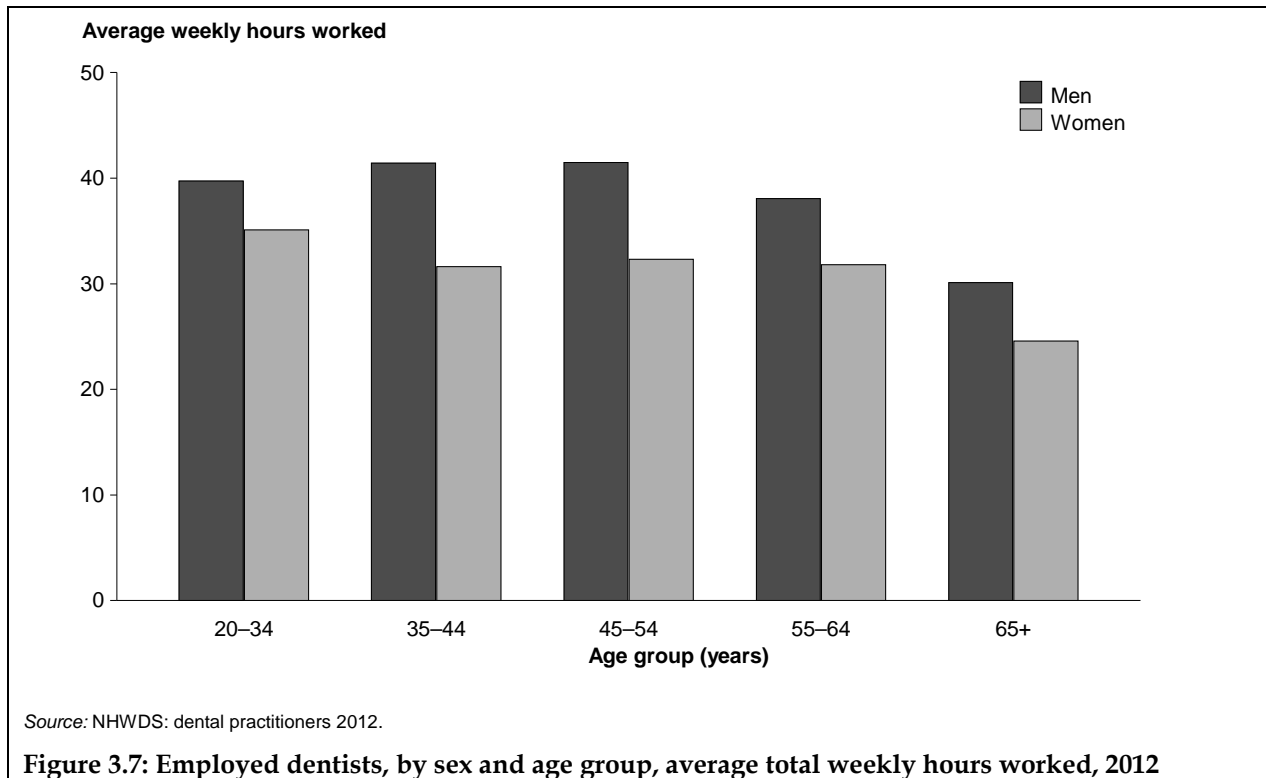
Source: NHWDS: dental practitioners 2012.

## Working hours

On average, employed dentists worked 37.0 hours per week in 2012 (Table 3.7). Almost a third (31.7%) of dentists worked part time (less than 35 hours per week) (Figure 3.6).



Male dentists worked 39.2 hours per week on average, while female dentists worked 33.3 hours on average (Table 3.8). This gap remained relatively constant across age groups (Figure 3.7).



## States and territories

On average, employed dentists in Tasmania worked the most weekly hours (38.5) while those in South Australia worked the least (35.5). Across all jurisdictions, female dentists reported working fewer average weekly hours than their male counterparts (Table 3.8).

**Table 3.8: Employed dentists, by state and territory<sup>(a)</sup> and sex, average total weekly hours worked, 2012**

Sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Men	40.0	38.5	39.6	37.9	38.1	38.9	40.0	37.8	39.2
Women	34.0	32.6	34.3	32.6	31.1	36.1	34.1	34.6	33.3
<b>Total</b>	<b>37.9</b>	<b>36.0</b>	<b>37.8</b>	<b>35.8</b>	<b>35.5</b>	<b>38.5</b>	<b>37.7</b>	<b>36.7</b>	<b>37.0</b>

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

(b) Includes dentists who did not state or adequately describe their location, and those who were overseas.

Source: NHWDS: dental practitioners 2012.

## Remoteness areas

On average, dentists working in *Outer regional* areas worked the most weekly hours (37.7) in 2012, while those in *Major cities* and *Remote/Very remote* areas worked the least (37.0) (Table 3.9).

**Table 3.9: Employed dentists, by remoteness area<sup>(a)</sup> and sex, average total weekly hours worked, 2012**

Sex	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Men	39.4	38.3	38.9	37.9	39.2
Women	33.0	34.7	34.9	35.4	33.3
<b>Total</b>	<b>37.0</b>	<b>37.2</b>	<b>37.7</b>	<b>37.0</b>	<b>37.0</b>

(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) Includes *Migratory* areas.

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

Source: NHWDS: dental practitioners 2012.

## Employment sector

Dentists in the private sector worked more hours per week than their public sector counterparts (32.0 hours compared with 20.7 hours per week on average, respectively) (Table 3.10).

**Table 3.10: Employed dentists, by employment sector, selected characteristics, 2012**

Characteristic	Private sector	Public sector
Number	11,796	2,563
Average age	43.3	42.4
Aged 55 and over (per cent)	22.7	22.8
Women (per cent)	35.0	45.1
Average weekly hours worked in sector	32.0	20.7
<b>FTE clinician number<sup>(a)</sup></b>	<b>9,933</b>	<b>1,395</b>

(a) Full-time equivalent (FTE) clinician number. FTE is based on clinical hours worked in sector (see Glossary).

Note: Dentists appear in each sector they reported working in and so may be included in both sectors.

Source: NHWDS: dental practitioners 2012.

## Geographic profile of employed dentists

### Remoteness areas

The supply of employed dentists in Australia was highest in *Major cities* (64.3 FTE per 100,000 population) and lowest in *Remote/Very remote* areas (21.5 FTE per 100,000 population) (Table 3.11).

**Table 3.11: Employed dentists, by remoteness area<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Number	10,567	1,794	745	116	13,266
Average age	43.5	42.8	43.1	42.6	43.4
Aged 55 and over (per cent)	22.9	24.9	26.5	23.4	23.4
Women (per cent)	38.0	31.1	29.7	38.2	36.5
Average weekly hours worked	37.0	37.2	37.7	37.0	37.0
<b>FTE rate<sup>(d)</sup></b>	<b>64.3</b>	<b>42.2</b>	<b>36.1</b>	<b>21.5</b>	<b>56.9</b>

(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 dentists who did not state or adequately describe their location, and those who were overseas.

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

Source: NHWDS: dental practitioners 2012.

## States and territories

In 2012, the highest number of employed dentists was in New South Wales (4,395), followed by Victoria (3,232). The FTE rate was highest in the Australian Capital Territory, with 65.1 FTE per 100,000 population, while the lowest rate was in the Northern Territory (36.7) (Table 3.12).

**Table 3.12: Employed dentists, by state and territory<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Number	4,395	3,232	2,627	1,416	1,037	191	246	89	13,266
Average age	44.6	42.8	42.2	42.2	44.3	45.3	44.3	44.3	43.4
Aged 55 and over (per cent)	25.2	21.4	20.3	21.7	30.0	32.4	24.6	n.p.	23.4
Women (per cent)	34.9	40.9	34.1	39.1	36.0	14.7	38.8	n.p.	36.5
Average weekly hours worked	37.9	36.0	37.8	35.8	35.5	38.5	37.7	36.7	37.0
<b>FTE rate<sup>(c)</sup></b>	<b>60.1</b>	<b>54.5</b>	<b>57.3</b>	<b>54.9</b>	<b>58.6</b>	<b>37.8</b>	<b>65.1</b>	<b>36.7</b>	<b>56.9</b>

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

(b) Includes dentists who did not state or adequately describe their location, and those who were overseas.


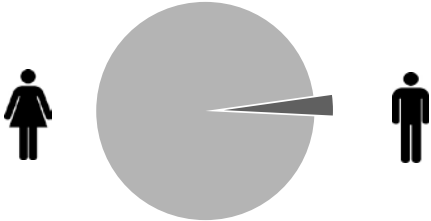



(c) Full-time equivalent (FTE) number per 100,000 population. FTE is based on total weekly hours worked (see Glossary).

Source: NHWDS: dental practitioners 2012.



## 4 Dental hygienist workforce

### At a glance

	<p>In 2012, there were 1,600 registered dental hygienists, 1,425 of whom were employed in dental hygiene (93.1%).</p>
	<p>Almost all registered dental hygienists were women (94.9%) in 2012.</p>
	<p>In 2012, the average age of employed dental hygienists was 37.4 and 5.7% were aged 55 or over.</p>
	<p>On average, employed dental hygienists worked 29.4 hours per week in 2012.</p>
	<p>In 2012, most employed dental hygienists worked in private practice (87.3%).</p>

Source: NHWDS: dental practitioners 2012.

This chapter provides details about the dental hygienist workforce in Australia. For information about what dental hygienists do, see Box 4.1.

**Box 4.1: Who is a dental hygienist?**

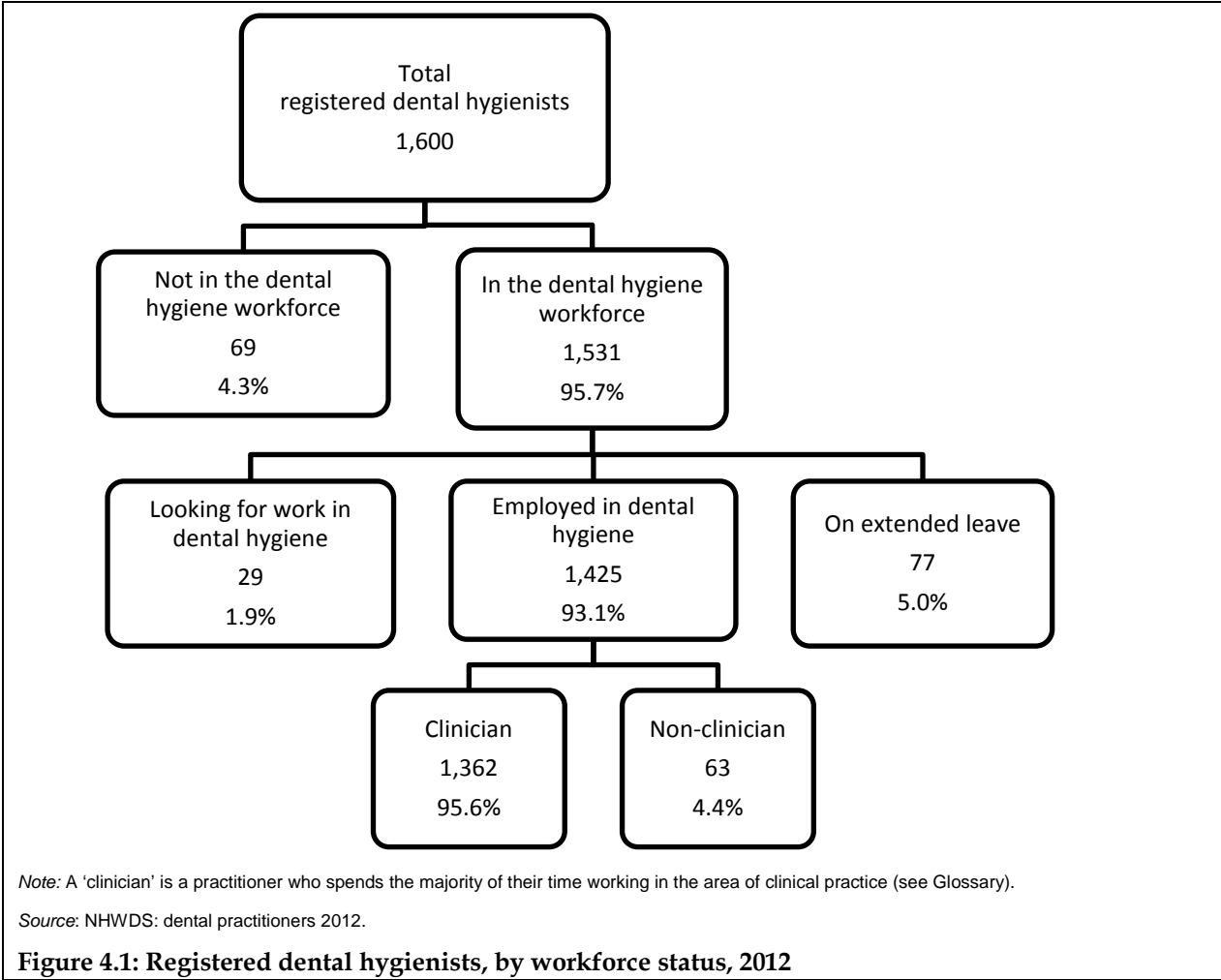
Dental hygienists provide oral health assessment, diagnosis, treatment, management and education for the prevention of oral disease to promote healthy oral behaviours to patients of all ages. Their services may include periodontal (gum) treatment, preventive services and other oral care.

Dental hygienists may only work within a structured professional relationship with a dentist or dental specialist.

Source: DBA 2013a.

**Workforce status**

In 2012, there were 1,600 registered dental hygienists in Australia. The majority of these were in the dental hygienist workforce (1,531), of whom 93.1% (1,425) were employed. Of the remainder, 29 were looking for work in dental hygiene and 77 were on extended leave (Figure 4.1).



Most registered dental hygienists held a general registration (98.1%). The average age of dental hygienists was 37.1 years, and more than 9 in 10 (94.9%) were women (Table 4.1).

**Table 4.1: Registered dental hygienists, by registration type, selected characteristics, 2012**

Registration type	Number	Average age	Aged 55 and over (per cent)	Women (per cent)
General	1,570	37.1	5.6	94.9
Limited	4	44.0	n.p.	75.0
Non-practising	26	37.1	—	100.0
<b>Total</b>	<b>1,600</b>	<b>37.1</b>	<b>5.6</b>	<b>94.9</b>

Source: NHWDS: dental practitioners 2012.

From 2011 to 2012, the number of dental hygienists in the dental hygiene workforce increased by 36.1%, from 1,125 to 1,531 (Table 4.2). This large increase may, in part, be due to a change in the methodology to assign a primary practitioner type to those dental hygienists registered in more than 1 division of general registration (see Box A1). Therefore, comparison of 2011 and 2012 data should be made with caution.

**Table 4.2: Registered dental hygienists, by workforce status, 2011 and 2012**

Workforce status	2011	2012	Change between 2011 and 2012 (per cent)
<b><i>In the dental hygiene workforce</i></b>	<b>1,125</b>	<b>1,531</b>	<b>36.1</b>
Employed in dental hygiene	1,047	1,425	36.1
<i>Looking for work in dental hygiene</i>	13	29	121.7
Employed elsewhere	7	9	21.8
Not employed	6	21	234.3
On extended leave of 3 months or more	65	77	19.0
<b><i>Not in dental hygiene workforce</i></b>	<b>69</b>	<b>69</b>	<b>-0.1</b>
Overseas	14	9	-36.4
<i>Not looking for work in dental hygiene</i>	48	57	17.5
Employed elsewhere	13	13	-2.5
Not employed	35	44	24.9
Retired from regular work	6	3	-51.2
<b>Total registered dental hygienists</b>	<b>1,194</b>	<b>1,600</b>	<b>34.0</b>

*Notes*

1. The 2011 and 2012 data are not directly comparable due to a change in the methodology to assign a primary practitioner type to those practitioners registered in more than 1 division of general registration.
2. For 2011, data supplied by the AHPRA has been updated (October 2013) and therefore will not match data previously published.

Sources: NHWDS: dental practitioners, 2011 and 2012.

The number of registered dental hygienists in the dental hygienist workforce ranged from 385 in New South Wales to 11 in the Northern Territory (Table 4.3).

**Table 4.3: Registered dental hygienists, by workforce status and principal role of main job, states and territories<sup>(a)</sup>, 2012**

<b>Workforce status</b>	<b>NSW</b>	<b>Vic</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>ACT</b>	<b>NT</b>	<b>Australia<sup>(b)</sup></b>
<b><i>In the dental hygiene workforce</i></b>	<b>385</b>	<b>268</b>	<b>261</b>	<b>263</b>	<b>270</b>	<b>17</b>	<b>53</b>	<b>11</b>	<b>1,531</b>
<i>Employed in dental hygiene</i>	350	252	249	247	247	17	49	11	1,425
Clinician <sup>(c)</sup>	336	241	239	240	230	n.p.	n.p.	11	1,362
Non-clinician	14	11	10	7	17	n.p.	n.p.	—	63
<i>Looking for work in dental hygiene</i>	11	3	4	4	5	—	—	—	29
Employed elsewhere	5	n.p.	—	—	n.p.	—	—	—	9
Not employed	6	n.p.	4	4	n.p.	—	—	—	21
On extended leave of 3 months or more	24	12	7	12	17	—	4	—	77
<b><i>Not in dental hygiene workforce</i></b>	<b>18</b>	<b>7</b>	<b>3</b>	<b>23</b>	<b>8</b>	<b>—</b>	<b>—</b>	<b>n.p.</b>	<b>69</b>
Overseas	2	—	n.p.	n.p.	—	—	—	—	9
<i>Not looking for work in dental hygiene</i>	15	5	n.p.	22	8	—	—	n.p.	57
Employed elsewhere	3	—	n.p.	5	n.p.	—	—	—	13
Not employed	12	5	—	17	n.p.	—	—	n.p.	44
Retired from regular work	n.p.	n.p.	—	—	—	—	—	—	3
<b>Total registered dental hygienists</b>	<b>404</b>	<b>275</b>	<b>264</b>	<b>286</b>	<b>278</b>	<b>17</b>	<b>53</b>	<b>13</b>	<b>1,600</b>

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

(b) Includes dental hygienists who did not state or adequately describe their location, and those who were overseas.

(c) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

## Dental hygienists employed in dental hygiene

A person who reported working in dental hygiene in the week before the survey was considered to be an 'employed dental hygienist' (see Glossary).

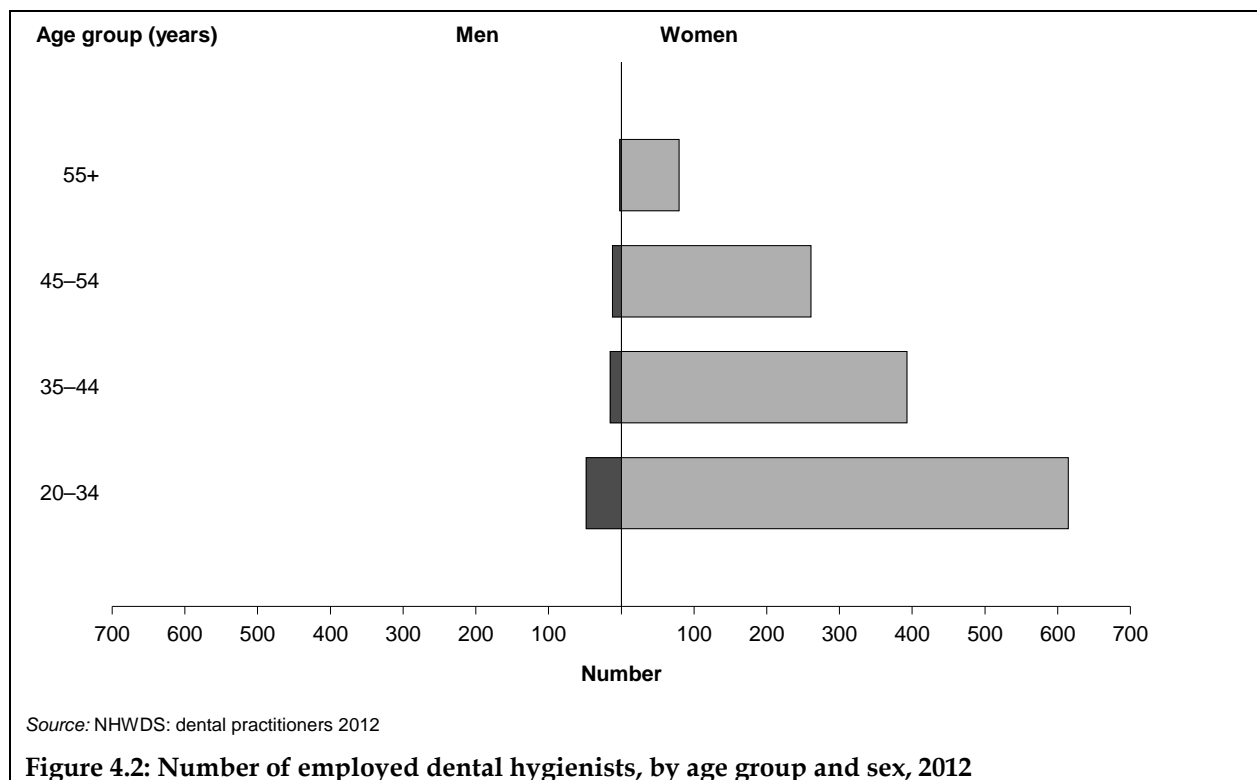
The remainder of this chapter focuses on the characteristics of dental hygienists employed in Australia (excluding those provisionally registered).

Across Australia, the overall supply of employed dental hygienists in 2012 was 4.9 FTE per 100,000 population (Table 4.4).

### Age and sex

In 2012, the average age of employed dental hygienists was 37.4. Almost all employed dental hygienists were women (94.6%) (Table 4.4).

There were more women than men across all age groups, with the most women in the 20–34 age group (615), followed by the 35–44 age group (393). Among male dental hygienists, the 20–34 age group was the largest (48) (Figure 4.2).



## Aboriginal and Torres Strait Islander dental hygienists

There were 7 employed dental hygienists who identified as Aboriginal or Torres Strait Islander, representing about 0.5% of employed dental hygienists who responded to the question in the Dental Workforce Survey.

## Country of initial qualification

Of all employed dental hygienists, 1,155 received their initial dental hygienist qualification in Australia (81.1%). Those employed dental hygienists who received their initial qualification overseas (excluding New Zealand) were, on average, older than those with an Australian initial qualification (45.6 compared with 36.6, respectively) (Table 4.4).

**Table 4.4: Employed dental hygienists, by country of initial qualification, selected characteristics, 2012**

Country of initial qualification	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
Australia	1,155	36.6	4.3	94.9	29.4	3.9
New Zealand	65	33.6	n.p.	n.p.	31.5	0.2
Other country	144	45.6	17.7	96.5	27.1	0.5
Not stated/inadequately described	60	37.0	n.p.	n.p.	33.4	0.2
<b>Total</b>	<b>1,425</b>	<b>37.4</b>	<b>5.7</b>	<b>94.6</b>	<b>29.4</b>	<b>4.9</b>

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

Source: NHWDS: dental practitioners 2012.

## Fields of dental hygiene

### Role in dental hygiene

The principal role in dental hygiene describes the types of work undertaken by employed dental hygienists. The 2012 survey categorised roles as 'clinician' and 'non-clinician'. The non-clinical roles comprised administrator, teacher/educator, researcher and other.

In 2012, the largest group was clinicians, accounting for 95.6% of employed dental hygienists. The smallest group was researchers, accounting for 0.3% of employed dental hygienists.

Dental hygienists employed in a clinical role worked 29.4 hours per week on average and more than 9 in 10 (94.6%) were women. The high proportion of women may, in part, explain the low number of weekly hours worked as women have a greater propensity to work part time (Table 4.5).

**Table 4.5: Employed dental hygienists, by principal role of main job, selected characteristics, 2012**

Principal role of job	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
Clinician <sup>(b)</sup>	1,362	37.1	5.1	94.6	29.4	4.6
<i>Non-clinician</i>	63	44.5	<i>n.p.</i>	<i>n.p.</i>	29.3	0.2
Administrator	19	44.1	<i>n.p.</i>	<i>n.p.</i>	30.4	0.1
Teacher/educator	25	48.1	<i>n.p.</i>	<i>n.p.</i>	26.2	0.1
Researcher	4	46.1	<i>n.p.</i>	<i>n.p.</i>	29.5	0.0
Other	15	38.6	<i>n.p.</i>	<i>n.p.</i>	33.1	0.1
<b>Total</b>	<b>1,425</b>	<b>37.4</b>	<b>5.7</b>	<b>94.6</b>	<b>29.4</b>	<b>4.9</b>

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

(b) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

### Area of dental hygiene

Respondents of the Dental Workforce Survey were asked to report the principal area of their main job in dental hygiene in the week before the survey. Nineteen response categories were provided, with only 1 response allowed. Table 4.6 provides these responses disaggregated by selected characteristics of the respondent.

Dental hygiene was the most common area of practice, with 75.1% of all employed dental hygienists working in this area (Table 4.6).

**Table 4.6: Employed dental hygienists, by principal area of main job, selected characteristics, 2012**

Principal area of main job	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
General dental practice	9	44.6	11.5	100.0	22.3	—
Dento-maxillofacial radiology	—	—	—	—	—	—
Endodontics	—	—	—	—	—	—
Oral and maxillofacial surgery	—	—	—	—	—	—
Oral surgery	—	—	—	—	—	—
Oral medicine	1	n.p.	—	n.p.	n.p.	—
Oral pathology	—	—	—	—	—	—
Orthodontics	89	37.5	n.p.	n.p.	29.1	0.3
Paedodontics	—	—	—	—	—	—
Periodontics	17	41.6	n.p.	n.p.	27.7	0.1
Prosthodontics	—	—	—	—	—	—
Public health dentistry	3	50.4	n.p.	n.p.	28.2	—
Special needs dentistry	1	n.p.	—	n.p.	n.p.	—
Dental hygiene	1,070	37.4	5.4	95.4	28.6	3.5
Dental therapy	13	33.8	—	n.p.	33.4	0.1
Dental prosthetic	1	n.p.	—	n.p.	n.p.	—
Oral health therapy	83	32.8	n.p.	n.p.	33.1	0.3
Forensic odontology	—	—	—	—	—	—
Other	9	46.1	n.p.	n.p.	37.2	—
Not stated/inadequately described	127	38.7	7.8	92.5	33.5	0.5
<b>Total</b>	<b>1,425</b>	<b>37.4</b>	<b>5.7</b>	<b>94.6</b>	<b>29.4</b>	<b>4.9</b>

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

Source: NHWDS: dental practitioners 2012.

## Work setting

Dental hygienists were asked to indicate the setting of their main job in dental hygiene in the week before completing the survey.

The most commonly reported work setting among employed dental hygienists was private practice (89.5% of those working in a clinical role and 87.3% of all dental hygienists, respectively).

Dental hygienists working in private practice on average worked about 29 hours per week – 28.9 for clinicians and 29.0 for all dental hygienists (Table 4.7).

**Table 4.7: Employed dental hygienists, by work setting of main job and clinician<sup>(a)</sup> status, number and average weekly hours worked, 2012**

Work setting of main job	Clinician <sup>(a)</sup>		Total dental hygienists	
	Number	Average weekly hours worked	Number	Average weekly hours worked
Private practice	1,222	28.9	1,244	29.0
Aboriginal health service	2	n.p.	3	34.0
Community healthcare services	4	36.2	4	36.2
Hospital	6	30.0	10	24.6
Residential healthcare services	1	n.p.	1	n.p.
Commercial/business services	2	n.p.	2	n.p.
Educational facility	1	n.p.	26	28.2
Correctional services	—	—	—	—
Defence forces	10	30.8	10	30.8
Other government department or agency	—	—	—	—
Other	7	31.8	12	33.8
Not stated/inadequately described	105	33.9	112	33.5
<b>Total</b>	<b>1,362</b>	<b>29.4</b>	<b>1,425</b>	<b>29.4</b>

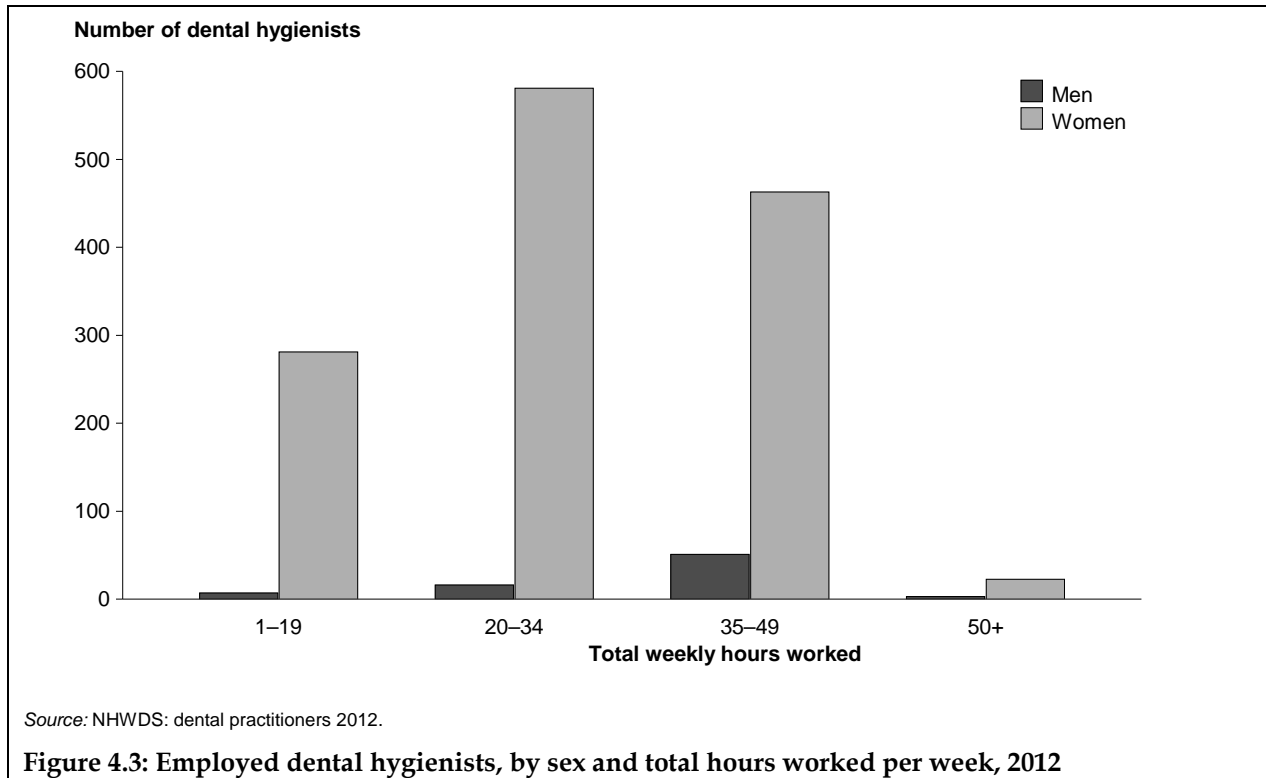
(a) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

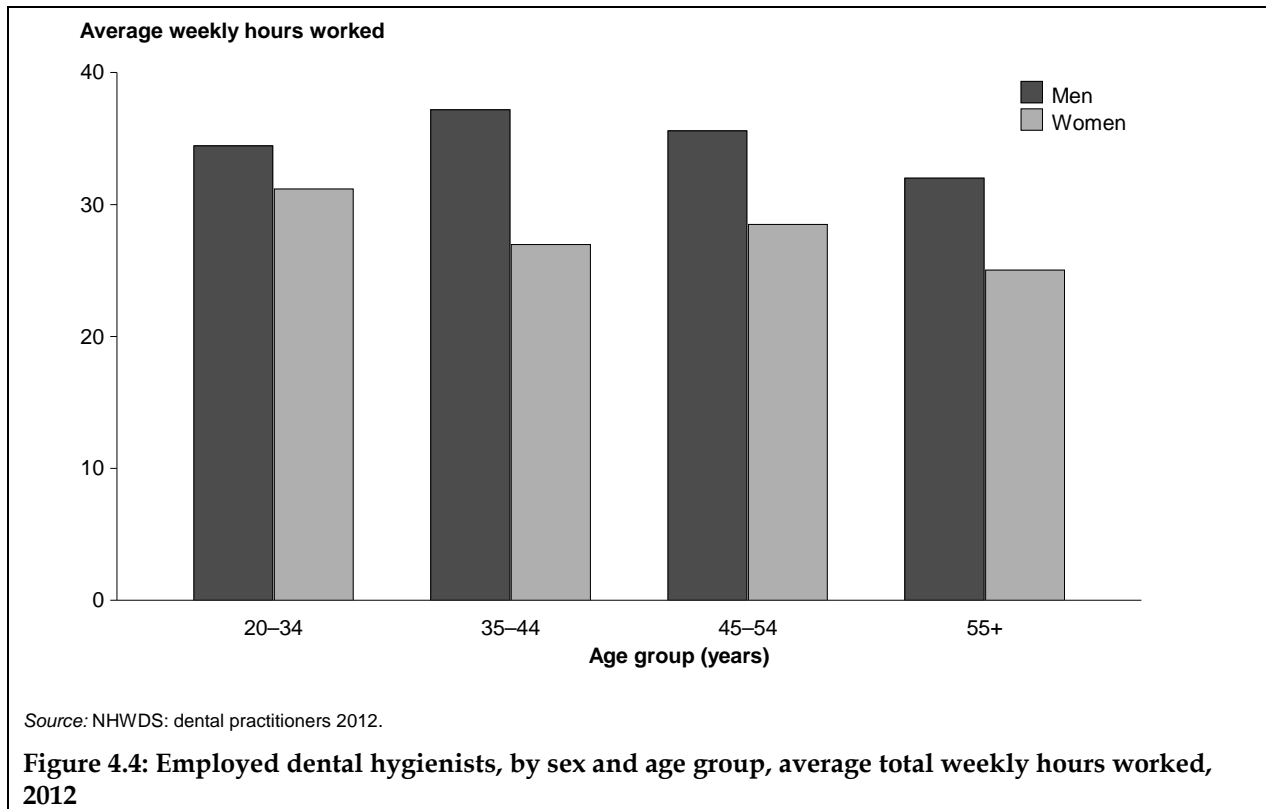
## Working hours

On average, employed dental hygienists worked 29.4 hours per week in 2012 (Table 4.8). About 3 in 5 (62.1%) dental hygienists worked part time (less than 35 hours per week) (Figure 4.3).





Male dental hygienists worked 35.1 hours per week on average, while female dental hygienists worked 29.1 hours on average (Table 4.10). In all age groups, men worked a greater number of average hours per week (Figure 4.4).



## States and territories

On average, employed dental hygienists in the Northern Territory worked the most weekly hours (37.1), while those in South Australia worked the least (27.7) (Table 4.8).

**Table 4.8: Employed dental hygienists, by state and territory<sup>(a)</sup> and sex, average total weekly hours worked, 2012**

Sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Men	32.1	37.4	35.7	36.9	34.3	—	—	—	35.1
Women	29.1	28.6	30.4	29.3	27.3	31.6	29.5	37.1	29.1
<b>Total</b>	<b>29.3</b>	<b>29.3</b>	<b>30.7</b>	<b>29.5</b>	<b>27.7</b>	<b>31.6</b>	<b>29.5</b>	<b>37.1</b>	<b>29.4</b>

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

(b) Includes dental hygienists who did not state or adequately describe their location, and those who were overseas.

Source: NHWDS: dental practitioners 2012.

## Remoteness areas

On average, dental hygienists working in *Remote/Very remote* areas worked the most weekly hours (32.6) in 2012, while those in *Inner regional* areas worked the least (29.2) (Table 4.9).

**Table 4.9: Employed dental hygienists, by remoteness area<sup>(a)</sup> and sex, average total weekly hours worked, 2012**

Sex	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Men	35.8	31.9	38.0	18.0	35.1
Women	29.0	29.0	30.0	34.1	29.1
<b>Total</b>	<b>29.3</b>	<b>29.2</b>	<b>30.3</b>	<b>32.6</b>	<b>29.4</b>

(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) Includes *Migratory* areas.

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

Source: NHWDS: dental practitioners 2012.

## Employment sector

Dental hygienists in the private sector worked more hours per week than their public sector counterparts (26.9 hours compared with 14.0 hours per week on average, respectively) (Table 4.10).

**Table 4.10: Employed dental hygienists, by employment sector, selected characteristics, 2012**

Characteristic	Private sector	Public sector
Number	1,369	107
Average age	37.1	43.0
Aged 55 and over (per cent)	5.3	18.1
Women (per cent)	94.5	94.1
Average weekly hours worked in sector	26.9	14.0
<b>FTE clinician number<sup>(a)</sup></b>	<b>970</b>	<b>40</b>

(a) Full-time equivalent (FTE) clinician number. FTE is based on clinical hours worked in sector (see Glossary).

Note: Dental hygienists appear in each sector they reported working in and so may be included in both sectors.

Source: NHWDS: dental practitioners 2012.

## Geographic profile of employed dental hygienists

### Remoteness areas

The supply of employed dental hygienists in Australia was highest in *Major cities* (5.8 FTE per 100,000 population) and lowest in *Remote/Very remote* areas (1.7 FTE per 100,000 population) (Table 4.11).

**Table 4.11: Employed dental hygienists, by remoteness area<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Number	1,192	149	72	10	1,425
Average age	37.3	37.8	37.5	39.1	37.4
Aged 55 and over (per cent)	5.6	7.3	n.p.	n.p.	5.7
Women (per cent)	94.7	92.6	n.p.	n.p.	94.6
Average weekly hours worked	29.3	29.2	30.3	32.6	29.4
<b>FTE rate<sup>(d)</sup></b>	<b>5.8</b>	<b>2.7</b>	<b>2.8</b>	<b>1.7</b>	<b>4.9</b>

(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 hygienists who did not state or adequately describe their location, and those who were overseas.

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

Source: NHWDS: dental practitioners 2012.

## States and territories

In 2012, the highest number of employed dental hygienists was in New South Wales (350), followed by Victoria (252). The FTE rate was highest in South Australia, with 10.9 FTE per 100,000 population, while the lowest was in Tasmania (2.8) (Table 4.12).

**Table 4.12: Employed dental hygienists, by state and territory<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Number	350	252	249	247	247	17	49	11	1,425
Average age	37.4	37.6	37.2	34.8	39.7	41.4	38.6	35.2	37.4
Aged 55 and over (per cent)	4.8	7.5	3.2	2.8	10.4	n.p.	n.p.	—	5.7
Women (per cent)	94.3	92.1	92.8	97.2	95.1	n.p.	n.p.	n.p.	94.6
Average weekly hours worked	29.3	29.3	30.7	29.5	27.7	31.6	29.5	37.1	29.4
<b>FTE rate<sup>(c)</sup></b>	<b>3.7</b>	<b>3.5</b>	<b>4.4</b>	<b>7.9</b>	<b>10.9</b>	<b>2.8</b>	<b>10.1</b>	<b>4.5</b>	<b>4.9</b>

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


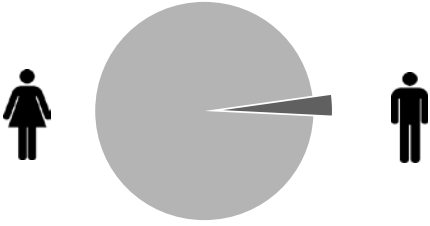



(b) Includes dental hygienists who did not state or adequately describe their location, and those who were overseas.

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

Source: NHWDS: dental practitioners 2012.

# 5 Dental therapist workforce

## At a glance

	<p>In 2012, there were 1,276 registered dental therapists, 1,117 of whom were employed in dental therapy (93.8%).</p>
	<p>Almost all registered dental therapists were women (96.8%) in 2012.</p>
	<p>In 2012, the average age of employed dental therapists was 46.4 and 20.4% were aged 55 or over.</p>
	<p>On average, employed dental therapists worked 29.4 hours per week in 2012.</p>
	<p>In 2012, the highest proportion of employed dental therapists reported working in an educational facility (38.7%).</p>

Source: NHWDS: dental practitioners 2012.

This chapter provides details about the dental therapist workforce in Australia. For information about what dental therapists do see Box 5.1.

**Box 5.1: Who is a dental therapist?**

Dental therapists provide oral health assessment, diagnosis, treatment, management and preventive services for children, adolescents and young adults and, if educated and trained in a program of study approved by the Dental Board of Australia, for adults of all ages.

Their services may include:

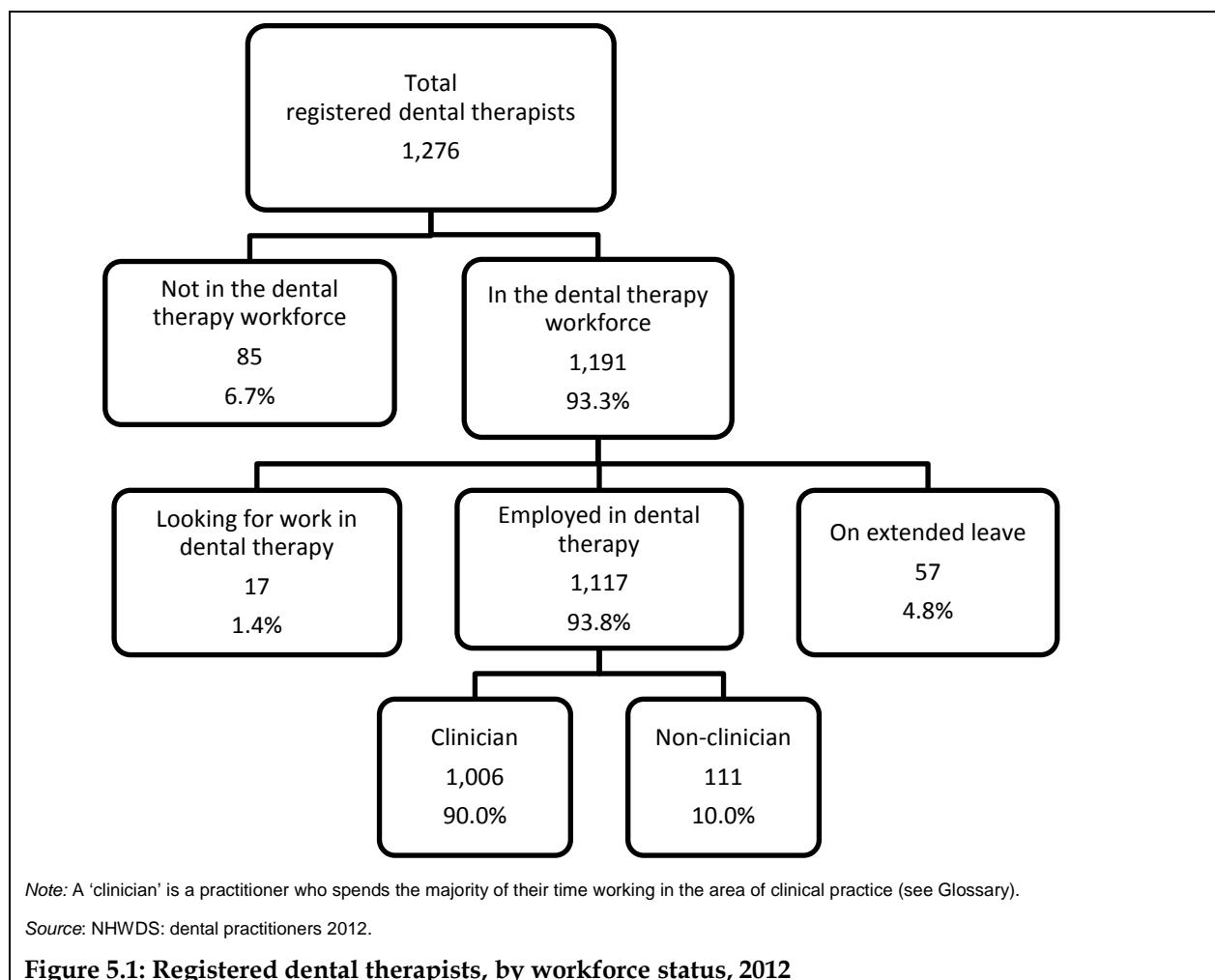
- restorative (fillings) treatment
- tooth removal
- additional oral care
- oral health promotion.

Dental therapists may only work within a structured professional relationship with a dentist or dental specialist.

*Source:* DBA 2013a.

## Workforce status

In 2012, there were 1,276 registered dental therapists in Australia. The majority of these were in the dental therapist workforce (1,191), of whom 93.8% (1,117) were employed. Of the remainder, 17 were looking for work in dental therapy and 57 were on extended leave (Figure 5.1).



Most registered dental therapists held a general registration (96.8%). Dental therapists with a general registration also reported the highest average age (45.9 years). Women comprised 96.8% of total registered dental therapists (Table 5.1).

**Table 5.1: Registered dental therapists, by registration type, selected characteristics, 2012**

Registration type	Number	Average age	Aged 55 and over (per cent)	Women (per cent)
General	1,235	45.9	19.6	96.7
Limited	2	30.5	—	100.0
Non-practising	39	44.9	12.8	100.0
<b>Total</b>	<b>1,276</b>	<b>45.8</b>	<b>19.4</b>	<b>96.8</b>

Source: NHWDS: dental practitioners 2012.

From 2011 to 2012, the number of dental therapists in the dental therapist workforce increased by 8.3%, from 1,100 to 1,191 (Table 5.2). This increase may be due, in part, to a change in the methodology to assign a primary practitioner type to those dental therapists registered in more than 1 division of general registration (see Box A1). Therefore, comparison of 2011 and 2012 data should be made with caution.

**Table 5.2: Registered dental therapists, by workforce status, 2011 and 2012**

<b>Workforce status</b>	<b>2011</b>	<b>2012</b>	<b>Change between 2011 and 2012 (per cent)</b>
<b><i>In the dental therapy workforce</i></b>	<b>1,100</b>	<b>1,191</b>	<b>8.3</b>
Employed in dental therapy	1,030	1,117	8.4
<i>Looking for work in dental therapy</i>	12	17	50.5
Employed elsewhere	5	8	50.4
Not employed	6	10	50.6
On extended leave of 3 months or more	58	57	-2.0
<b><i>Not in dental therapy workforce</i></b>	<b>63</b>	<b>85</b>	<b>35.0</b>
Overseas	3	7	105.8
<i>Not looking for work in dental therapy</i>	52	69	32.0
Employed elsewhere	32	30	-7.2
Not employed	20	39	96.2
Retired from regular work	8	10	26.2
<b>Total registered dental therapists</b>	<b>1,163</b>	<b>1,276</b>	<b>9.7</b>

*Notes*

1. The 2011 and 2012 data are not directly comparable due to a change in the methodology to assign a primary practitioner type to those practitioners registered in more than 1 division of general registration.
2. For 2011, data supplied by the AHPRA has been updated (October 2013) and therefore will not match data previously published.

Sources: NHWDS: dental practitioners, 2011 and 2012.

The number of registered dental therapists in the dental therapy workforce ranged from 353 in Western Australia to 15 in the Australian Capital Territory (Table 5.3).



**Table 5.3: Registered dental therapists, by workforce status and principal role of main job, states and territories<sup>(a)</sup>, 2012**

<b>Workforce status</b>	<b>NSW</b>	<b>Vic</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>ACT</b>	<b>NT</b>	<b>Australia<sup>(b)</sup></b>
<b><i>In the dental therapy workforce</i></b>	<b>229</b>	<b>193</b>	<b>223</b>	<b>353</b>	<b>110</b>	<b>51</b>	<b>15</b>	<b>18</b>	<b>1,191</b>
<i>Employed in dental therapy</i>	216	178	202	337	101	49	15	18	1,117
Clinician <sup>(c)</sup>	177	154	196	311	90	47	14	17	1,006
Non-clinician	39	24	6	27	11	n.p.	n.p.	n.p.	111
<i>Looking for work in dental therapy</i>	5	4	6	n.p.	n.p.	—	—	—	17
Employed elsewhere	4	n.p.	n.p.	—	—	—	—	—	8
Not employed	n.p.	n.p.	n.p.	n.p.	n.p.	—	—	—	10
On extended leave of 3 months or more	8	11	15	15	7	n.p.	—	—	57
<b><i>Not in dental therapy workforce</i></b>	<b>20</b>	<b>9</b>	<b>13</b>	<b>31</b>	<b>5</b>	<b>n.p.</b>	<b>n.p.</b>	<b>n.p.</b>	<b>85</b>
Overseas	n.p.	—	n.p.	—	—	—	n.p.	—	7
<i>Not looking for work in dental therapy</i>	15	8	10	28	5	n.p.	—	n.p.	69
Employed elsewhere	8	n.p.	6	11	—	—	—	n.p.	30
Not employed	7	n.p.	4	16	5	n.p.	—	—	39
Retired from regular work	4	n.p.	—	3	—	n.p.	—	—	10
<b>Total registered dental therapists</b>	<b>249</b>	<b>202</b>	<b>236</b>	<b>384</b>	<b>115</b>	<b>53</b>	<b>16</b>	<b>19</b>	<b>1,276</b>

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

(b) Includes dental therapists who did not state or adequately describe their location, and those who were overseas.

(c) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

## Dental therapists employed in dental therapy

A person who reported working in dental therapy in the week before the survey was considered to be an 'employed dental therapist' (see Glossary).

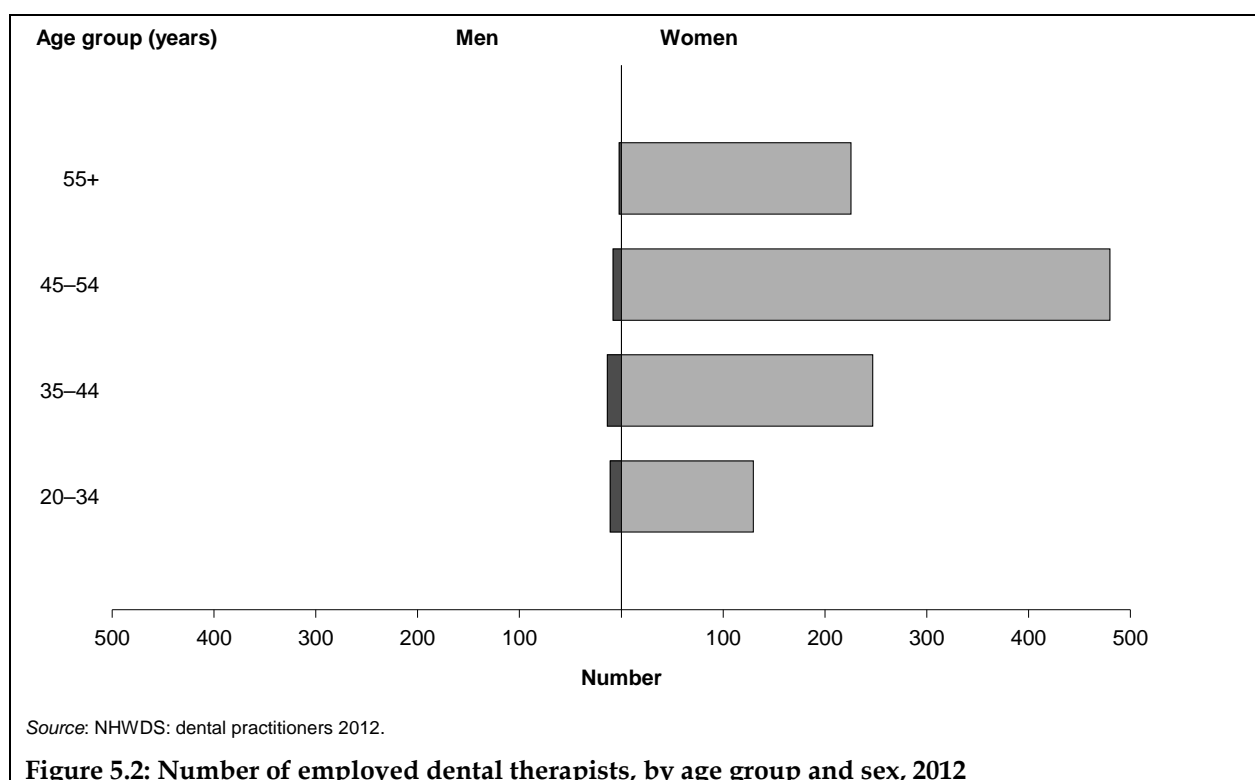
The remainder of this chapter focuses on the characteristics of dental therapists employed in Australia (excluding those provisionally registered).

Across Australia, the overall supply of employed dental therapists in 2012 was 3.8 FTE per 100,000 population (Table 5.4).

### Age and sex

In 2012, the average age of employed dental therapists was 46.4 years. Almost all employed dental therapists were women (96.9%) (Table 5.4).

There were more women than men across all age groups, with the most women in the 45-54 age group (480), followed by the 35-44 age group (247). For male dental therapists, the 35-44 age group was the largest (14) (Figure 5.2).



**Figure 5.2: Number of employed dental therapists, by age group and sex, 2012**

## Aboriginal and Torres Strait Islander dental therapists

There were 5 employed dental therapists who identified as Aboriginal or Torres Strait Islander, representing about 0.5% of employed dental therapists who responded to the question in the Dental Workforce Survey.

## Country of initial qualification

Of all employed dental therapists, 1,005 received their initial dental therapy qualification in Australia (90.0%). Those employed dental hygienists who received their initial qualification in New Zealand were, on average, slightly older than those with an Australian initial qualification (47.8 compared with 46.4, respectively) (Table 5.4).

**Table 5.4: Employed dental therapists, by country of initial qualification, selected characteristics, 2012**

Country of initial qualification	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
Australia	1,005	46.4	18.5	97.1	29.1	3.4
New Zealand	75	47.8	n.p.	n.p.	33.0	0.3
Other country	5	48.2	n.p.	n.p.	33.2	—
Not stated/inadequately described	31	44.3	n.p.	n.p.	28.5	0.1
<b>Total</b>	<b>1,117</b>	<b>46.4</b>	<b>20.4</b>	<b>96.9</b>	<b>29.4</b>	<b>3.8</b>

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

Source: NHWDS: dental practitioners 2012.

## Fields of dental therapy

### Role in dental therapy

The principal role in dental therapy describes the types of work undertaken by employed dental therapists. The 2012 survey categorised roles as clinician and non-clinician. The non-clinical roles comprised administrator, teacher/educator, researcher and other.

In 2012, the largest group was clinicians, accounting for 90.1% of employed dental therapists. The smallest group was researchers, accounting for 0.8% of employed dental therapists.

Dental therapists employed in a clinical role worked 29.0 hours per week on average and more than 9 in 10 (97.0%) were women. The high proportion of women may, in part, explain the low number of weekly hours worked as women are more likely to work part time (Table 5.5).

**Table 5.5: Employed dental therapists, by principal role of main job, selected characteristics, 2012**

Principal role of job	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
Clinician <sup>(b)</sup>	1,006	46.2	19.3	97.0	29.0	3.4
<i>Non-clinician</i>	<i>111</i>	<i>48.5</i>	<i>30.5</i>	<i>96.2</i>	<i>33.5</i>	<i>0.4</i>
Administrator	38	48.4	n.p.	n.p.	34.5	0.2
Teacher/educator	46	48.1	n.p.	n.p.	32.7	0.2
Researcher	9	53.2	n.p.	n.p.	38.3	—
Other	18	46.8	n.p.	n.p.	31.1	0.1
<b>Total</b>	<b>1,117</b>	<b>46.4</b>	<b>20.4</b>	<b>96.9</b>	<b>29.4</b>	<b>3.8</b>

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

(b) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

### Area of dental therapy

Respondents of the Dental Workforce Survey were asked to report the principal area of their main job in dental therapy in the week before the survey. Nineteen response categories were provided, with only 1 response allowed. Table 5.6 provides these responses disaggregated by selected characteristics of the respondent.

Dental therapy was the most common area of practice, with 73.0% of all employed dental therapists working in this area (Table 5.6).

**Table 5.6: Employed dental therapists, by principal area of main job, selected characteristics, 2012**

Principal area of main job	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
General dental practice	9	47.4	n.p.	n.p.	24.6	—
Dento-maxillofacial radiology	1	50.0	—	n.p.	40.0	—
Endodontics	—	—	—	—	—	—
Oral and maxillofacial surgery	—	—	—	—	—	—
Oral surgery	—	—	—	—	—	—
Oral medicine	—	—	—	—	—	—
Oral pathology	—	—	—	—	—	—
Orthodontics	54	44.2	n.p.	n.p.	24.7	0.2
Paedodontics	7	45.8	n.p.	n.p.	28.7	—
Periodontics	3	41.4	n.p.	n.p.	36.0	—
Prosthodontics	—	—	—	—	—	—
Public health dentistry	30	47.6	n.p.	n.p.	35.5	0.1
Special needs dentistry	1	55.0	n.p.	n.p.	38.0	—
Dental hygiene	59	44.0	n.p.	n.p.	21.6	0.1
Dental therapy	815	46.7	21.1	97.3	29.3	2.8
Dental prosthetic	1	45.0	—	n.p.	30.0	—
Oral health therapy	28	42.9	n.p.	n.p.	37.4	0.1
Forensic odontology	—	—	—	—	—	—
Other	24	48.7	n.p.	n.p.	35.5	0.1
Not stated/inadequately described	85	47.0	n.p.	n.p.	32.5	0.3
<b>Total</b>	<b>1,117</b>	<b>46.4</b>	<b>20.4</b>	<b>96.9</b>	<b>29.4</b>	<b>3.8</b>

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

Source: NHWDS: dental practitioners 2012.

## Work setting

Dental therapists were asked to indicate the setting of their main job in dental therapy in the week before completing the survey.

The most commonly reported work setting among employed dental therapists was an educational facility (38.8% of those working in a clinical role and 38.7% of all dental therapists, respectively).

Dental therapists working in an educational facility on average worked more hours than those working in private practice as their main job – 30.4 compared with 23.9 hours per week for clinicians and 30.7 compared with 23.9 for all dental therapists, respectively (Table 5.7).

**Table 5.7: Employed dental therapists, by work setting of main job and clinician<sup>(a)</sup> status, number and average weekly hours worked, 2012**

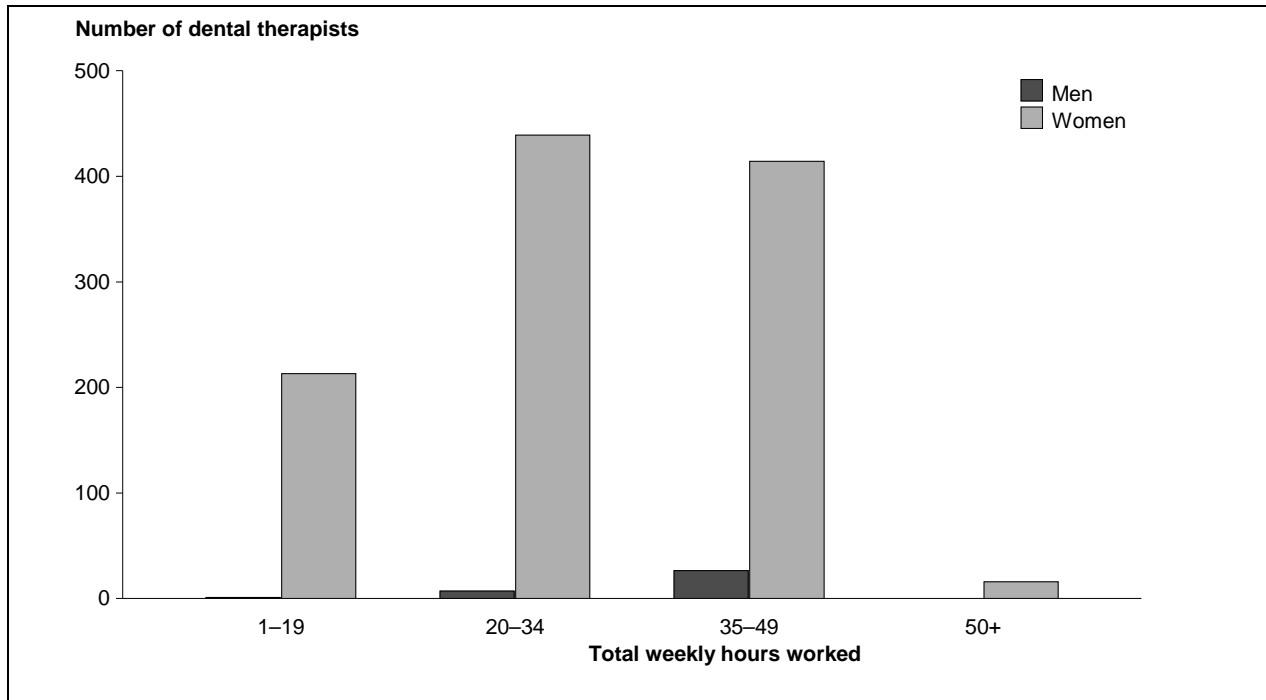
Work setting of main job	Clinician <sup>(a)</sup>		Total dental therapists	
	Number	Average weekly hours worked	Number	Average weekly hours worked
Private practice	227	23.9	241	23.9
Aboriginal health service	8	27.8	9	29.0
Community healthcare services	179	29.9	197	30.2
Hospital	95	29.0	113	30.0
Residential healthcare services	1	n.p.	1	n.p.
Commercial/business services	1	n.p.	4	32.1
Educational facility	390	30.4	432	30.7
Correctional services	—	—	—	—
Defence forces	3	31.2	3	31.2
Other government department or agency	23	32.4	29	32.8
Other	10	30.4	17	33.5
Not stated/inadequately described	69	33.7	71	34.0
<b>Total</b>	<b>1,006</b>	<b>29.0</b>	<b>1,117</b>	<b>29.4</b>

(a) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

## Working hours

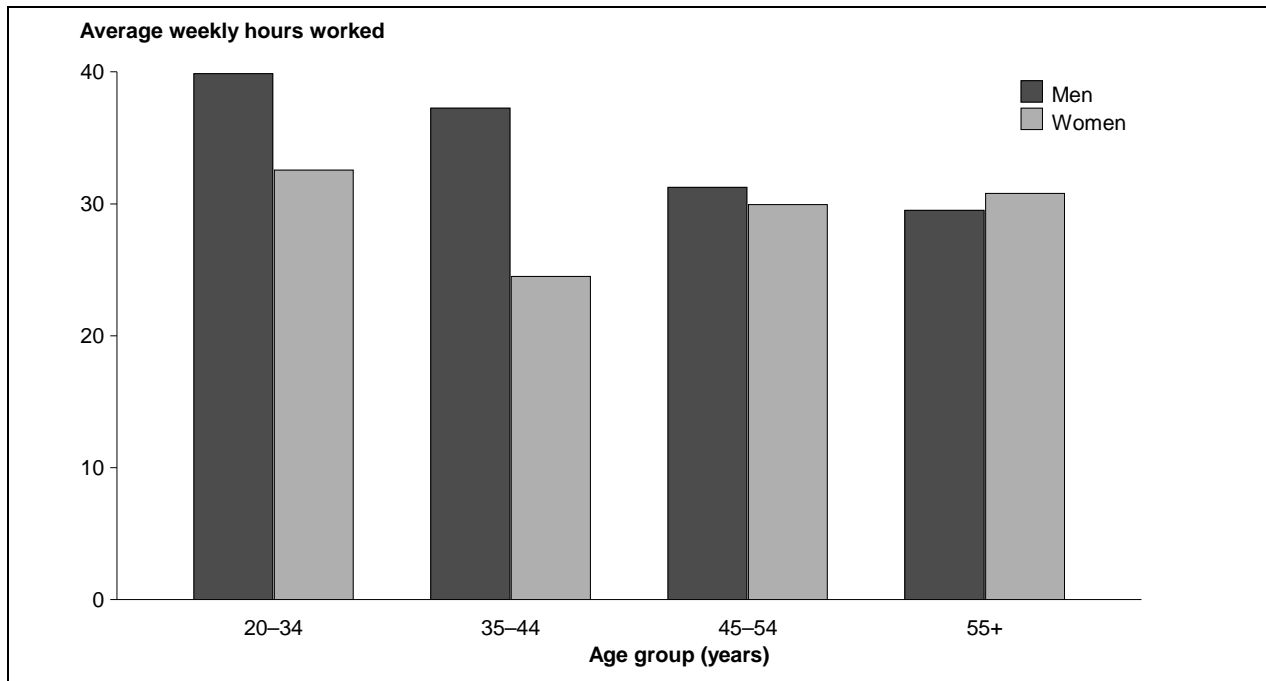
On average, employed dental therapists worked 29.4 hours per week in 2012 (Table 5.8). Almost 3 in 5 (59.1%) dental therapists worked part time (less than 35 hours per week) (Figure 5.3).



Source: NHWDS: dental practitioners 2012.

**Figure 5.3: Employed dental therapists, by sex and total hours worked per week, 2012**

Male dental therapists worked 36.2 hours per week on average, while female dental therapists worked 29.2 hours on average (Table 5.10). This gap remained relatively constant across the 20-34 and 35-44 age groups, but narrowed in the over-45 age groups (Figure 5.4).



Source: NHWDS: dental practitioners 2012.

**Figure 5.4: Employed dental therapists, by sex and age group, average total weekly hours worked, 2012**

## States and territories

On average, employed dental therapists in the Northern Territory worked the most weekly hours (35.7), while those in Western Australia worked the least (27.9) (Table 5.8).

**Table 5.8: Employed dental therapists, by state and territory<sup>(a)</sup> and sex, average total weekly hours worked, 2012**

Sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Men	39.2	37.9	33.8	43.0	37.3	31.8	—	—	36.2
Women	29.1	28.0	31.4	27.8	29.6	30.1	32.6	35.7	29.2
<b>Total</b>	<b>29.4</b>	<b>28.4</b>	<b>31.5</b>	<b>27.9</b>	<b>29.8</b>	<b>30.4</b>	<b>32.6</b>	<b>35.7</b>	<b>29.4</b>

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

(b) Includes dental therapists who did not state or adequately describe their location, and those who were overseas.

Source: NHWDS: dental practitioners 2012.

## Remoteness areas

On average, dental therapists working in *Remote/Very remote* areas worked the most weekly hours (31.6) in 2012, while those in *Inner regional* areas worked the least (28.7) (Table 5.9).

**Table 5.9: Employed dental therapists, by remoteness area<sup>(a)</sup> and sex, average total weekly hours worked, 2012**

Sex	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Men	37.9	34.7	31.5	—	36.2
Women	29.1	28.4	30.1	31.6	29.2
<b>Total</b>	<b>29.4</b>	<b>28.7</b>	<b>30.1</b>	<b>31.6</b>	<b>29.4</b>

(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) Includes *Migratory* areas.

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

Source: NHWDS: dental practitioners 2012.

## Employment sector

Dental therapists in the public sector worked more hours per week than their private sector counterparts (25.2 hours compared with 18.7 hours per week on average, respectively) (Table 5.10).

**Table 5.10: Employed dental therapists, by employment sector, selected characteristics, 2012**

Characteristic	Private sector	Public sector
Number	347	809
Average age	44.3	46.8
Aged 55 and over (per cent)	12.5	22.0
Women (per cent)	97.0	96.9
Average weekly hours worked in sector	18.7	25.2
<b>FTE clinician number<sup>(a)</sup></b>	<b>171</b>	<b>537</b>

(a) Full-time equivalent (FTE) clinician number. FTE is based on clinical hours worked in the sector (see Glossary).

Note: Dental therapists appear in each sector they reported working in and so may be included in both sectors.

Source: NHWDS: dental practitioners 2012.

## Geographic profile of employed dental therapists

### Remoteness areas

The supply of employed dental therapists in Australia was highest in *Outer regional* areas (5.6 FTE per 100,000 population) and lowest in *Major cities* (3.4 FTE per 100,000 population) (Table 5.11).

**Table 5.11: Employed dental therapists, by remoteness area<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Number	708	235	145	28	1,117
Average age	46.4	47.3	45.6	44.8	46.4
Aged 55 and over (per cent)	19.7	22.3	19.7	n.p.	20.4
Women (per cent)	97.1	95.7	97.2	n.p.	96.9
Average weekly hours worked	29.4	28.7	30.1	31.6	29.4
<b>FTE rate<sup>(d)</sup></b>	<b>3.4</b>	<b>4.3</b>	<b>5.6</b>	<b>4.5</b>	<b>3.8</b>

(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 therapists who did not state or adequately describe their location, and those who were overseas.

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

Source: NHWDS: dental practitioners 2012.

### States and territories

In 2012, the highest number of employed dental therapists was in Western Australia (337), followed by New South Wales (216). The FTE rate was highest in Western Australia, with 10.2 FTE per 100,000 population, while the lowest was in New South Wales (2.3) (Table 5.12).



**Table 5.12: Employed dental therapists, by state and territory<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Number	216	178	202	337	101	49	15	18	1,117
Average age	47.8	44.6	48.1	44.5	47.8	48.7	52.0	47.3	46.4
Aged 55 and over (per cent)	26.7	12.4	12.4	19.5	33.6	n.p.	n.p.	n.p.	20.4
Women (per cent)	96.5	95.5	97.5	99.4	97.0	n.p.	n.p.	n.p.	96.9
Average weekly hours worked	29.4	28.4	31.5	27.9	29.8	30.4	32.6	35.7	29.4
<b>FTE rate<sup>(c)</sup></b>	<b>2.3</b>	<b>2.4</b>	<b>3.7</b>	<b>10.2</b>	<b>4.8</b>	<b>7.7</b>	<b>3.4</b>	<b>7.2</b>	<b>3.8</b>

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


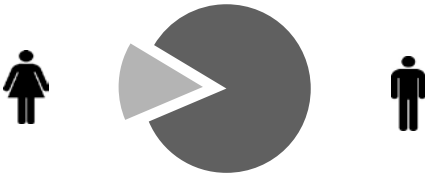



(b) Includes dental therapists who did not state or adequately describe their location, and those who were overseas.

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

Source: NHWDS: dental practitioners 2012.

## 6 Dental prosthetist workforce

### At a glance

	<p>In 2012, there were 1,161 registered dental prosthetists, 1,100 of whom were employed as a dental prosthetist (96.6%).</p>
	<p>About 3 in 20 registered dental prosthetists were women in 2012.</p>
	<p>In 2012, the average age of employed dental prosthetists was 49.1 and 31.3% were aged 55 or over.</p>
	<p>On average, employed dental prosthetists worked 42.7 hours per week in 2012.</p>
	<p>In 2012, most employed dental prosthetists reported working in private practice (78.5%).</p>

Source: NHWDS: dental practitioners 2012.

This chapter provides details about the dental prosthetist workforce in Australia. For information about what dental prosthetists do, see Box 6.1.

**Box 6.1: Who is a dental prosthetist?**

Dental prosthetists work as independent practitioners (i.e. without supervision) in the assessment, treatment, management and provision of:

- removable dentures
- flexible or removable mouthguards used for sporting activities.

Dental prosthetists who are educated and trained in a program of study approved by the Dental Board of Australia, may provide:

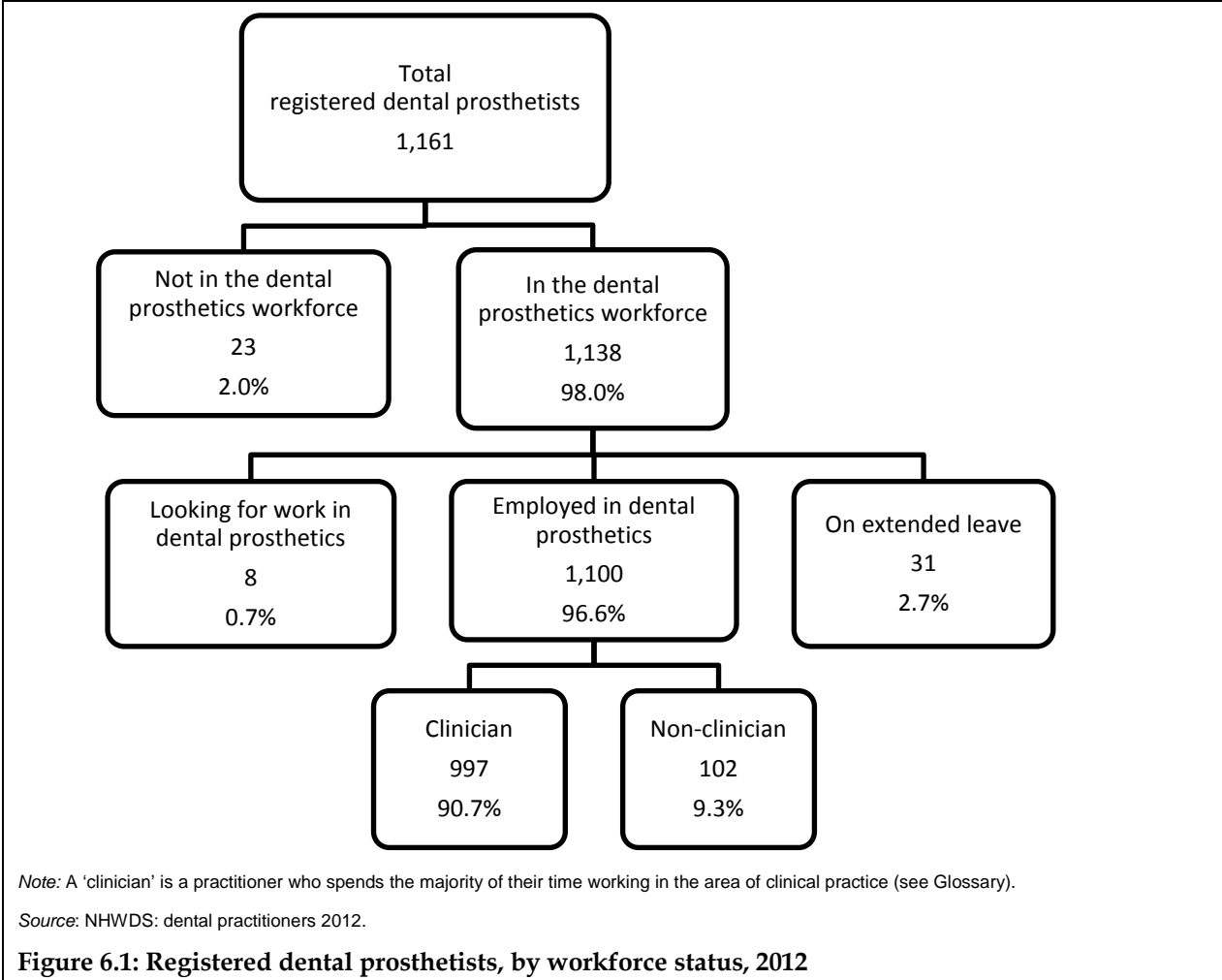
- various types of splints
- sleep apnoea devices
- anti-snoring devices
- immediate dentures
- immediate additions to existing dentures

These procedures require written referrals to and from dentists and any appliance or device manufactured under such arrangement must be planned, issued and managed by the treating dentist or dental specialist.

*Source:* DBA 2013a.

# Workforce status

In 2012, there were 1,161 registered dental prosthetists in Australia. The majority of these were in the dental prosthetics workforce (1,138), of whom 96.6% (1,100) were employed. Of the remainder, 8 were looking for work in dental prosthetics and 31 were on extended leave (Figure 6.1).



Most registered dental prosthetists held a general registration (98.4%). Dental prosthetists with a non-practising registration reported the highest average age (54.2 years). The category with the highest proportion of women was dental prosthetists holding a non-practising registration (36.8%) (Table 6.1).

**Table 6.1: Registered dental prosthetists, by registration type, selected characteristics, 2012**

Registration type	Number	Average age	Aged 55 and over (per cent)	Women (per cent)
General	1,142	49.0	31.4	14.8
Non-practising	19	54.2	52.6	36.8
<b>Total</b>	<b>1,161</b>	<b>49.1</b>	<b>31.8</b>	<b>15.2</b>

Source: NHWDS: dental practitioners 2012.

From 2011 to 2012, the number of dental prosthetists in the dental prosthetics workforce increased by 3.5%, from 1,100 to 1,138%; while those employed in dental prosthetics increased by 3.7% over the same years, from 1,061 in 2011 to 1,100 in 2012 (Table 6.2).

**Table 6.2: Registered dental prosthetists, by workforce status, 2011 and 2012**

Workforce status	2011	2012	Change between 2011 and 2012 (per cent)
<b><i>In the dental prosthetics workforce</i></b>	<b>1,100</b>	<b>1,138</b>	<b>3.5</b>
Employed in dental prosthetics	1,061	1,100	3.7
<i>Looking for work in dental prosthetics</i>	3	8	142.6
Employed elsewhere	3	8	142.6
On extended leave of 3 months or more	36	31	-13.9
<b><i>Not in dental prosthetics workforce</i></b>	<b>27</b>	<b>23</b>	<b>-16.5</b>
Overseas	3	6	110.2
<i>Not looking for work in dental prosthetics</i>	15	11	-24.0
Employed elsewhere	4	7	70.0
Not employed	10	4	-61.9
Retired from regular work	9	5	-45.3
<b>Total registered dental prosthetists</b>	<b>1,127</b>	<b>1,161</b>	<b>3.0</b>

Note: For 2011, data supplied by the AHPRA has been updated (October 2013) and therefore will not match data previously published.

Sources: NHWDS: dental practitioners, 2011 and 2012.

The number of registered dental prosthetists in the dental prosthetics workforce ranged from 402 in New South Wales to 4 in the Northern Territory (Table 6.3).

**Table 6.3: Registered dental prosthetists, by workforce status and principal role of main job, states and territories<sup>(a)</sup>, 2012**

<b>Workforce status</b>	<b>NSW</b>	<b>Vic</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>ACT</b>	<b>NT</b>	<b>Australia<sup>(b)</sup></b>
<b><i>In the dental prosthetics workforce</i></b>	<b>402</b>	<b>319</b>	<b>218</b>	<b>81</b>	<b>52</b>	<b>49</b>	<b>13</b>	<b>4</b>	<b>1,138</b>
<i>Employed in dental prosthetics</i>	388	309	211	78	51	47	13	3	1,100
Clinician <sup>(c)</sup>	346	285	195	67	45	n.p.	13	n.p.	997
Non-clinician	42	25	16	11	6	n.p.	—	n.p.	102
<i>Looking for work in dental prosthetics</i>	3	2	n.p.	n.p.	—	—	—	—	8
Employed elsewhere	3	2	n.p.	n.p.	—	—	—	—	8
On extended leave of 3 months or more	11	8	6	n.p.	n.p.	n.p.	—	n.p.	31
<b><i>Not in dental prosthetics workforce</i></b>	<b>5</b>	<b>6</b>	<b>n.p.</b>	<b>5</b>	<b>—</b>	<b>n.p.</b>	<b>—</b>	<b>n.p.</b>	<b>23</b>
Overseas	n.p.	—	n.p.	—	—	—	—	n.p.	6
<i>Not looking for work in dental prosthetics</i>	n.p.	5	—	n.p.	—	—	—	—	11
Employed elsewhere	n.p.	n.p.	—	n.p.	—	—	—	—	7
Not employed	n.p.	n.p.	—	—	—	—	—	—	4
Retired from regular work	n.p.	n.p.	—	n.p.	—	n.p.	—	—	5
<b>Total registered dental prosthetists</b>	<b>407</b>	<b>326</b>	<b>219</b>	<b>86</b>	<b>52</b>	<b>50</b>	<b>13</b>	<b>5</b>	<b>1,161</b>

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

(b) Includes dental prosthetists who did not state or adequately describe their location, and those who were overseas.

(c) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

## Dental prosthetists employed in dental prosthetics

A person who reported working in dental prosthetics in the week before the survey was considered to be an 'employed dental prosthetist' (see Glossary).

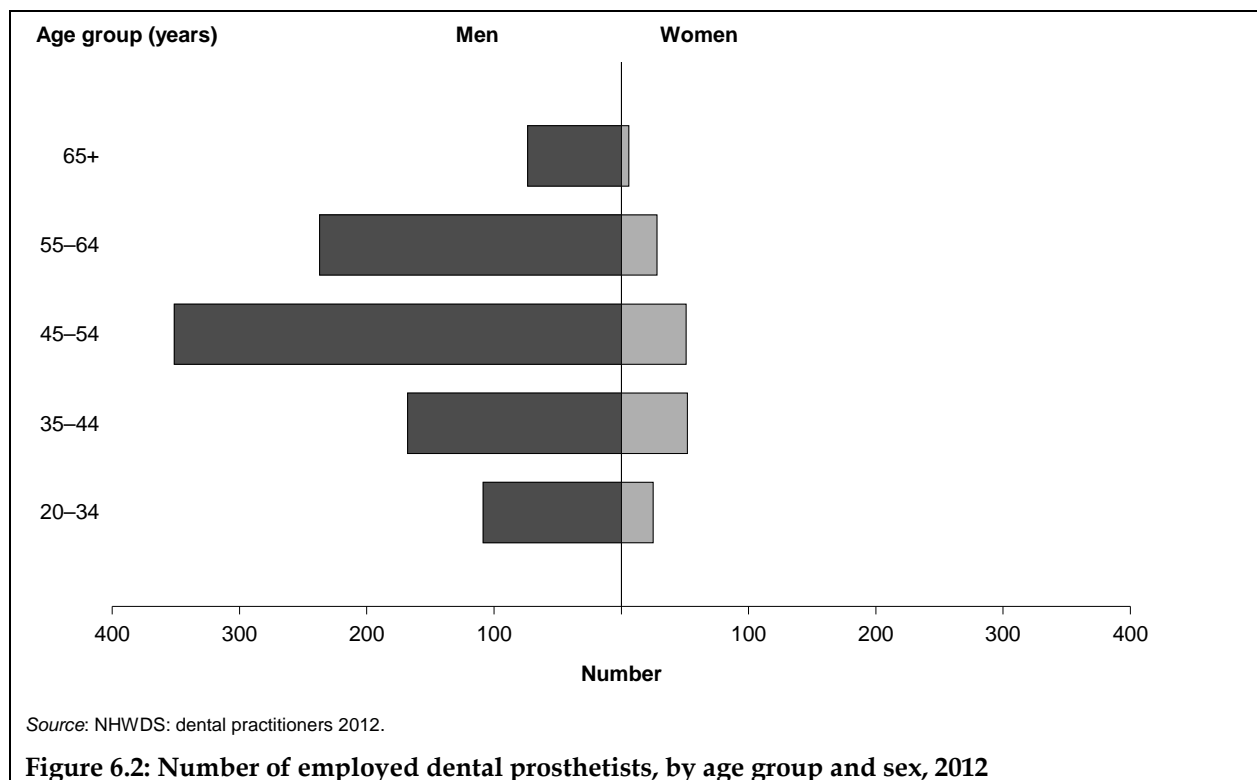
The remainder of this chapter focuses on the characteristics of dental prosthetists employed in Australia (excluding those provisionally registered).

Across Australia, the overall supply of employed dental prosthetists in 2012 was 5.4 FTE per 100,000 population, up slightly from 5.3 FTE per 100,000 population in 2011 (Table 2.4).

### Age and sex

In 2012, the average age of employed dental prosthetists was 49.1. About 3 in 20 of employed dental prosthetists were women (14.7%) (Table 6.4).

There were more men than women across all age groups, with the most men in the 45–54 age group (351), followed by the 55–64 age group (237). For female dental prosthetists, the 35–44 age group was the largest (52) (Figure 6.2).



## Aboriginal and Torres Strait Islander dental prosthetists

There were 3 employed dental prosthetists who identified as Aboriginal or Torres Strait Islander, representing about 0.3% of employed dental prosthetists who responded to the question in the Dental Workforce Survey.

## Country of initial qualification

Of all employed dental prosthetists, 1,008 received their initial dental prosthetics qualification in Australia (91.6%) (Table 6.4).

**Table 6.4: Employed dental prosthetists, by country of initial qualification, selected characteristics, 2012**

Country of initial qualification	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
Australia	1,008	49.1	31.2	14.4	42.6	5.0
New Zealand	34	45.3	n.p.	n.p.	42.9	0.2
Other country	30	55.4	n.p.	n.p.	46.0	0.2
Not stated/inadequately described	28	45.0	n.p.	n.p.	39.6	0.1
<b>Total</b>	<b>1,100</b>	<b>49.1</b>	<b>31.3</b>	<b>14.7</b>	<b>42.7</b>	<b>5.4</b>

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

Source: NHWDS: dental practitioners 2012.

## Fields in dental prosthetics

### Role in dental prosthetics

The principal role in dental prosthetics describes the types of work undertaken by employed dental prosthetists. The 2012 survey categorised roles as clinician and non-clinician. The non-clinical roles comprised administrator, teacher/educator, researcher and other.

In 2012, the largest group was clinicians, accounting for 90.6% of employed dental prosthetists. The smallest group was researchers, accounting for 0.2% of employed dental prosthetists.

Dental prosthetists employed in a clinical role worked 43.2 hours per week on average, the most hours of all the dental professions. They also had the highest average age of all the professions at 49.1 years (Table 6.5).

**Table 6.5: Employed dental prosthetists, by principal role of main job, selected characteristics, 2012**

Principal role of main job	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
Clinician <sup>(b)</sup>	997	49.1	31.6	14.2	43.2	5.0
<i>Non-clinician</i>	<i>102</i>	<i>48.3</i>	<i>29.1</i>	<i>19.8</i>	<i>36.9</i>	<i>0.4</i>
Administrator	16	52.5	n.p.	n.p.	32.3	0.1
Teacher/educator	29	50.3	n.p.	n.p.	35.9	0.1
Researcher	2	n.p.	n.p.	n.p.	n.p.	—
Other	55	45.6	n.p.	n.p.	38.6	0.2
<b>Total</b>	<b>1,100</b>	<b>49.1</b>	<b>31.3</b>	<b>14.7</b>	<b>42.7</b>	<b>5.4</b>

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

(b) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

### Area in dental prosthetics

Respondents of the Dental Workforce Survey were asked to report the principal area of their main job in dental prosthetics in the week before the survey. Nineteen response categories were provided, with only 1 response allowed. Table 6.6 provides these responses disaggregated by selected characteristics of the respondent.

Dental prosthetics was the most common area of main job, with 85.0% of all employed dental prosthetists working in this area. The area of main job with the highest proportion of women was in the 'other' category (26.8%) (Table 6.6).



**Table 6.6: Employed dental prosthetists, by principal area of main job, selected characteristics, 2012**

Principal area of main job	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
General dental practice	1	n.p.	—	—	n.p.	—
Dento-maxillofacial radiology	—	—	—	—	—	—
Endodontics	—	—	—	—	—	—
Oral and maxillofacial surgery	—	—	—	—	—	—
Oral surgery	—	—	—	—	—	—
Oral medicine	—	—	—	—	—	—
Oral pathology	—	—	—	—	—	—
Orthodontics	1	n.p.	—	—	n.p.	—
Paedodontics	—	—	—	—	—	—
Periodontics	—	—	—	—	—	—
Prosthodontics	41	51.7	n.p.	n.p.	39.8	0.2
Public health dentistry	—	—	—	—	—	—
Special needs dentistry	—	—	—	—	—	—
Dental hygiene	—	—	—	—	—	—
Dental therapy	1	n.p.	—	—	n.p.	—
Dental prosthetic	935	48.8	30.0	14.9	43.2	4.7
Oral health therapy	—	—	—	—	—	—
Forensic odontology	—	—	—	—	—	—
Other	21	47.9	n.p.	n.p.	42.4	0.1
Not stated/inadequately described	100	50.8	42.4	14.6	39.1	0.5
<b>Total</b>	<b>1,100</b>	<b>49.1</b>	<b>31.3</b>	<b>14.7</b>	<b>42.7</b>	<b>5.4</b>

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

Source: NHWDS: dental practitioners 2012.

## Work setting

Dental prosthetists were asked to indicate the setting of their main job in dental prosthetics in the week before completing the survey.

Private practice was the most commonly reported work setting among employed dental prosthetists (82.1% of those working in a clinical role and 78.4% of all dental prosthetists).

Dental prosthetists working in private practice on average worked the most weekly hours of all the work settings – 44.0 for clinicians and 43.7 for all dental prosthetists (Table 6.7).

**Table 6.7: Employed dental prosthetists, by work setting of main job, by clinician<sup>(a)</sup> status, number and average weekly hours worked, 2012**

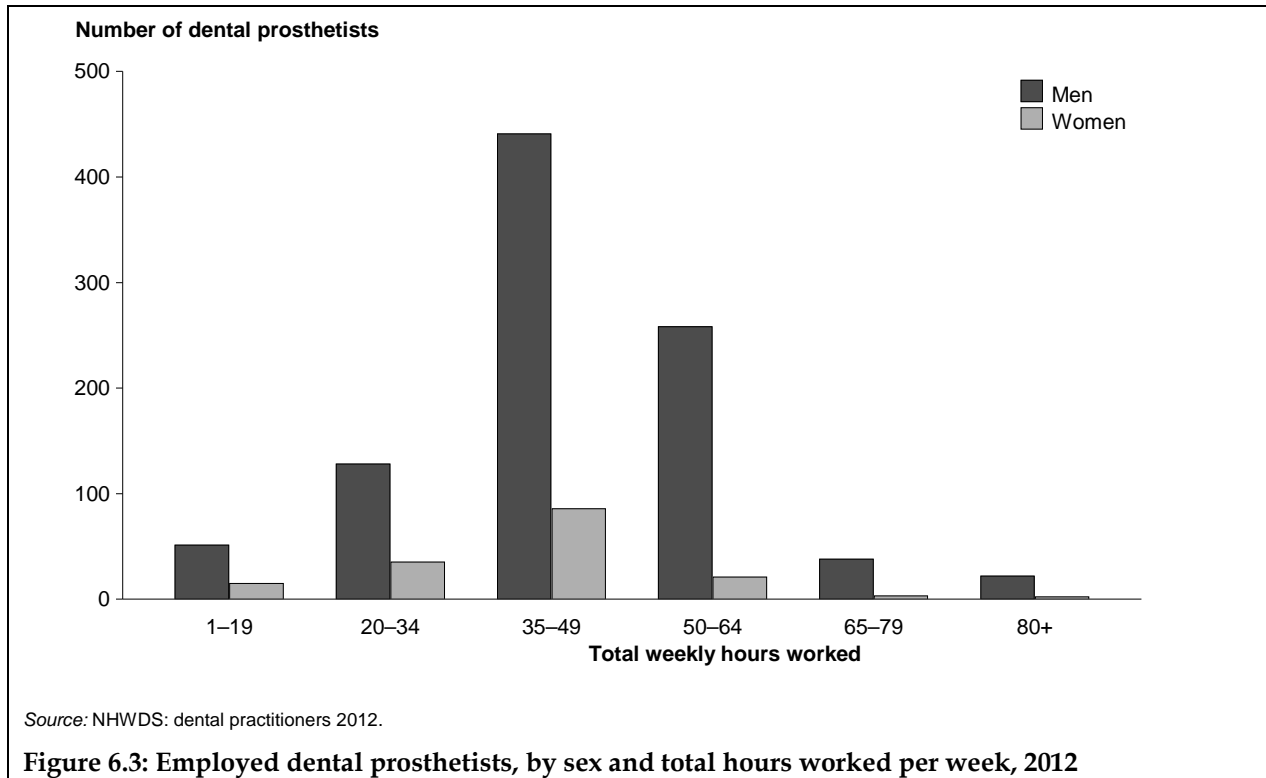
Work setting of main job	Clinician <sup>(a)</sup>		Total dental prosthetists	
	Number	Average weekly hours worked	Number	Average weekly hours worked
Private practice	819	44.0	863	43.7
Aboriginal health service	—	—	—	—
Community healthcare services	16	36.2	19	37.0
Hospital	50	42.3	63	40.8
Residential healthcare services	3	29.7	3	29.7
Commercial/business services	9	41.5	14	40.7
Educational facility	1	n.p.	22	38.8
Correctional services	—	—	—	—
Defence forces	—	—	—	—
Other government department or agency	6	34.8	6	34.8
Other	6	51.0	11	41.0
Not stated/inadequately described	87	38.6	99	37.8
<b>Total</b>	<b>997</b>	<b>43.2</b>	<b>1,100</b>	<b>42.7</b>

(a) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

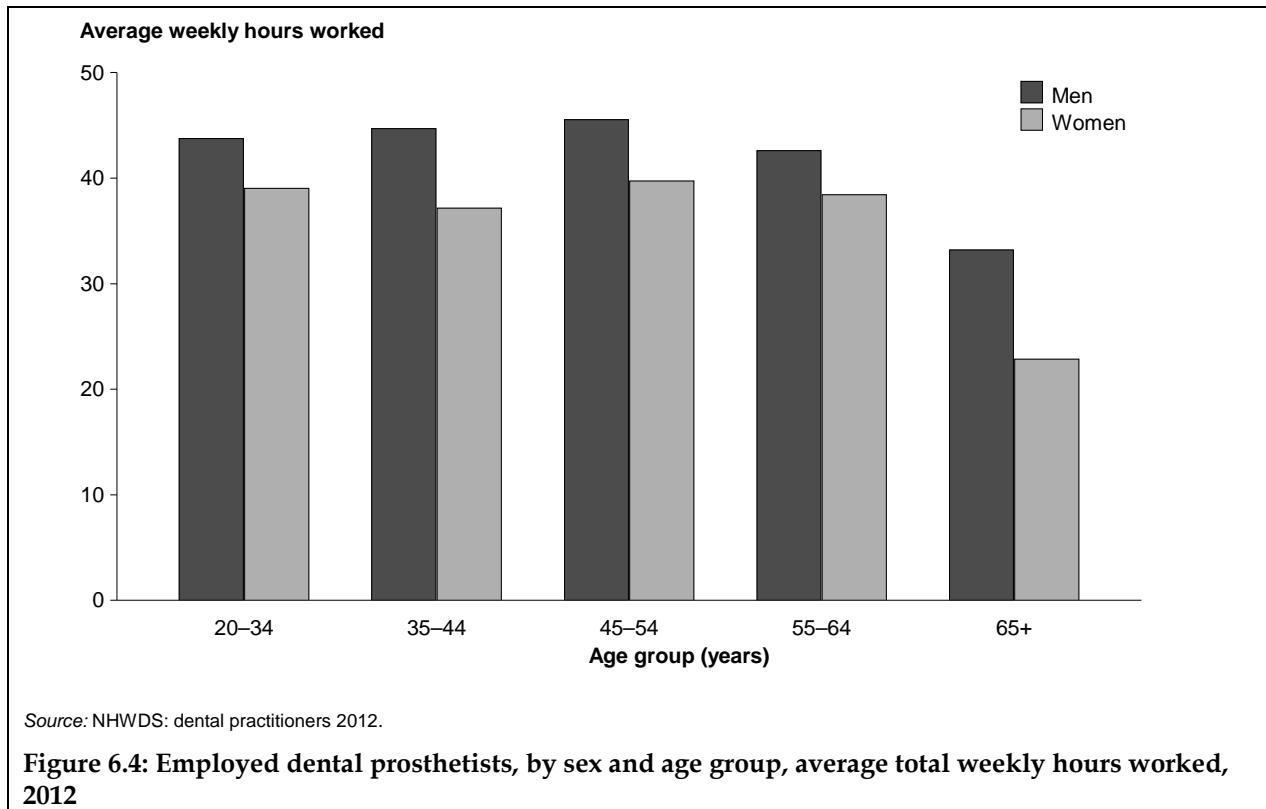
Source: NHWDS: dental practitioners 2012.

## Working hours

On average, employed dental prosthetists worked 42.7 hours per week in 2012 (Table 6.8). About 1 in 5 (20.8%) dental prosthetists worked part time (less than 35 hours per week) (Figure 6.3).



Male dental prosthetists worked 43.5 hours per week on average, while female dental prosthetists worked 37.9 hours on average (Table 6.10). This gap remained relatively constant across age groups (Figure 6.4).



## States and territories

On average, employed dental prosthetists in Queensland worked the most weekly hours (45.9) while those in Tasmania worked the least (38.3) (Table 6.8).

**Table 6.8: Employed dental prosthetists, by state and territory<sup>(a)</sup> and sex, average total weekly hours, 2012**

Sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Men	44.6	42.4	46.9	39.6	38.9	37.4	43.2	40.0	43.5
Women	38.7	34.4	39.8	38.6	35.0	40.4	—	39.0	37.9
<b>Total</b>	<b>43.6</b>	<b>41.4</b>	<b>45.9</b>	<b>39.4</b>	<b>38.6</b>	<b>38.3</b>	<b>43.2</b>	<b>39.3</b>	<b>42.7</b>

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

(b) Includes dental prosthetists who did not state or adequately describe their location, and those who were overseas.

Source: NHWDS: dental practitioners 2012.

## Remoteness areas

On average, dental prosthetists working in *Inner regional* areas worked the most weekly hours (44.6) in 2012, while those in *Outer regional* areas worked the least (40.6) (Table 6.9).

**Table 6.9: Employed dental prosthetists, by remoteness area<sup>(a)</sup> and sex, average total weekly hours worked, 2012**

Sex	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Men	43.3	45.0	40.1	55.0	43.5
Women	36.6	41.6	43.4	30.0	37.9
<b>Total</b>	<b>42.3</b>	<b>44.6</b>	<b>40.6</b>	<b>43.2</b>	<b>42.7</b>

(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) Includes *Migratory* areas.

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

Source: NHWDS: dental practitioners 2012.

## Employment sector

Dental prosthetists in the private sector worked more hours per week than their public sector counterparts (27.0 hours compared with 18.5 hours per week on average, respectively) (Table 6.10).

**Table 6.10: Employed dental prosthetists, by employment sector, selected characteristics, 2012**

Characteristic	Private sector	Public sector
Number	971	269
Average age	48.9	49.1
Aged 55 and over (per cent)	31.4	27.7
Women (per cent)	13.0	19.6
Average weekly hours worked in sector	27.0	18.5
<b>FTE clinician number<sup>(a)</sup></b>	<b>691</b>	<b>131</b>

(a) Full-time equivalent (FTE) clinician number. FTE is based on clinical hours worked in the sector (see Glossary).

Note: Dental prosthetists appear in each sector they reported working in and so may be included in both sectors.

Source: NHWDS: dental practitioners 2012.

## Geographic profile of employed dental prosthetists

### Remoteness areas

The supply of employed dental prosthetists in Australia was highest in *Inner regional* areas (6.4 FTE per 100,000 population) and lowest in *Remote/Very remote* areas (0.5 FTE per 100,000 population) (Table 6.11).

**Table 6.11: Employed dental prosthetists, by remoteness area<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Number	808	227	61	2	1,100
Average age	48.3	50.9	53.4	n.p.	49.1
Aged 55 and over (per cent)	28.2	38.4	n.p.	n.p.	31.3
Women (per cent)	14.7	14.3	n.p.	n.p.	14.7
Average weekly hours worked	42.3	44.6	n.p.	n.p.	42.7
<b>FTE rate<sup>(d)</sup></b>	<b>5.6</b>	<b>6.4</b>	<b>3.2</b>	<b>0.5</b>	<b>5.4</b>

(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 prosthetists who did not state or adequately describe their location, and those who were overseas.

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

Source: NHWDS: dental practitioners 2012.

## States and territories

In 2012, the highest number of employed dental prosthetists was in New South Wales (388), followed by Victoria (309). The FTE rate was highest in Tasmania, with 9.2 FTE per 100,000 population, while the lowest was in the Northern Territory (1.3) (Table 6.12).

**Table 6.12: Employed dental prosthetists, by state and territory<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Number	388	309	211	78	51	47	13	3	1,100
Average age	48.1	49.6	49.5	48.6	49.4	50.8	53.5	46.7	49.1
Aged 55 and over (per cent)	29.0	32.1	31.7	32.1	37.3	34.0	38.5	33.3	31.3
Women (per cent)	15.9	12.2	14.9	14.1	7.8	29.8	—	66.7	14.7
Average weekly hours worked	43.6	41.4	45.9	39.4	38.6	38.3	43.2	39.3	42.7
<b>FTE rate<sup>(c)</sup></b>	<b>6.1</b>	<b>6.0</b>	<b>5.6</b>	<b>3.3</b>	<b>3.1</b>	<b>9.2</b>	<b>3.9</b>	<b>1.3</b>	<b>5.4</b>

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

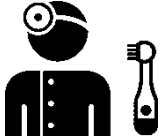
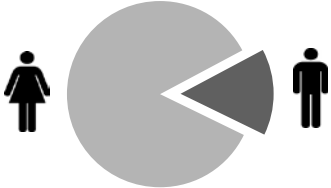


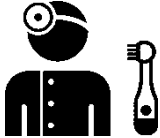
(b) Includes dental prosthetists who did not state or adequately describe their location, and those who were overseas.

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

Source: NHWDS: dental practitioners 2012.

## 7 Oral health therapist workforce

### At a glance

	<p>In 2012, there were 738 registered oral health therapists, 675 of whom were employed in oral health therapy (93.2%).</p>
	<p>84.8% of registered oral health therapists were women in 2012.</p>
	<p>In 2012, the average age of employed oral health therapists was 31.0 and 1.9% were aged 55 or over.</p>
	<p>On average, employed oral health therapists worked 33.7 hours per week in 2012.</p>
	<p>In 2012, over a half of oral health therapists reported working in private practice (55.0%).</p>

Source: NHWDS: dental practitioners 2012.

This chapter provides details about the oral health therapist workforce in Australia. For information about what oral health therapists do, see Box 7.1.

**Box 7.1: Who is an oral health therapist?**

Oral health therapists are dual qualified as a dental therapist and dental hygienist. They provide oral health assessment, diagnosis, treatment, management and preventive services for children and adolescents and, if educated and trained in a program of study approved by the Dental Board of Australia, for adults of all ages.

Their services may include:

- restorative (fillings) treatment
- tooth removal
- oral health promotion
- periodontal (gum) treatment
- other oral health care to promote healthy oral behaviours.

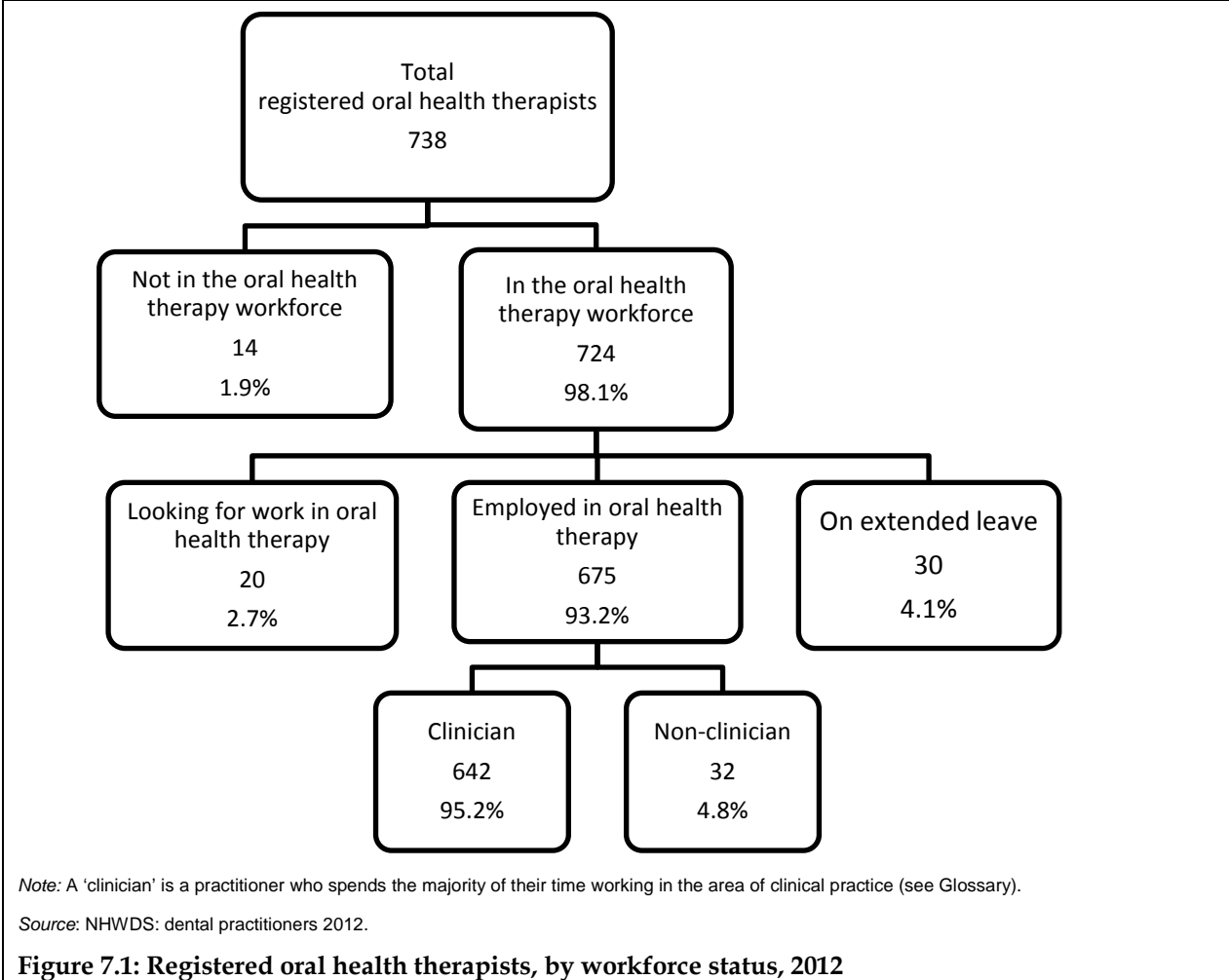
Oral health therapists may only work within a structured professional relationship with a dentist or dental specialist.

*Source:* DBA 2013a.



# Workforce status

In 2012, there were 738 registered oral health therapists in Australia. The majority of these were in the oral health therapy workforce (724), of whom 93.2% (675) were employed. Of the remainder, 20 were looking for work in oral health therapy and 30 were on extended leave (Figure 7.1).



Almost all registered oral health therapists held a general registration (99.1%). Oral health therapists with a general registration also reported the highest average age (30.6 years) (Table 7.1).

**Table 7.1: Registered oral health therapists, by registration type, selected characteristics, 2012**

Registration type	Number	Average age	Aged 55 and over (per cent)	Women (per cent)
General	731	30.6	1.9	84.7
Non-practising	7	29.3	—	n.p.
<b>Total</b>	<b>738</b>	<b>30.6</b>	<b>1.9</b>	<b>84.8</b>

Source: NHWDS: dental practitioners 2012.

From 2011 to 2012, the number of oral health therapists in the oral health therapist workforce decreased by 30.6%, from 1,044 to 724 (Table 7.2). This large decrease may, in part, be due to a change in the methodology to assign a 'primary practitioner' type to those oral health therapists registered in more than 1 division of general registration (see Box A1). Therefore, comparison of 2011 and 2012 data should be made with caution.

**Table 7.2: Registered oral health therapists, by workforce status, 2011 and 2012**

Workforce status	2011	2012	Change between 2011 and 2012 (per cent)
<b><i>In the oral health therapy workforce</i></b>	<b>1,044</b>	<b>724</b>	<b>-30.6</b>
Employed in oral health therapy	960	675	-29.7
<i>Looking for work in oral health therapy</i>	18	20	11.9
Employed elsewhere	6	6	1.6
Not employed	12	14	16.8
On extended leave of 3 months or more	67	30	-55.3
<b><i>Not in oral health therapy workforce</i></b>	<b>33</b>	<b>14</b>	<b>-57.7</b>
Overseas	5	3	-42.4
<i>Not looking for work in oral health therapy</i>	27	11	-59.0
Employed elsewhere	9	3	-67.0
Not employed	18	8	-55.0
Retired from regular work	1	1	—
<b>Total registered oral health therapists</b>	<b>1,077</b>	<b>738</b>	<b>-31.5</b>

Notes

1. The 2011 and 2012 data are not directly comparable due to a change in the methodology to assign a primary practitioner type to those practitioners registered in more than 1 division of general registration.
2. For 2011, data supplied by the AHPRA has been updated (October 2013) and therefore will not match data previously published.

Sources: NHWDS: dental practitioners, 2011 and 2012.

The number of registered oral health therapists in the oral health therapy workforce ranged from 272 in Queensland and 192 in New South Wales to 5 each in Western Australia, Tasmania and the Northern Territory (Table 7.3).

**Table 7.3: Registered oral health therapists, by workforce status and principal role of main job, states and territories<sup>(a)</sup>, 2012**

<b>Workforce status</b>	<b>NSW</b>	<b>Vic</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>ACT</b>	<b>NT</b>	<b>Australia<sup>(b)</sup></b>
<b><i>In the oral health therapy workforce</i></b>	<b>192</b>	<b>153</b>	<b>272</b>	<b>5</b>	<b>83</b>	<b>5</b>	<b>8</b>	<b>5</b>	<b>724</b>
<i>Employed in oral health therapy</i>	174	145	254	4	80	4	8	5	675
Clinician <sup>(c)</sup>	165	145	237	3	79	4	7	3	642
Non-clinician	9	—	18	n.p.	n.p.	—	n.p.	n.p.	32
<i>Looking for work in oral health therapy</i>	9	4	5	n.p.	—	n.p.	—	—	20
Employed elsewhere	n.p.	n.p.	n.p.	—	—	—	—	—	6
Not employed	6	n.p.	3	n.p.	—	n.p.	—	—	14
On extended leave of 3 months or more	10	5	12	—	3	—	—	—	30
<b><i>Not in oral health therapy workforce</i></b>	<b>5</b>	<b>—</b>	<b>8</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>14</b>
Overseas	—	—	n.p.	—	—	—	—	—	3
<i>Not looking for work in oral health therapy</i>	5	—	6	—	—	—	—	—	11
Employed elsewhere	n.p.	—	n.p.	—	—	—	—	—	3
Not employed	4	—	4	—	—	—	—	—	8
<b>Total registered oral health therapists</b>	<b>197</b>	<b>153</b>	<b>280</b>	<b>5</b>	<b>83</b>	<b>5</b>	<b>8</b>	<b>5</b>	<b>738</b>

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

(b) Includes oral health therapists who did not state or adequately describe their location, and those who were overseas.

(c) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

## Oral health therapists employed in oral health therapy

A person who reported working in oral health therapy in the week before the survey was considered to be an 'employed oral health therapist' (see Glossary).

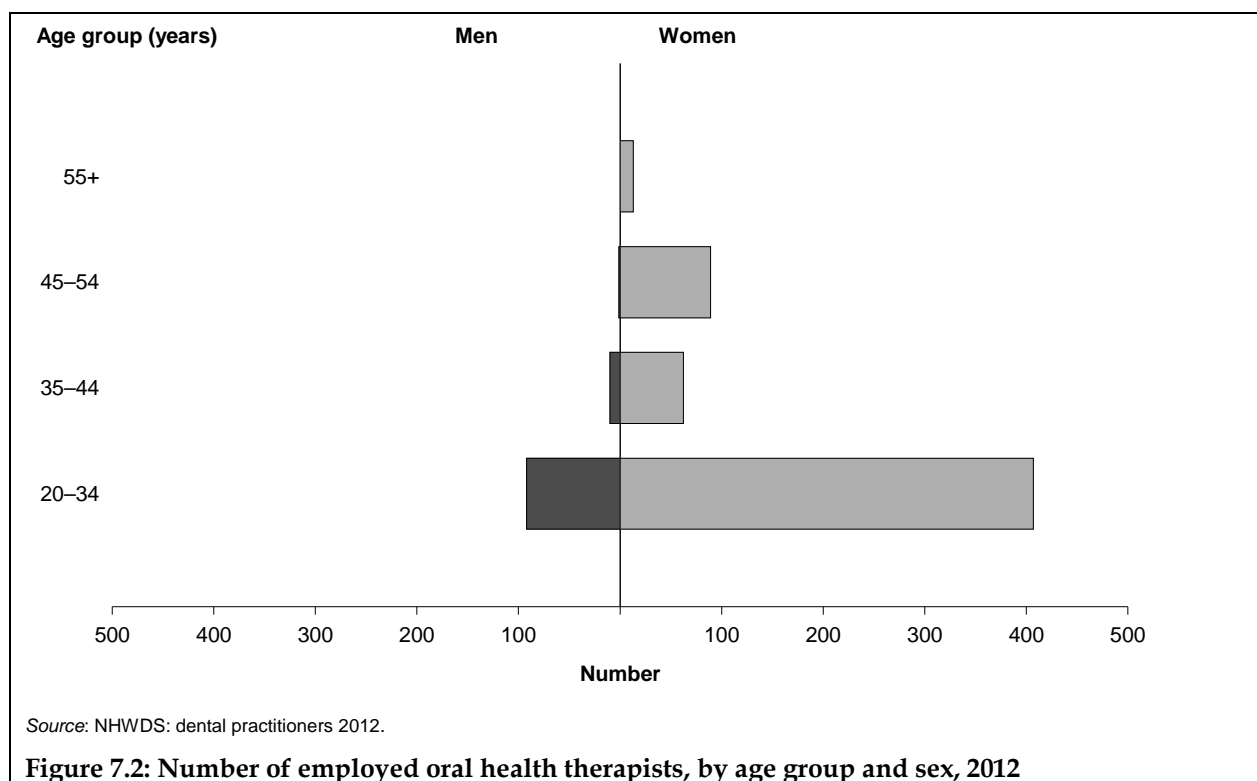
The remainder of this chapter focuses on the characteristics of oral health therapists employed in Australia (excluding those provisionally registered).

Across Australia, the overall supply of employed oral health therapists in 2012 was 2.6 FTE per 100,000 population (Table 7.4).

### Age and sex

In 2012, the average age of employed oral health therapists was 31.0 years. The majority of employed oral health therapists were women (84.7%) (Table 7.4).

There were more women than men across all age groups, with the most women in the 20–34 age group (407), followed by the 45–54 age group (89). For male oral health therapists, the 20–34 age group was the largest (92) (Figure 7.2).



## Aboriginal and Torres Strait Islander oral health therapists

There were 7 employed oral health therapists who identified as Aboriginal or Torres Strait Islander, representing about 1.0% of employed oral health therapists who responded to the question in the Dental Workforce Survey.

## Country of initial qualification

Of all employed oral health therapists, 651 received their initial oral health therapist qualification in Australia (96.4%) (Table 7.4).

**Table 7.4: Employed oral health therapists, by country of initial qualification, selected characteristics, 2012**

Country of initial qualification	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
Australia	651	31.0	1.7	84.7	33.8	2.5
New Zealand	10	32.6	n.p.	n.p.	32.6	—
Not stated/inadequately described	13	27.8	—	n.p.	32.1	—
<b>Total</b>	<b>675</b>	<b>31.0</b>	<b>1.9</b>	<b>84.7</b>	<b>33.7</b>	<b>2.6</b>

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

Source: NHWDS: dental practitioners 2012.

## Fields of oral health therapy

### Role in oral health therapy

The principal role in oral health therapy describes the types of work undertaken by employed oral health therapists. The 2012 survey categorised roles as clinician and non-clinician. The non-clinical roles comprised administrator, teacher/educator, researcher and other.

In 2012, the largest group was clinicians, accounting for 95.1% of employed oral health therapists. The smallest group was researchers, accounting for 0.7% of employed oral health therapists.

Oral health therapists working in a clinical role had the youngest average age of all the dental professions at 30.7 years, and the lowest proportion aged 55 and over (2.0%) (Table 7.5).

**Table 7.5: Employed oral health therapists, by principal role of main job, selected characteristics, 2012**

Principal role of main job	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
Clinician <sup>(b)</sup>	642	30.7	2.0	84.3	33.7	2.5
<i>Non-clinician</i>	32	37.0	—	<i>n.p.</i>	34.0	0.1
Administrator	6	44.5	—	<i>n.p.</i>	39.3	—
Teacher/educator	11	37.8	—	<i>n.p.</i>	37.4	—
Researcher	5	30.1	—	<i>n.p.</i>	25.6	—
Other	10	35.4	—	<i>n.p.</i>	31.5	—
<b>Total</b>	<b>675</b>	<b>31.0</b>	<b>1.9</b>	<b>84.7</b>	<b>33.7</b>	<b>2.6</b>

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

(b) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

### Area of oral health therapy

Respondents of the Dental Workforce Survey were asked to report the principal area of their main job in oral health therapy in the week before the survey. Nineteen response categories were provided, with only 1 response allowed. Table 7.6 provides these responses disaggregated by selected characteristics of the respondent.

Oral health therapy was the most common area of practice, with 48.1% of all employed oral health therapists working in this area (Table 7.6).

**Table 7.6: Employed oral health therapists, by principal area of main job, selected characteristics, 2012**

Principal area of main job	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Average weekly hours worked	FTE rate <sup>(a)</sup>
General dental practice	—	—	—	—	—	—
Dento-maxillofacial radiology	—	—	—	—	—	—
Endodontics	—	—	—	—	—	—
Oral and maxillofacial surgery	—	—	—	—	—	—
Oral surgery	—	—	—	—	—	—
Oral medicine	1	n.p.	—	100.0	n.p.	—
Oral pathology	—	—	—	—	—	—
Orthodontics	19	28.8	—	n.p.	35.2	0.1
Paedodontics	3	28.3	—	n.p.	34.7	—
Periodontics	4	28.9	—	n.p.	26.6	—
Prosthodontics	—	—	—	—	—	—
Public health dentistry	2	n.p.	—	n.p.	n.p.	—
Special needs dentistry	1	n.p.	—	n.p.	n.p.	—
Dental hygiene	144	29.3	0.7	88.6	31.0	0.5
Dental therapy	130	33.8	3.9	92.5	34.1	0.5
Dental prosthetic	—	—	—	—	—	—
Oral health therapy	325	30.6	2.2	82.3	34.7	1.3
Forensic odontology	—	—	—	—	—	—
Other	6	29.9	—	n.p.	31.2	—
Not stated/inadequately described	40	31.8	—	69.8	35.3	0.2
<b>Total</b>	<b>675</b>	<b>31.0</b>	<b>1.9</b>	<b>84.7</b>	<b>33.7</b>	<b>2.6</b>

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

Source: NHWDS: dental practitioners 2012.

## Work setting

Oral health therapists were asked to indicate the setting of their main job in oral health therapy in the week before completing the survey.

Private practice was the most commonly reported work setting among employed oral health therapists (56.7% of those working in a clinical role and 55.0% of all oral health therapists).

Oral health therapists working in an educational facility on average worked slightly more hours than those working in private practice as their main job – 33.4 compared with 32.8 hours per week for clinicians and 33.7 compared with 32.8 for all oral health therapists, respectively (Table 7.7).

**Table 7.7: Employed oral health therapists, by work setting of main job, by clinician<sup>(a)</sup> status, number and average weekly hours worked, 2012**

Work setting of main job	Clinician <sup>(a)</sup>		Total oral health therapists	
	Number	Average weekly hours worked	Number	Average weekly hours worked
Private practice	364	32.8	371	32.8
Aboriginal health service	3	39.1	4	33.8
Community healthcare services	41	36.7	45	35.2
Hospital	55	38.3	59	38.6
Residential healthcare services	1	n.p.	1	n.p.
Commercial/business services	—	—	—	—
Educational facility	128	33.4	139	33.7
Correctional services	—	—	2	23.0
Defence forces	—	—	—	—
Other government department or agency	10	36.7	13	36.9
Other	3	30.4	4	31.7
Not stated/inadequately described	36	32.9	36	32.9
<b>Total</b>	<b>642</b>	<b>33.7</b>	<b>675</b>	<b>33.7</b>

(a) A 'clinician' is a practitioner who spends the majority of their time working in the area of clinical practice (see Glossary).

Source: NHWDS: dental practitioners 2012.

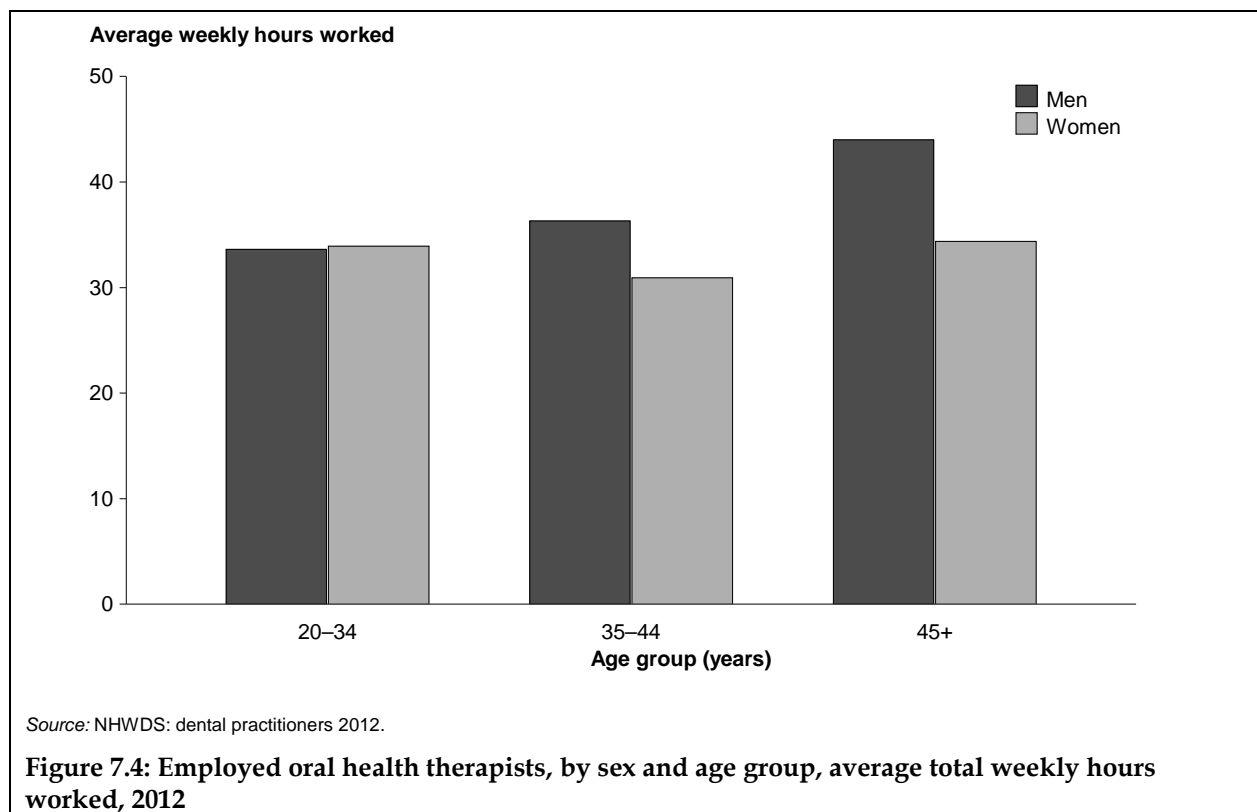
## Working hours

On average, employed oral health therapists worked 33.7 hours per week in 2012 (Table 7.8). About 2 in 5 (40.6%) oral health therapists worked part time (less than 35 hours per week) (Figure 7.3).



Male oral health therapists worked 34.0 hours per week on average, while female oral health therapists worked 33.7 hours on average (Table 7.10). The differences in average hours worked per week between male and female oral health therapists varied across the age groups (Figure 7.4).





### States and territories

On average, employed oral health therapists in Tasmania worked the most weekly hours (38.0) while those in Western Australia worked the least (29.8) (Table 7.8).

**Table 7.8: Employed oral health therapists, by state and territory<sup>(a)</sup> and sex, average total weekly hours worked, by sex, 2012**

Sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Men	30.8	34.3	36.6	—	37.6	—	40.0	23.0	34.0
Women	34.3	35.4	32.7	29.8	32.4	38.0	33.1	39.3	33.7
<b>Total</b>	<b>33.6</b>	<b>35.2</b>	<b>33.1</b>	<b>29.8</b>	<b>33.5</b>	<b>38.0</b>	<b>33.9</b>	<b>32.8</b>	<b>33.7</b>

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

(b) Includes oral health therapists who did not state or adequately describe their location, and those who were overseas.

Source: NHWDS: dental practitioners 2012.

## Remoteness areas

On average, oral health therapists working in *Inner regional* areas worked the most weekly hours (34.3) in 2012, while those in *Remote/Very remote* areas worked the least (31.2) (Table 7.9).

**Table 7.9: Employed oral health therapists, by remoteness area<sup>(a)</sup> and sex, average total weekly hours worked, by sex, 2012**

Sex	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Men	34.0	34.3	37.8	23.0	34.0
Women	33.5	34.4	33.6	33.6	33.7
<b>Total</b>	<b>33.6</b>	<b>34.3</b>	<b>33.9</b>	<b>31.2</b>	<b>33.7</b>

(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) Includes *Migratory* areas.

(c) Includes oral health therapists who did not state or adequately describe their location, and those who were overseas.

Source: NHWDS: dental practitioners 2012.

## Employment sector

Oral health therapists in the private sector worked more hours per week than their public sector counterparts (27.1 hours compared with 25.6 hours per week on average, respectively) (Table 7.10).

**Table 7.10: Employed oral health therapists, by employment sector, selected characteristics, 2012**

Characteristic	Private sector	Public sector
Number	472	308
Average age	28.9	33.7
Aged 55 and over (per cent)	0.6	3.6
Women (per cent)	83.3	88.1
Average weekly hours worked in sector	27.1	25.6
<b>FTE clinician number<sup>(a)</sup></b>	<b>336</b>	<b>208</b>

(a) Full-time equivalent (FTE) clinician number. FTE is based on clinical hours worked in sector (see Glossary).

Note: Oral health therapists appear in each sector they reported working in and so may be included in both sectors.

Source: NHWDS: dental practitioners 2012.

# Geographic profile of employed oral health therapists

## Remoteness areas

The supply of employed oral health therapists in Australia was highest in *Inner regional* areas (2.8 FTE per 100,000 population) and lowest in *Remote/Very remote* areas (1.4 FTE per 100,000 population) (Table 7.11).

**Table 7.11: Employed oral health therapists, by remoteness area<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Number	476	130	59	9	675
Average age	30.5	32.0	32.2	31.2	31.0
Aged 55 and over (per cent)	1.7	3.8	—	—	1.9
Women (per cent)	83.1	87.2	n.p.	n.p.	84.7
Average weekly hours worked	33.6	34.3	33.9	31.2	33.7
<b>FTE rate<sup>(d)</sup></b>	<b>2.6</b>	<b>2.8</b>	<b>2.6</b>	<b>1.4</b>	<b>2.6</b>

(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 oral health therapists who did not state or adequately describe their location, and those who were overseas.

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

Source: NHWDS: dental practitioners 2012.

## States and territories

In 2012, the highest number of employed oral health therapists was in Queensland (254), followed by New South Wales (174). The FTE rate was highest in Queensland, with 4.8 FTE per 100,000 population, while the lowest rate was in Western Australia (0.1) (Table 7.12).

**Table 7.12: Employed oral health therapists, by state and territory<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Number	174	145	254	4	80	4	8	5	675
Average age	29.3	25.6	37.1	25.5	25.7	25.3	32.0	26.4	31.0
Aged 55 and over (per cent)	0.6	—	4.7	—	—	—	—	—	1.9
Women (per cent)	79.9	82.5	91.1	n.p.	n.p.	n.p.	n.p.	n.p.	84.7
Average weekly hours worked	33.6	35.2	33.1	29.8	33.5	38.0	33.9	32.8	33.7
<b>FTE rate<sup>(c)</sup></b>	<b>2.1</b>	<b>2.4</b>	<b>4.8</b>	<b>0.1</b>	<b>4.3</b>	<b>0.7</b>	<b>2.0</b>	<b>1.8</b>	<b>2.6</b>

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

(b) Includes oral health therapists who did not state or adequately describe their location, and those who were overseas.

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

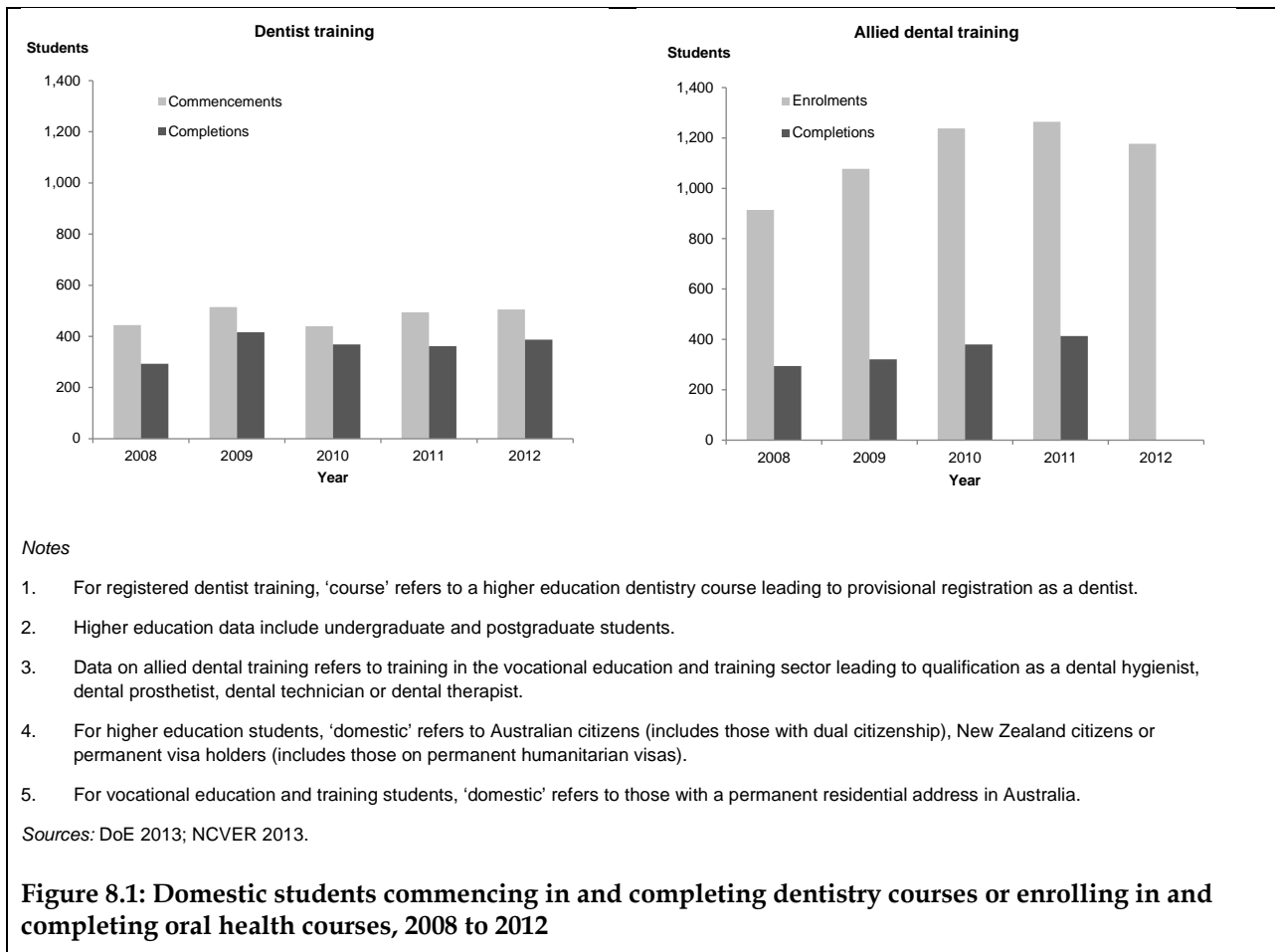
Source: NHWDS: dental practitioners 2012.

# 8 Sources of new entrants and re-entrants to the dental workforce

## Dental practitioner training

The main source of new entrants to the dental practitioner workforce is through the training of new graduates. Information on students commencing and completing higher education (university) courses in dentistry is derived from data provided by the Department of Education. Data on dental hygienist, therapist and prosthetist training are sourced from the National Centre for Vocational Education Research (NCVER).

To qualify as a dentist in Australia, a student must meet the entry requirements of 1 of the Australian tertiary education institutions offering dental courses, and then complete the required academic and clinical training. If dentists wish to specialise, they must complete extra study after completing a period of clinical experience in general practice.



Commencements in university-level undergraduate courses required for provisional registration as a dentist by domestic students in Australia have increased overall by 13.7%, from 444 in 2008 to 505 in 2012; however, there was a fall between 2009 and 2010 before a rise in 2011 and another in 2012. Over the same period, completions increased from 293 to 387 (32.1%), peaking at 416 in 2009 (Figure 8.1).

Enrolments in vocational education and training courses leading to qualifications as a dental hygienist, dental prosthetist, dental technician or dental therapist increased by 38.3%, from 914 in 2008 to 1,264 in 2011, and then decreased by 6.9% to 1,177 in 2012. Course completions increased by 40.5% from 294 in 2008 to 413 in 2011 (Figure 8.1).

## Dental practitioners not employed in dental health

The Dental Workforce Survey collects some basic information on those dental practitioners who are registered or enrolled, but who are not actively employed in dental health in Australia; that is, dental practitioners on extended leave, working overseas, employed elsewhere or not employed. This does not include dental practitioners who are not registered at the time of the survey.

Dentists who were not actively employed in dentistry in Australia were on average older than all employed dentists (45.0 compared with 43.4, respectively). Nearly half (48.5%) of dentists not actively employed in dentistry were women compared with more than a third (36.5%) of all employed dentists.

Among dentists not actively employed in dentistry in Australia, the group not looking for work in dentistry were aged an average of 42.6 years, while those working overseas were slightly older at 43.8. The group with the oldest average age are those dentists retired from regular work (64.8 years) (Table 8.1).

**Table 8.1: Dentists not actively employed in dentistry in Australia, by workforce status, selected characteristics, 2012**

Workforce status	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Metropolitan residence (per cent) <sup>(a)(b)</sup>
<b>Dentists not actively employed in dentistry in Australia</b>					
On extended leave of 3 months or more	438	41.2	20.2	60.4	94.3
Looking for work in dentistry	97	40.1	21.3	50.3	88.6
Employed elsewhere	11	33.8	n.p.	n.p.	89.6
Not employed	85	41.0	n.p.	n.p.	88.4
Overseas	416	43.8	20.3	35.9	40.9
Not looking for work in dentistry	302	42.6	22.3	60.2	85.8
Employed elsewhere	93	46.9	n.p.	n.p.	85.5
Not employed	210	40.7	19.7	66.8	86.0
Retired from regular work	169	64.8	89.2	26.7	92.5
<b>Total</b>	<b>1,421</b>	<b>45.0</b>	<b>28.9</b>	<b>48.5</b>	<b>76.3</b>
<b>Total employed dentists</b>					
	<b>13,266</b>	<b>43.4</b>	<b>23.4</b>	<b>36.5</b>	<b>93.2</b>

(a) Based on postcode of home residence matched to ASGS regions (see Glossary).

(b) Percentage calculations exclude 'Not stated' values for ASGS region of home residence. 'Metropolitan' includes *Major cities* and *Inner regional* areas.

Source: NHWDS: dental practitioners 2012.

Oral health practitioners not actively employed in oral health in Australia were on average younger than all employed oral health practitioners (38.7 compared with 41.7, respectively). Practitioners not actively employed in oral health were more likely to be women than all employed oral health practitioners (85.5% compared with 73.3%, respectively) (Table 8.2).

**Table 8.2: Oral health practitioners<sup>(a)</sup> not actively employed in oral health in Australia, by workforce status, selected characteristics, 2012**

Workforce status	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Metropolitan residence (per cent) <sup>(b)(c)</sup>
<b>Oral health practitioners<sup>(a)</sup> not actively employed in oral health in Australia</b>					
On extended leave of 3 months or more	195	36.8	9.4	84.6	92.4
<i>Looking for work in oral health</i>	74	35.8	<i>n.p.</i>	<i>n.p.</i>	91.2
Employed elsewhere	30	37.4	<i>n.p.</i>	<i>n.p.</i>	89.9
Not employed	44	34.7	<i>n.p.</i>	<i>n.p.</i>	92.0
Overseas	25	44.4	<i>n.p.</i>	<i>n.p.</i>	52.5
<i>Not looking for work in oral health</i>	147	39.5	8.3	92.8	87.0
Employed elsewhere	53	42.8	<i>n.p.</i>	<i>n.p.</i>	77.7
Not employed	95	37.7	<i>n.p.</i>	<i>n.p.</i>	92.2
Retired from regular work	18	56.9	<i>n.p.</i>	<i>n.p.</i>	87.8
<b>Total</b>	<b>460</b>	<b>38.7</b>	<b>11.2</b>	<b>85.5</b>	<b>88.1</b>
<b>Total employed oral health practitioners<sup>(a)</sup></b>					
	<b>4,315</b>	<b>41.7</b>	<b>15.4</b>	<b>73.3</b>	<b>91.0</b>

(a) Oral health practitioner includes dental hygienists, dental prosthetists, dental therapists and oral health therapists.

(b) Based on postcode of home residence matched to ASGS regions (see Glossary).

(c) Percentage calculations exclude 'Not stated' values for ASGS region of home residence. 'Metropolitan' includes *Major cities* and *Inner regional* areas.

Source: NHWDS: dental practitioners 2012.

# Appendix A Data Quality Statement— National Health Workforce Data Set: dental practitioners 2012

## Summary of key issues

The NHWDS: dental practitioners 2012 contains information on the demographics, employment characteristics, primary work location and work activity of all dental practitioners in Australia who renewed their registration with the Dental Board of Australia via the National Registration and Accreditation Scheme (NRAS) introduced on 1 July 2010.

This is the second data published for dental practitioners from the NRAS. The data set is comprised of registration information provided by the Australian Health Practitioner Regulation Agency (AHPRA) and workforce details obtained by the Dental Workforce Survey.

This data quality statement should be read in conjunction with the footnotes and commentary accompanying tables and graphs throughout the *Dental workforce 2012* report.

## Description

The NHWDS: dental practitioners 2012 is a combination of data collected through the dental practitioner registration renewal process.

### Registration data

All dental practitioners must be registered with the AHPRA to practise in Australia. Dental practitioners are required by law to renew their registration through the NRAS, either online via the AHPRA website or using a paper form provided by the AHPRA. For initial registration, practitioners must use a paper form and provide supplementary supporting documentation.

Whether for renewal or initial registration, this information is referred to as 'registration data'. Data collected includes:

- demographic information such as age, sex and country of birth
- details of health qualification(s)
- registration status.

This is the compulsory component of the registration process.

Registration details on NHWDS: dental practitioners 2012 were collected either from the compulsory registration renewal form, new registrations or registration details migrated from the respective state and territory health boards before their dissolution. Copies of registration forms for new registrants are available on the Dental Board of Australia (DBA) website, which can be accessed from the AHPRA website <<http://www.ahpra.gov.au>>.

## Dental Workforce Survey data

When dental practitioners renew their registration online, they are asked to complete an online survey. When dental practitioners renew their registration using a paper form they are also asked to complete a paper version of the survey.

Dentists, oral health therapists, dental hygienists, dental therapists and dental prosthetists complete the same survey form.

A copy of the Dental Workforce Survey questionnaire is available from the AIHW website <<http://www.aihw.gov.au/workforce-publications/>> (select link to Dental workforce 2012, additional material).

## Database creation

The AHPRA stores both the online registration data and the survey information in separate databases. They send these 2 de-identified data sets to the Australian Institute of Health and Welfare (AIHW), where they are merged into a national data set.

The paper registration and survey forms are sent to the AHPRA, where the paper registration forms are scanned and merged with the data obtained from the online process. The AHPRA sends the paper survey forms to the Health Workforce Australia (HWA) to be scanned into a data set. The HWA sends this data set to the AIHW for merging with the online survey forms and registration data, cleansing (including derivation of primary dental practitioner type) and adjustment for non-response to form a nationally consistent data set. The final data set is then known as the National Health Workforce Data Set: dental practitioners.

The AHPRA collects information on each division of general registration; that is, dentist, oral health therapist, dental hygienist, dental therapist and dental prosthetist. It is possible for dental practitioners to have more than 1 division of general registration e.g. registered as a dental hygienist and dental therapist. The AIHW assigns a primary registration division to practitioners with more than 1 division of general registration. The method used changed from 2011 to 2012 (see Box A1); therefore, comparison of 2011 and 2012 data should be made with caution.

### **Box A1: Primary dental division of general registration**

In the NHWDS: dental practitioners, dental practitioners who are registered in more than 1 division of general registration have been assigned a primary (or main) division. The methodology to assign a primary dental division of general registration changed from 2011 to 2012, with the treatment of practitioners with both dental hygiene and dental therapy registrations being the main difference.

In 2011, oral health therapists included those with both dental therapy and dental hygienist registrations. In 2012, practitioners with both dental hygiene and dental therapy registrations were treated as either a dental therapist or dental hygienist depending on other eligibility criteria (e.g. principal area of main job, whether worked more hours in private or public sector and geographic location). The different methods may, in part, have contributed to a 30.6% decrease in oral health therapists and an increase in dental hygienists and dental therapists (36.1% and 8.3%, respectively).

Further details of the 2011 and 2012 methods are below.

*(continued)*



### **Box A1 (continued): Primary dental division of general registration**

#### **2011 method**

The method was based on the following criteria applied to dental practitioners with 2 types of general registrations:

- If they had both dental hygienist and dental prosthetist registrations, then the practitioner was treated as a dental hygienist.
- If they had both dental therapist and dental prosthetist registrations, then the practitioner was treated as a dental therapist.
- If they had both dental hygienist and dental therapist registrations, then the practitioner was treated as an oral health therapist.

#### **2012 method**

Dental practitioners are assigned a primary division of registration based on the following criteria in the order listed:

- If they have a dentist registration, then the practitioner is treated as a dentist.
- If they have an oral health therapist registration, then the practitioner is treated as an oral health therapist.
- If they have both dental hygienist and dental therapist registrations and if their principal area of practice is dental hygiene, then the practitioner is treated as a dental hygienist.
- If they have both dental hygienist and dental therapist registrations and if their principal area of practice is dental therapy, then the practitioner is treated as a dental therapist.
- If they have both dental hygienist and dental therapist registrations and if they are in Western Australia and work the majority of hours in the private sector, then they are treated as a dental therapist.
- If they have both dental hygienist and dental therapist registrations and if they are not in Western Australia and work the majority of hours in the private sector, then they are treated as a dental hygienist.
- If they have both dental hygienist and dental therapist registrations and if they work the majority of hours in the public sector, then they are treated as a dental therapist.
- The remaining practitioners with both dental hygienist and dental therapist registrations are treated as dental hygienists.
- The remaining practitioners with a dental hygienist registration are treated as a dental hygienist.
- The remaining practitioners with a dental therapist registration are treated as a dental therapist.
- The remaining practitioners with a dental prosthetist registration are treated as a dental prosthetist.

*Source:* HWA 2013.

# Institutional environment

## **Australian Institute of Health and Welfare**

The AIHW is a major national agency set up by the Australian Government under the *Australian Institute of Health and Welfare Act 1987* to provide reliable, regular and relevant information and statistics on Australia's health and welfare. It is an independent statutory authority established in 1987, governed by a management board, and accountable to the Australian Parliament through the Health portfolio.

The AIHW aims to improve the health and wellbeing of Australians through better health and welfare information and statistics. It collects and reports information on a wide range of topics and issues, ranging from health and welfare expenditure, hospitals, disease and injury, and mental health, to ageing, homelessness, disability and child protection.

The Institute also plays a role in developing and maintaining national metadata standards. This work contributes to improving the quality and consistency of national health and welfare statistics. The Institute works closely with governments and non-government organisations to achieve greater adherence to these standards in administrative data collections to promote national consistency and comparability of data and reporting.

One of the main functions of the AIHW is to work with the states and territories to improve the quality of administrative data and, where possible, to compile national data sets based on data from each jurisdiction, and to analyse these data sets and disseminate information and statistics.

The *Australian Institute of Health and Welfare Act 1987*, in conjunction with compliance to the *Privacy Act 1988* (Cwlth), ensures that the data collections managed by the AIHW are kept securely and under the strictest conditions with respect to privacy and confidentiality. For further information, see the AIHW website <<http://www.aihw.gov.au>>.

The AIHW is the data custodian of the NHWDS: dental practitioners 2012.

## **Australian Health Practitioner Regulation Agency**

The AHPRA is the organisation responsible for the implementation of the NRAS across Australia. The AHPRA works with the National Health Practitioner Boards to regulate health practitioners in the public interest and to ensure a competent and flexible health workforce that meets the current and future needs of the Australian community.

## **Health Workforce Australia**

The HWA is an Australian government agency established by the Council of Australian Governments to address the challenges of providing a skilled, flexible and innovative health workforce that meets the needs of the Australian community. The HWA are responsible for the development of the Dental Workforce Survey and other profession-specific workforce surveys.

## Timeliness

The NHWDS: dental practitioners, is produced annually from the national registration renewal process, and conducted between 1 October and 30 November (the renewal date) each year. Although the reference time is notionally the renewal date, legislation allows for a 1 month period of grace. Thus, the final registration closure date is 1 month after the renewal date. The AHPRA allows a further 2 weeks to allow for mail and data entry delays before the registrations are considered expired. Consequently the extraction of data occurs (the extraction date) a month and a half after the renewal date.

The survey data are also collected between 1 October and 30 November, as their collection is administered as part of the registration renewal process.

The exceptions to this timetable are in relation to limited and provisional registrations, where the registrant is renewed on the anniversary of their commencement. These responses are included with the regular survey respondents.

Due to significant delays with release of data from the new national registration system, complete and final data were provided to the AIHW much later than originally scheduled.

Data provided needed joint reviews by the AHPRA, AIHW and HWA to manage the range of considerations and data quality issues. This review process improved data quality, data definitions, metadata and data cleansing. The process also led to improvements in AHPRA's extracting scripts to provide consistency in data exchange specifications. This process delayed the supply of data but improved the overall quality. The HWA has provided funding and assistance to the AHPRA to improve their survey tool infrastructure to improve timeliness and quality of data provision in future.

The AIHW did not receive complete data for 2012 until July 2013. The AHPRA have indicated that future data provision is anticipated to be timely and be 6 weeks from the close of registration on 30 November.

## Accessibility

Results from the NHWDS: dental practitioners 2012 are published in the *Dental workforce 2012* report. The report and workforce survey questionnaire are available from the AIHW website <<http://www.aihw.gov.au/workforce-publications/>> (select link to Dental workforce 2012).

Users can request data not available online or in reports via the AIHW Media and Strategic Engagement Unit on (02) 6244 1032 or via email to <[info@aihw.gov.au](mailto:info@aihw.gov.au)>. Requests that take longer than half an hour to compile are charged for on a cost-recovery basis.

Access to the master unit record file may be requested through the AIHW Ethics Committee.

The HWA provides a data tabulation tool, including data from the National Health Workforce Data Set, on their website <<http://www.hwa.gov.au/work-programs/information-analysis-and-planning/health-workforce-data>>.

## Interpretability

Descriptions of data items in the NHWDS: dental practitioners 2012 are available on request from the Expenditure and Workforce Unit at the AIHW.

The Dental Workforce Survey questionnaire is available from the AIHW website <<http://www.aihw.gov.au/workforce-publications/>> (select link to Dental workforce 2012, additional material).

## Relevance

The primary purpose of the NHWDS: dental practitioners 2012 is to provide information on the number and demographic and employment characteristics of dental practitioners.

The NHWDS: dental practitioners 2012 is relevant for understanding the size and characteristics of the dental workforce in Australia.

The NHWDS: dental practitioners 2012 is therefore highly relevant for health agencies involved in workforce planning, as well as health policy planning and implementation in general.

The location and distribution of the workforce, as well as demographic details such as age and sex of dental practitioners are highly useful for workforce planning within states and territories and nationally. Information on qualifications is relevant for the relevant professional associations and educational planning.

## Scope and coverage

The NHWDS: dental practitioners 2012 contains registration details of all the registered dental practitioners in Australia at the extraction date, a month and a half after the nominal renewal date of 30 November 2012.

The NHWDS: dental practitioners 2012 also contain details from the Dental Workforce Survey. The survey collects information on the employment characteristics, work locations and work activity of dental practitioners. Completion of the survey is voluntary and only dental practitioners who are on the register at the time of the survey and required to renew their registration receive a questionnaire for completion. New registrants registering outside the registration renewal period will not receive a survey form. These practitioners will receive a survey form when they renew their registration the following year.

## Accuracy

### Estimation procedures

The AIHW uses registration data together with survey data to derive estimates of the total dental practitioner workforce. Not all dental practitioners who receive a survey respond, because it is not mandatory to do so. In deriving the estimates, 2 sources of non-response to the survey are accounted for:

- item non-response – occurs as some respondents return partially completed surveys. Some survey records were so incomplete that it was decided to omit them from the reported survey data.

- survey non-response – occurs because not all registered practitioners who receive a questionnaire respond.

A separate estimation procedure is used for each. Imputation is used to account for item non-response, and weighting for survey non-response.

### **Imputation: estimation for item non-response**

The imputation process involves an initial examination of all information provided by a respondent. If possible, a reasonable assumption is made about any missing information based on responses to other survey questions. For example, if a respondent provides information on hours worked and the area in which they work, but leaves the workforce question blank, it is reasonable to assume that they were employed.

Missing values remaining after this process are considered for their suitability for further imputation. Suitability is based on the level of non-response to that item. Imputation is usually applied only in cases where the proportion of missing values is less than 5% of the total.

In imputation, the known probabilities of particular responses occurring are used to assign a response category value to each record using a random number generator or the sequential hot deck imputation method. Imputed values are based on the distribution of responses occurring in the responding sample. Therefore, fundamental to imputing missing values for survey respondents who returned partially completed questionnaires is the assumption that respondents who answer various questions are similar to those who do not.

Age and sex values within each state and territory of principal practice are first imputed to account for missing values. Other variables deemed suitable for this process were then imputed. These include hours worked in the week before the survey and principal role of main job.

### **Weighting: estimation for population non-response**

Each survey record (or respondent) is assigned a weight that is calibrated to align with independent data on the population of interest, referred to as 'benchmarks'. In principle, this weight is based on the population number (the benchmark) divided by the number in the responding sample. The resulting fraction becomes the expansion factor applied to the record, referred to as the 'weight', providing an estimate of the population when aggregate output is generated. Therefore, the weight for each record is based on particular characteristics that are known for the whole population.

The total number of registered dental practitioners is used to benchmark the survey.

The calculation of weights is usually part of the data processing for a sample survey in which the sample is selected before the survey is done. In the 2012 survey of dental practitioners, all renewing registrants were sent a workforce survey questionnaire when registration renewal was due. Therefore, technically, it was a census of dental practitioners. However, because not all renewing registrants in scope respond to the survey, there is a non-response bias in the data. Because the group of respondents in the data set is not random, standard errors are not a suitable means of gauging variability.

The benchmark data used for weighting are the number of registered dental practitioners in each state and territory (based on the location of principal practice), within the registration data, grouped by:

- broad registration type—'general and specialist' (including people with only a specialist registration), 'provisional', 'non-practising' and 'general' (including general and limited registrations)
- type of dental practitioner—'dentist', 'oral health therapist', 'dental hygienist', 'dental therapist' and 'dental prosthetist'
- whether registered in the profession or not
- age group
- sex.

Producing estimates for the dental profession by weighting the data from respondents adjusts for bias in the responding group of dental practitioners, but only for known population characteristics (such as age and sex, where provided). If information for a variable is not known for the whole population, the variable cannot be used in the calculation of weights and cannot be used in the adjustment process.

For variables not used in the calculation of weights (for the NHWDS: dental practitioners 2012, that is all variables other than state and territory of principal practice, broad registration type, type of dental practitioner, whether registered or not, age and sex), it is assumed, for estimation purposes, that respondents and non-respondents have the same characteristics. If the assumption is incorrect, and non-respondents are different from respondents, then the estimates will have some bias.

The extent of this cannot be measured without obtaining more detailed information about non-respondents. Therefore, there will be some unquantifiable level of bias in the estimates.

## Survey responses

The response rates for each dental practitioner type are listed in Table A1.

**Table A1: Survey response rates, by practitioner type, states and territories<sup>(a)</sup>, 2011 and 2012**

Practitioner type and Survey year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia	
Dentist	2011	89.2	87.5	87.7	85.3	91.5	87.6	91.2	84.9	<b>88.3</b>
	2012	93.0	91.4	92.0	90.9	90.9	92.7	93.2	95.8	<b>92.1</b>
Oral health therapist	2011	80.8	83.5	86.8	88.2	87.7	66.7	88.9	90.9	<b>85.2</b>
	2012	81.5	83.2	92.5	100	67.1	80.0	100	80.0	<b>84.7</b>
Dental hygienist	2011	88.8	94.6	91.5	84.3	84.4	85.7	100	100	<b>88.7</b>
	2012	90.9	97.5	96.2	95.1	93.8	100	96.1	92.3	<b>94.5</b>
Dental therapist	2011	95.9	92.2	90.0	87.6	97.2	94.4	93.3	100	<b>91.9</b>
	2012	94.4	95.6	94.4	94.3	96.5	100	88.9	94.7	<b>94.9</b>
Dental prosthetist	2011	89.4	83.7	86.0	81.8	91.1	94.1	93.3	80.0	<b>87.0</b>
	2012	92.1	89.3	92.7	91.9	96.2	100	92.3	100	<b>92.0</b>
<i>All dental practitioners</i>	2011	89.2	87.5	87.7	85.5	90.6	89.5	92.5	87.8	<b>88.3</b>
	2012	92.5	91.5	92.5	92.1	90.7	95.2	93.5	94.9	<b>92.2</b>

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

Sources: NHWDS: dental practitioners, 2011 and 2012.

Data are reported on the basis of the most current address at the time the survey was completed, unless stated otherwise. The data include employed dental practitioners who did not state or adequately describe their location, as well as employed dental practitioners who were overseas. Therefore, the national estimates include these groups.

## Coherence

This is the second time data on dental practitioners has been produced using data collected through the NRAS. The 2011 and 2012 data for oral health therapists, dental hygienists and dental therapists are not directly comparable due to a change in the methodology to derive the primary practitioner type of those practitioners registered to practise in more than 1 dental profession (see Box A1). Data for dentists and dental prosthetists are generally comparable from 2011 to 2012.

The Dental Workforce Survey questionnaire changed from 2011 to 2012. Firstly, the 2012 survey asked 3 additional questions. These questions relate to:

- country of initial qualification
- method used to qualify for registration in Australia for dental practitioners whose initial qualification is from overseas
- the job location details when a dental practitioner works in a regional, rural or remote area.

Secondly, the principal area of main job question has 5 new response categories – dental hygiene, dental therapy, dental prosthetic, oral health therapy and forensic odontology; as a result, data are not directly comparable from 2011 to 2012. Lastly, the ‘Other community healthcare service’ work setting category in the 2012 survey replaced the ‘Community healthcare service’ category in 2011; as a result, comparison of these work settings are not directly comparable and should be made with caution.

There was also a change in population estimates used for calculating full-time equivalent (FTE) rates. The FTE rates for 2011 and 2012 in the *Dental workforce 2012* report are derived using population estimates based on the 2011 Census of Population and Housing, and released by the ABS on 30 August 2013. Whereas, the FTE rates for 2011 published in the *Dental workforce 2011* report used 2006 Census-based population estimates. As a result, the FTE rates for 2011 published in *Dental workforce 2011* may not be equivalent to those reported in the *Dental workforce 2012* report.

Due to the differences in data collection methods, including survey design and questionnaire, data for 2011 and 2012 are not directly comparable with data published by the AIHW prior to 2010, and therefore comparisons should be made with caution. Data published by the AIHW prior to 2010 were based on jurisdiction-based board registration and survey data; while data for 2011 and 2012 are collected through the NRAS.

# Appendix B Recognised dental specialties

In Australia, 13 specialties are recognised for registration, and are provided as accredited training programs in 6 dental schools (DBA 2013c). The recognised specialties are described below.

## **Dental-maxillofacial radiology**

Dental-maxillofacial radiology is concerned with diagnostic imaging procedures applicable to the hard and soft tissues of the oral and maxillofacial region, and to other structures that are relevant for the proper assessment of oral conditions.

## **Endodontics**

Endodontics is concerned with the morphology and pathology of the pulpo-dentine complex and periradicular tissues. Its study and practice encompasses the basic clinical sciences including the biology of the normal pulp, and the aetiology, diagnosis, prevention and treatment of diseases and injuries to the pulp and associated periradicular tissues.

## **Oral and maxillofacial surgery**

The part of surgery concerned with the diagnosis and surgical and adjunctive treatment of diseases, injuries and defects of human jaws and associated structures.

## **Oral medicine**

Oral medicine is concerned with the oral health care of patients with chronic and medically related disorders of the oral and maxillofacial region and with their diagnosis and nonsurgical management.

## **Oral pathology**

The branch of pathology concerned with the nature of diseases affecting the oral, maxillofacial and adjacent regions.

## **Oral surgery**

Oral surgery is concerned with the diagnosis and surgical management of conditions affecting the oral and dento-alveolar tissues.

## **Orthodontics**

Orthodontics is concerned with the supervision, guidance and correction of the growing and mature dentofacial structures; it includes the diagnosis, prevention, interception and treatment of all forms of malocclusion of the teeth and associated alterations in their surrounding structures.

## **Paediatric dentistry**

Paediatric dentistry (paedodontics) is concerned with preventive and therapeutic oral health care for children from birth through to adolescence and those with special needs. It includes management of orofacial problems related to medical, behavioural, physical or developmental disabilities.

## **Periodontics**

Periodontics is concerned with the prevention, diagnosis and treatment of diseases or abnormalities of the supporting tissues of the teeth and their substitutes.



**Prosthodontics**

Prosthodontics is concerned with the restoration and maintenance of oral health, function and appearance by coronal alteration or reconstruction of the natural teeth, or the replacement of missing teeth and contiguous oral and maxillofacial tissues with substitutes.

**Public health dentistry**

Public health dentistry (community dentistry) is concerned with the oral health education of the public, applied dental research and administration of dental care programs including prevention and control of oral diseases on a community basis.

**Special needs dentistry**

Special needs dentistry is concerned with the oral health care of people with an intellectual disability, medical, physical or psychiatric conditions that require special methods or techniques to prevent or treat oral health problems or where such conditions necessitate special dental treatment plans.

**Forensic odontology**

Forensic odontology is concerned with the examination and evaluation of dental evidence, which may then be presented in the interests of justice.

Forensic odontologists are involved in:

- identification of unknown human remains
- identification of deceased individuals following mass disasters
- examination and assessment of bite mark injuries
- examination and assessment of facial injuries following assault or trauma
- age assessment of both living and deceased persons
- examination and assessment of child abuse injuries
- civil cases involving malpractice and fraud allegations.

Approved programs of study leading to these qualifications are listed on the AHPRA website at <<http://www.ahpra.gov.au/Education/Approved-Programs-of-Study.aspx>>.

# Appendix C Dental specialties tables

Table C1: Employed dentists not working in the area of general dental practice, by specialty, selected characteristics, 2012

Specialty	Number	Average age	Aged 55 and over (per cent)	Women (per cent)	Major cities <sup>(a)</sup> (per cent) <sup>(b)</sup>	Private practice (per cent)	Average weekly hours worked	FTE rate <sup>(c)</sup>
Dental-maxillofacial radiology	7	50.3	n.p.	n.p.	n.p.	n.p.	39.1	—
Endodontics	132	46.4	24.9	19.2	97.7	79.7	40.9	0.6
Oral and maxillofacial surgery	166	52.4	41.6	8.5	90.2	74.3	44.4	0.9
Oral medicine	23	46.0	n.p.	n.p.	n.p.	n.p.	38.7	0.1
Oral pathology	6	51.9	n.p.	n.p.	n.p.	—	45.0	—
Oral surgery	18	58.8	n.p.	n.p.	n.p.	n.p.	39.6	0.1
Orthodontics	518	50.8	40.1	19.9	81.1	83.1	37.2	2.2
Paediatric dentistry	89	43.9	n.p.	n.p.	n.p.	n.p.	38.9	0.4
Periodontics	178	48.2	31.0	26.3	93.1	80.4	38.2	0.8
Prosthodontics	157	51.6	39.7	12.9	94.8	73.9	40.1	0.7
Public health dentistry (community dentistry)	11	53.6	n.p.	n.p.	n.p.	—	35.1	—
Special needs dentistry	13	50.9	n.p.	n.p.	n.p.	n.p.	37.9	0.1
Forensic odontology	12	55.6	n.p.	n.p.	n.p.	n.p.	30.5	—
<b>All</b>	<b>1,330</b>	<b>49.9</b>	<b>36.6</b>	<b>22.1</b>	<b>89.1</b>	<b>75.0</b>	<b>39.1</b>	<b>6.0</b>

(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).

Source: NHWDS: dental practitioners 2012.

**Table C2: Employed dental specialists not working in the area of general dental practice, by remoteness area<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	Major cities	Inner regional	Outer regional	Remote/Very remote <sup>(b)</sup>	Australia <sup>(c)</sup>
Number	1,185	106	34	2	<b>1,330</b>
Average age	49.6	53.5	51.5	n.p.	<b>49.9</b>
Aged 55 and over (per cent)	35.4	45.7	n.p.	n.p.	<b>36.6</b>
Women (per cent)	23.3	11.4	n.p.	—	<b>22.1</b>
Private practice (per cent) <sup>(d)</sup>	74.9	81.4	n.p.	n.p.	<b>75.0</b>
Average weekly hours worked	39.2	38.2	n.p.	n.p.	<b>39.1</b>
FTE rate <sup>(e)</sup>	7.6	2.6	1.7	0.4	<b>6.0</b>

(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 specialists who did not state or adequately describe their location and those who were overseas.

(d) Proportion of specialist dentists with a work setting of main job being: Solo private practice, Group private practice or Locum private practice.

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

Source: NHWDS: dental practitioners 2012.

**Table C3: Employed dental specialists not working in the area of general dental practice, by state and territory<sup>(a)</sup>, selected characteristics, 2012**

Characteristic	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(b)</sup>
Number	401	345	263	132	125	21	35	6	<b>1,330</b>
Average age	50.4	48.8	49.7	48.9	53.0	54.1	47.3	58.5	<b>49.9</b>
Aged 55 and over (per cent)	38.5	32.8	33.6	32.6	48.8	n.p.	n.p.	n.p.	<b>36.6</b>
Women (per cent)	20.9	27.3	18.5	25.1	22.3	n.p.	n.p.	—	<b>22.1</b>
Major cities <sup>(c)</sup> (per cent) <sup>(d)</sup>	91.0	92.9	84.0	96.2	94.3	—	n.p.	—	<b>89.1</b>
Private practice (per cent) <sup>(e)</sup>	74.4	77.1	72.7	76.6	76.4	n.p.	n.p.	n.p.	<b>75.0</b>
Average weekly hours worked	39.7	38.4	39.5	39.3	37.7	39.4	42.5	33.3	<b>39.1</b>
FTE rate <sup>(f)</sup>	5.7	6.2	6.0	5.6	7.5	4.3	10.3	2.2	<b>6.0</b>

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

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

(c) 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'.

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

(e) Proportion of specialist dentists with a work setting of main job being: Solo private practice, Group private practice or Locum private practice.

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

Source: NHWDS: dental practitioners 2012.

# Appendix D Number of dental practitioners registered by the Australian Health Practitioner Regulation Agency

Numbers of registered dental practitioners, as at 31 December 2012, from the Australian Health Practitioner Regulation Agency are contained in tables D1 and D2 for comparison purposes.

**Table D1: Registered dental practitioners, by principal place of practice and registration type, as reported by the Australian Health Practitioner Regulation Agency, 31 December 2012**

Registration type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Not stated	Australia
<b>Number</b>										
General	5,455	3,918	3,447	2,078	1,478	305	318	127	372	17,498
General and specialist	448	370	290	146	134	22	40	7	39	1,496
Limited	102	109	65	36	38	6	—	—	7	363
Non-practising	98	104	42	60	13	4	3	1	50	375
Specialist	8	8	1	2	3	—	—	1	4	27
<b>Total</b>	<b>6,111</b>	<b>4,509</b>	<b>3,845</b>	<b>2,322</b>	<b>1,666</b>	<b>337</b>	<b>361</b>	<b>136</b>	<b>472</b>	<b>19,759</b>
<b>Percentage of total registrations</b>										
General	89.3	86.9	89.6	89.5	88.7	90.5	88.1	93.4	78.8	88.6
General and specialist	7.3	8.2	7.5	6.3	8.0	6.5	11.1	5.1	8.3	7.6
Limited	1.7	2.4	1.7	1.6	2.3	1.8	—	—	1.5	1.8
Non-practising	1.6	2.3	1.1	2.6	0.8	1.2	0.8	0.7	10.6	1.9
Specialist	0.1	0.2	—	0.1	0.2	—	—	0.7	0.8	0.1
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: AHPRA 2013b.

**Table D2: Registered dental practitioners, by principal place of practice and dental division, as reported by the Australian Health Practitioner Regulation Agency, 31 December 2012**

Dental divisions	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Not stated	Australia
	<b>Number</b>									
Dental hygienist	348	177	123	290	232	16	46	7	16	1,255
Dental hygienist and dental prosthetist	1	—	1	—	—	—	—	—	—	2
Dental hygienist and dental prosthetist and dental therapist	1	1	—	—	—	—	—	—	—	2
Dental hygienist and dental therapist	60	132	173	54	70	1	11	7	2	510
Dental hygienist and dental therapist and dentist	—	—	—	—	1	—	—	—	—	1
Dental hygienist and dentist	1	—	—	—	—	—	1	—	—	2
Dental prosthetist	424	333	229	90	54	52	14	5	4	1,205
Dental therapist	241	175	212	341	103	53	18	17	1	1,161
Dental and therapist	1	—	—	—	—	—	—	—	—	1
Dentist	4,872	3,596	2,841	1,560	1,130	210	265	97	332	14,903
Dentist and oral health therapist	1	—	—	—	—	—	—	—	—	1
Oral health therapist	183	150	277	5	83	5	8	4	1	716
<b>Dental practitioner total</b>	<b>6,133</b>	<b>4,564</b>	<b>3,856</b>	<b>2,340</b>	<b>1,673</b>	<b>337</b>	<b>363</b>	<b>137</b>	<b>356</b>	<b>19,759</b>
	<b>Percentage of total registrations</b>									
Dental hygienist	5.7	3.9	3.2	12.4	13.9	4.7	12.7	5.1	4.5	6.4
Dental hygienist and dental prosthetist	—	—	—	—	—	—	—	—	—	—
Dental hygienist and dental prosthetist and dental therapist	—	—	—	—	—	—	—	—	—	—
Dental hygienist and dental therapist	1.0	2.9	4.5	2.3	4.2	0.3	3.0	5.1	0.6	2.6
Dental hygienist and dental therapist and dentist	—	—	—	—	0.1	—	—	—	—	—
Dental hygienist and dentist	—	—	—	—	—	—	0.3	—	—	—
Dental prosthetist	6.9	7.3	5.9	3.8	3.2	15.4	3.9	3.6	1.1	6.1
Dental therapist	3.9	3.8	5.5	14.6	6.2	15.7	5.0	12.4	0.3	5.9
Dental and therapist	—	—	—	—	—	—	—	—	—	—
Dentist	79.4	78.8	73.7	66.7	67.5	62.3	73.0	70.8	93.3	75.4
Dentist and oral health therapist	—	—	—	—	—	—	—	—	—	—
Oral health therapist	3.0	3.3	7.2	0.2	5.0	1.5	2.2	2.9	0.3	3.6
<b>Dental practitioner total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: AHPRA 2013b.

## Appendix E Population estimates

This report presents time series information about the supply of employed dental practitioners, measured using full-time equivalent (FTE) rate. To derive this measure, the population estimates (often referred to as estimated resident population) are obtained from the ABS. The estimates are as at 30 June for each year and based on the 2011 Census of Population and Housing adjusted for population flows, including births, deaths, net migration, and short-term travellers to Australia and absences from Australia (Table E1).

**Table E1: Population estimates at 30 June, by remoteness area and state and territory, 2011 and 2012**

Remoteness area	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia <sup>(a)</sup>
<b>2011</b>									
Major cities	5,333,092	4,215,005	2,769,947	1,798,688	1,200,476	..	367,375	..	15,684,583
Inner regional	1,403,271	1,072,926	910,332	210,948	177,396	335,138	610	..	4,111,010
Outer regional	443,177	245,112	659,995	181,852	201,777	165,445	..	129,106	2,026,464
Remote	30,533	4,774	78,135	98,881	45,164	8,454	..	48,700	314,641
Very remote <sup>(b)</sup>	8,456	..	58,369	63,040	14,801	2,446	..	53,486	203,326
<b>Total</b>	<b>7,218,529</b>	<b>5,537,817</b>	<b>4,476,778</b>	<b>2,353,409</b>	<b>1,639,614</b>	<b>511,483</b>	<b>367,985</b>	<b>231,292</b>	<b>22,340,024</b>
<b>2012</b>									
Major cities	5,403,360	4,294,000	2,828,456	1,862,676	1,214,013	..	374,245	..	15,976,750
Inner regional	1,414,178	1,084,544	927,070	218,830	179,544	335,925	667	..	4,161,150
Outer regional	444,541	245,850	671,853	185,184	202,427	165,639	..	131,938	2,047,432
Remote	30,596	4,728	79,458	101,216	45,459	8,363	..	49,149	318,969
Very remote <sup>(b)</sup>	8,459	..	58,692	64,800	14,856	2,406	..	54,095	206,051
<b>Total</b>	<b>7,301,134</b>	<b>5,629,122</b>	<b>4,565,529</b>	<b>2,432,706</b>	<b>1,656,299</b>	<b>512,333</b>	<b>374,912</b>	<b>235,182</b>	<b>22,710,352</b>

(a) Includes Other territories.

(b) Includes *Migratory* areas.

Source: ABS 2013b.

# Glossary

**Aboriginal:** A person of Aboriginal descent who identifies as an Aboriginal and is accepted as such by the community in which he or she lives.

**Australian Standard Geographical Classification (ASGC):** Common framework defined by the Australian Bureau of Statistics for collection and dissemination of geographically classified statistics. The ASGC was implemented in 1984 and the final release was in 2011. It has been replaced by the Australian Statistical Geography Standard (ASGS).

**Australian Statistical Geography Standard (ASGS):** Common framework defined by the Australian Bureau of Statistics for collection and dissemination of geographically classified statistics. The ASGS replaced the Australian Standard Geographical Classification (ASGC) in July 2011.

**benchmark data:** For the Dental Workforce Survey 2012, responses were weighted to the number of registered dental practitioners in each state and territory, by broad registration type, by type of dental practitioner, by whether registered or not, by sex and age group to take account of survey questionnaire non-response. These numbers are referred to as 'benchmarks' throughout this report, and may not be equivalent to that reported by the Australian Health Practitioner Regulation Agency due to scope and reporting time differences.

**clinical area of dental/oral health activity:** The area where dental practitioners were working the most hours in the week before the survey. The available categories comprise:

- dental hygiene
- dental therapy
- dental prosthetic
- oral health therapy
- orthodontics
- paedodontics (paediatric dentistry)
- periodontics
- prosthodontics
- public health dentistry
- special needs dentistry
- general dental practice
- dento-maxillofacial radiology
- endodontics
- oral and maxillofacial surgery
- oral surgery
- oral medicine
- oral pathology
- forensic odontology
- other.

The 2012 Dental Workforce Survey included 5 new categories to that available in the 2011 survey. The additional categories are dental hygiene, dental therapy, dental prosthetic, oral health therapy and forensic odontology.

**clinical hours:** The total number of clinical hours is self-reported by dental practitioners and relates to the number of hours worked in the area of clinical practice in the week before the survey.

**clinician:** A dental practitioner who spends the majority of their time working in the area of clinical practice; that is, the diagnosis, care and treatment and including recommended preventive action, of patients or clients.

**dental specialties:** There are 13 specialties recognised for registration as a dental specialist in Australia (DBA 2013c). The recognised specialties are:

- dental-maxillofacial radiology
- endodontics
- oral and maxillofacial surgery
- oral medicine
- oral pathology
- oral surgery
- orthodontics
- paediatric dentistry
- periodontics
- prosthodontics
- public health dentistry (community dentistry)
- special needs dentistry
- forensic odontology.

See Appendix B for descriptions of the dental specialties.

**dental workforce:** In this report, the dental workforce comprise 5 types of practitioners. They are:

- dentists
- dental hygienists
- dental prosthetists
- dental therapists
- oral health therapists.

**employed:** An employed dental practitioner is one who either:

- worked for a total of 1 hour or more in the week before the survey in a job or business for pay, commission, payment in kind or profit, mainly or only in a particular state or territory
- usually worked, but was away on leave (with some pay) for less than 3 months, on strike or locked out, or rostered off.



**full-time equivalent (FTE) number:** FTE number measures the number of standard-hour workloads worked by employed dental practitioners. This provides a useful measure of supply because it takes into account both the number of dental practitioners who are working and the hours that they work.

FTE number is calculated by: the total number of weekly hours worked by employed dental practitioners in a particular category divided by the standard working week hours. In this report, 38 hours is assumed to be a standard working week and equivalent to 1 FTE.

**full-time equivalent (FTE) rate:** The FTE rate (number of FTE dental practitioners per 100,000 population) is a measure of supply. By defining supply in terms of the FTE rate, meaningful comparisons of supply can be made across geographic areas and over time. FTE rate is calculated as: the number of FTE dental practitioners divided by the relevant population estimate multiplied by 100,000.

**hours worked:** The total number of weekly hours worked is self-reported by dental practitioners and relates to the number of hours worked in dentistry/oral health jobs in the week before the survey. In editing survey responses, maximum hours worked that were accepted were 125 hours per week. Reported hours of greater than 125 are considered unreliable and therefore not included in the analysis of total hours worked by dental practitioners.

In this report, the ABS definition has been used for the cut-off for full-time and part-time work:

- full-time work: 35 hours or more per week
- part-time work: less than 35 hours per week.

For data before 2011, average weekly hours are calculated only where hours are greater than zero. That is, employed respondents with 'Not stated' hours worked are excluded from the calculation.

For 2011 and 2012 data, average weekly hours worked was imputed where missing or invalid.

**Indigenous:** A person of Aboriginal and/or Torres Strait Islander descent who identifies as an Aboriginal and/or Torres Strait Islander and is accepted as such by the community in which he or she lives.

**limited registration:** A dental practitioner who is not qualified for general registration with the Dental Board of Australia may be eligible to apply for limited registration.

Dental practitioners with limited registration must be supervised by practitioners with general registration. Many overseas-trained dental practitioners apply for limited registration so they may practise while undergoing further training to achieve general registration in Australia (AHPRA 2013a).

**principal role:** Unless otherwise stated in this report, the role of the dental practitioner refers to the main role (that is, the core role with the most number of hours worked in the week before the survey) in the dental practitioner's main job (that is, the job with the most number of hours worked in the week before the survey). Core roles are divided into 2 main groups, with several categories in each group, as follows:

- *Clinical role:* Before 2011: for dentists this included general practice, registered specialist restricted practice. For 2011 and 2012: clinician.

- *Non-clinical role*: this comprises:
  - administrator
  - teacher/educator
  - researcher
  - other.

**remoteness area:** The remoteness area structure within the Australian Statistical Geography Standard (ASGS), produced by the Australian Bureau of Statistics, has been used in this report to present regional data for dental practitioners.

The remoteness area structure of the ASGS is based on the Accessibility/Remoteness Index of Australia, where the remoteness index value of a point is based on the physical road distance to the nearest town or service in each of 6 population size classes based on the 2011 Census of Population and Housing. These classes are:

- *Major cities*
- *Inner regional*
- *Outer regional*
- *Remote*
- *Very remote*
- *Migratory*.

Due to the small numbers in the *Migratory* class, they have been combined and reported as *Very remote* in this report.

**Torres Strait Islander:** A person of Torres Strait Islander descent who identifies as a Torres Strait Islander and is accepted as such by the community in which he or she lives.

# References

- ABS (Australian Bureau of Statistics) 2013a. 1270.0.55.005 – Australian Statistical Geography Standard (ASGS): Volume 5–Remoteness Structure, July 2011 (released on 31 January 2013). Canberra: ABS. Viewed 8 October 2013, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1270.0.55.005July%202011?OpenDocument>>.
- ABS 2013b. 3218.0–Regional Population Growth, Australia, 2012 (released on 30 August 2013) – Data Cubes–Population Estimates by Remoteness Area [ASGS 2011], 2001 to 2012. Canberra: ABS. Viewed 8 October 2013, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3218.02012?OpenDocument>>.
- AHPRA (Australian Health Practitioner Regulation Agency) 2013a. Annual report of the Australian Health Practitioner Regulation Agency and the National Boards reporting on the National Registration and Accreditation Scheme, 2012–13. Melbourne: AHPRA. Viewed 6 December 2013, <<http://www.ahpra.gov.au/Legislation-and-Publications/AHPRA-Publications.aspx#annual>>.
- AHPRA 2013b. Dental Board of Australia – Statistics – Registration data table–December 2012. Melbourne: AHPRA. Viewed 10 September 2013, <<http://www.dentalboard.gov.au/About-the-Board/Statistics.aspx>>.
- AIHW (Australian Institute of Health and Welfare) 2013. Dental workforce 2011. National health workforce series no. 4. Cat. no. HWL 50. Canberra: AIHW.
- DBA (Dental Board of Australia) 2013a. Correspondence with the Health Workforce Australia in relation to the definitions of dental practitioner division, reference–DentalBoard2013/181, 11 September 2013.
- DBA 2013b. Dental Board of Australia – About the Board. Melbourne: DBA. Viewed 6 December 2013, <<http://www.dentalboard.gov.au/About-the-Board.aspx>>.
- DBA 2013c. Dental Board of Australia – Registration. Melbourne: DBA. Viewed 6 December 2013, <<http://www.dentalboard.gov.au/Registration.aspx>>.
- DoE (Department of Education) 2013. Department of Education Higher Education Statistics Data Cube (uCube) – student data collection. Viewed 9 December 2013, <<http://www.highereducationstatistics.deewr.gov.au/Default.aspx>>.
- HWA (Health Workforce Australia) 2013. Correspondence with the Australian Institute of Health and Welfare in relation to defining primary dental division of general registration, 20 May 2013.
- NCVER (National Centre for Vocational Education Research) 2013. National Centre for Vocational Education Research – VET students by industry. Viewed 2 October 2013, <<http://www.ncver.edu.au/resources/vsi.html#Field of Education>>.

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## Related publications

This report is part of the National health workforce series. Reports can be downloaded for free from the AIHW website <<http://www.aihw.gov.au/workforce-publications/>>.

The following AIHW publications relating to health workforces might also be of interest:

- AIHW 2013. Nursing and midwifery workforce 2012. National health workforce series no. 6. Cat. no. HWL 52. Canberra: AIHW.
- AIHW 2013. Allied health workforce 2012. National health workforce series no. 5. Cat. no. HWL 51. Canberra: AIHW.
- AIHW 2013. Dental workforce 2011. National health workforce series no. 4. Cat. no. HWL 50. Canberra: AIHW.
- AIHW 2013. Medical workforce 2011. National health workforce series no. 3. Cat. no. HWL 49. Canberra: AIHW.
- AIHW 2012. Nursing and midwifery workforce 2011. National health workforce series no. 2. Cat. no. HWL 48. Canberra: AIHW.
- AIHW 2012. Medical workforce 2010. National health workforce series no. 1. Cat. no. HWL 47. Canberra: AIHW.

The number of dental practitioners registered in Australia in 2012 was 19,462, of whom 14,687 (75.5%) were dentists. The supply of employed dentists increased slightly from 55.4 to 56.9 full-time equivalent practitioners per 100,000 population between 2011 and 2012, which reflected a 5.3% increase in dentists.

The gender balance continued to shift, with women making up 36.5% of dentists in 2012 compared with 35.2% in 2011. The average hours worked each week by dentists decreased slightly from 37.3 to 37.0; and those working part time increased from 30.8% to 31.7%.

