

## 3 Supply of dental visits

This section estimates the supply of dental visits by the dental labour force, which comprises four key occupational groups that provide clinical services. In terms of numbers dentists dominate the dental labour force. Allied dental practitioners, which include prosthetists, dental therapists and dental hygienists, comprise approximately 22% of the dental labour force.

First, the primary characteristics and most recent estimates of numbers of practitioners practising in each of these occupational groups are presented. Second, the capacity of each of these groups to supply visits is estimated. Third, previous projections are briefly reviewed and the components that comprise the projection model are examined and refined. Finally, revised projections are presented, both of the number of practitioners and of visits supplied by the total dental labour force to the year 2020.

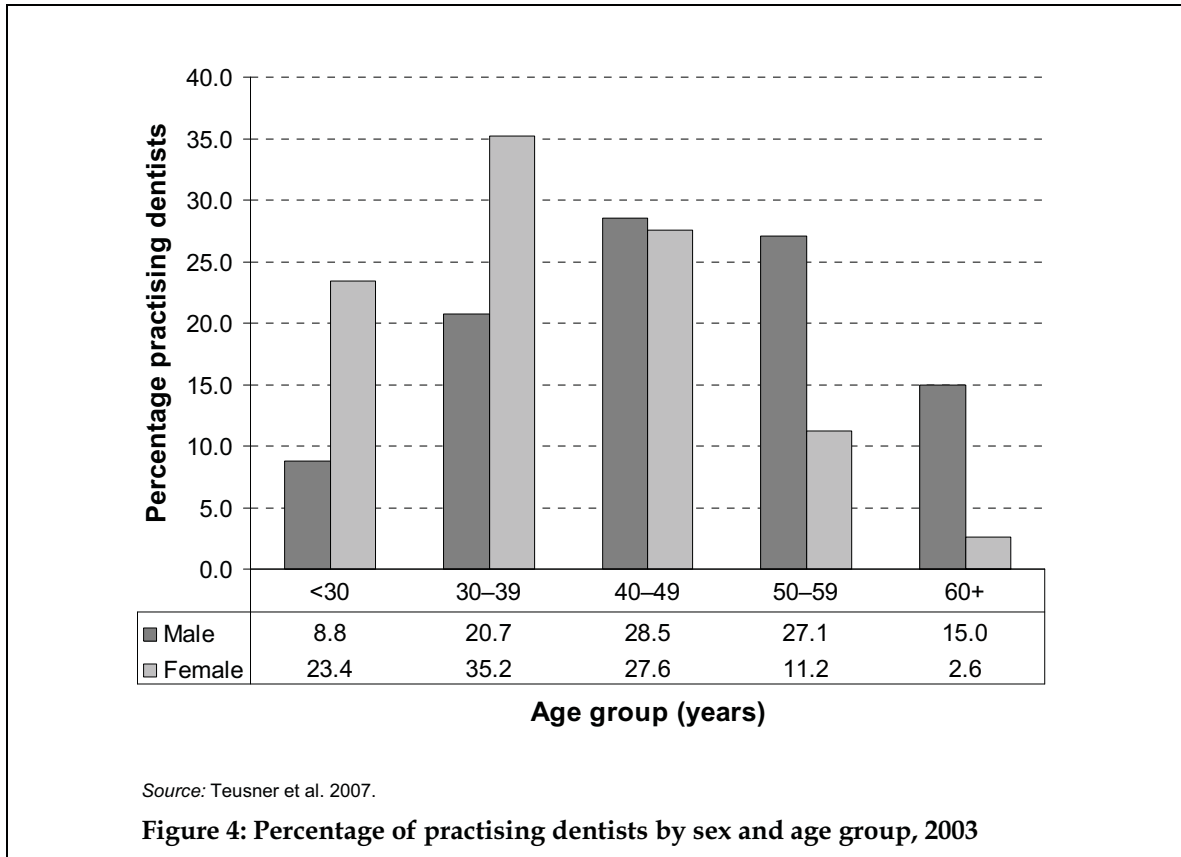
### 3.1 Dentist labour force

In 2003 there were 11,404 dentists registered with a state/territory Dental Board in Australia, of whom 482 were multiple registrations (registered in more than one jurisdiction), leaving a potential stock of 10,922 dentists. Of these, 9,678 (88.6%) were actively practising in dentistry, giving a practising rate of 48.7 dentists per 100,000 population (Table A.1).

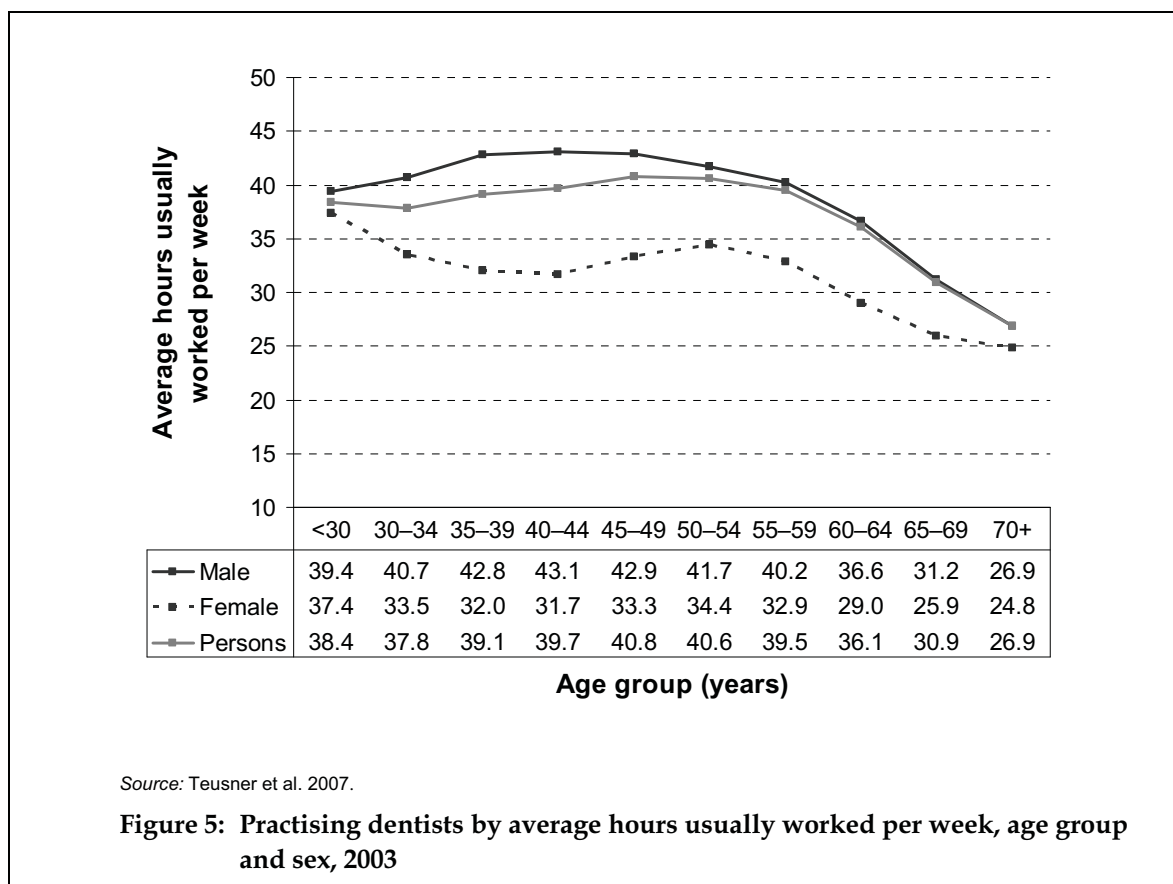
In 2003 the percentage of employed dentists (practising) was 84.9% of all registrations. As expected the employment rate declines with increasing age, dropping from 88.1% for the under 35 years age group to 68.7% in the over 65 years age group. There were minor differences between males and females in terms of employment rate. The exception was the 55–64 years age group, where only 75.1 % of female registrants were employed compared with 84.9% for male registrants (Table A.1).

## Demographics

In 2003 nearly three-quarters (73.7%) of all practising dentists were male with an average age of 46.9 years. Female dentists were on average much younger than their male colleagues, with an average age of 38.1 years (Table A.2). Just over half (58.6%) of all female dentists were aged less than 40 years of age compared to less than one-third (29.5%) of male dentists. In contrast, approximately 42% of male dentists were aged over 50 years compared to 13.8% for females (Figure 4).



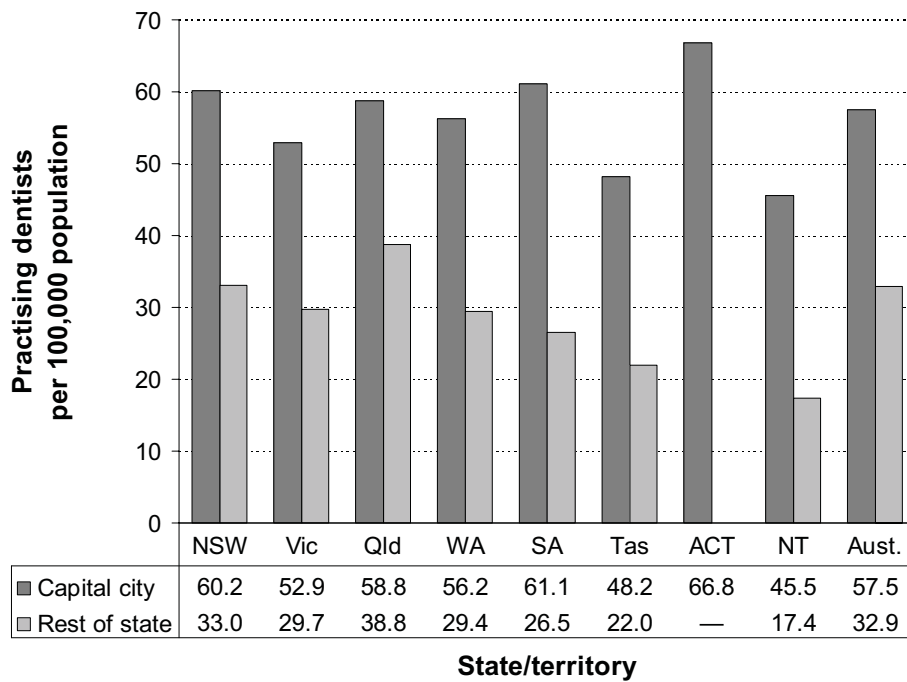
Total average hours worked per week varied by age and sex. Female dentists on average worked fewer hours than their male counterparts in all age groups. Of female dentists, those less than 30 years of age worked the longest week (37.4 hours) whereas male dentists in the 40 to 44 years age group worked the longest week (43.1 hours) (Figure 5).



Most dentists (84.7%) worked in general practice, 11.7% worked in specialist practice and the remainder worked in non-clinical areas such as administration and research/education (Table A.3). The majority (81.6%) of practising dentists worked in the private sector, 15.5% worked in the public sector and the remaining dentists worked in industry or other sectors.

## Geographic distribution

In 2003 the overall practising rate of dentists was 48.7 dentists per 100,000 population. Practising rates across jurisdictions varied widely, ranging from 32.7 in the Northern Territory to 66.8 dentists per 100,000 population in the Australian Capital Territory (Table A.2). Furthermore, within jurisdictions the distribution of dentists was uneven relative to the population. Capital cities averaged 57.5 dentists per 100,000 population while other regions (rest of state) averaged 32.9 dentists (Figure 6).



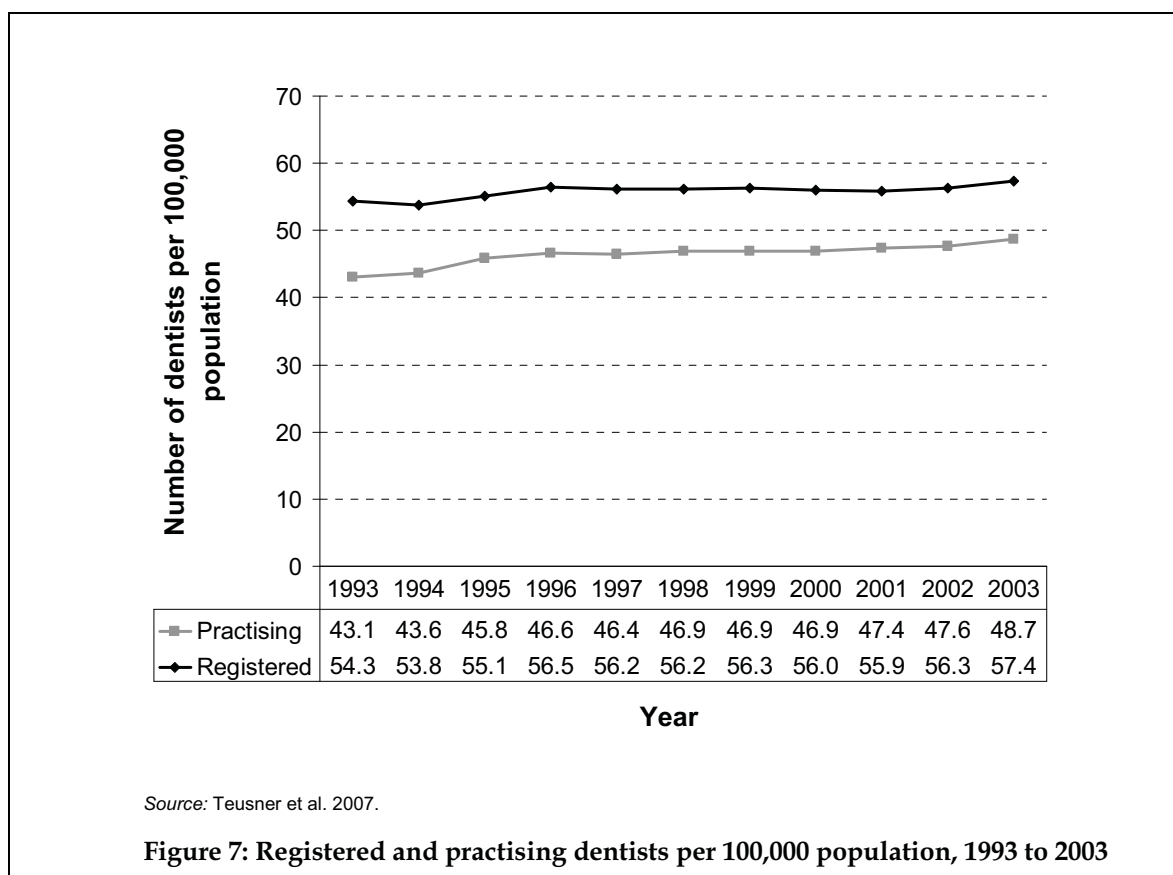
Source: Teusner et al. 2007.

**Figure 6: Employed dentists per 100,000 population by state and region, 2003**

## Previous growth in dentist labour force

Over the decade to 2003 the total number of dentist registrations increased from 9,592 in 1993 to 11,404 in 2003, an overall increase of 18.9%. Allowing for multiple registrations and those not employed in the labour force, the estimated number of employed practising dentists increased from 7,618 in 1993 to 9,678 in 2003, an overall increase of 27.0% over the 10-year period.

The number of dentists per 100,000 population provides a more relevant estimate of change in the supply of dentists because increases in the population are taken into account. The number of dentist registrations increased from 54.3 to 57.4 dentists per 100,000 population between 1993 and 2003, a 5.7% increase. Numbers of employed dentists increased from 43.1 in 1993 to 48.7 dentists per 100,000 population in 2003, an increase of 12.9% (Figure 7).



## Dentists' capacity to supply dental visits

The capacity to supply dental visits is estimated by multiplying the sex-and age-specific average number of visits supplied per annum by the number of employed dentists working principally in clinical practice (96.4% of all employed dentists). Estimates of average number of dental visits supplied per annum are sourced from the Longitudinal Study of Dentists' Practice Activity 2003-04 (LSDPA) and are calculated by multiplying the number of hours worked per year by the average number of visits supplied per hour.

The average number of dental visits supplied by dentists vary by age and sex. In 2003-04 male dentists on average supplied 2,898 visits per year while female dentists supplied substantially fewer (2,307) visits per year. For males, dentists in the 50 to 59 years age group provided the highest number of visits (3,454 visits per year) while those aged over 60 years provided the least (1,861 visits per year). For females, those aged less than 30 years and over 60 years provided the highest number of visits (2,537 and 2,520 visits per year, respectively) while those in the 50 to 59 year age group supplied the least (2,082) visits per year (Table 1).

For the past 40 years the average length of a dental visit has been increasing, as has the number of services provided per visit, while the average hours worked per week has remained stable (Spencer & Lewis 1986). Consequently the number of visits supplied per year has been steadily declining over that period (Table 1). The trend towards declining productivity (in terms of dental visits supplied) was evident across all age groups with the exception of females aged over 60 years where the number of visits fluctuated during the 20-year period (primarily due to small numbers of respondents in this age group).

**Table 1: Average number of dentist visits supplied per year by sex and age, 1983–84 to 2003–04**

Age group (years)	1983–84	1988–89	1993–94	1998–99	2003–04	Per cent change 1983–84 to 2003–04
<b>Male</b>						
20–29	3,195	2,828	2,959	2,248	2,601	–18.6
30–39	3,964	3,707	3,081	2,883	2,780	–29.9
40–49	3,897	3,753	3,723	3,396	3,081	–20.9
50–59	3,614	3,972	3,083	3,083	3,454	–4.4
60+	3,003	2,744	2,413	2,339	1,861	–38.0
<b>Female</b>						
20–29	2,611	2,638	2,724	2,393	2,537	–2.8
30–39	2,530	2,303	2,413	2,163	2,158	–14.7
40–49	2,876	2,444	2,691	2,085	2,377	–17.4
50–59	2,704	2,036	3,091	2,367	2,082	–23.0
60+	2,000	2,427	2,160	n.a.	2,520	26.0

Sources: LSDPA, General and specialist dentists; D Brennan and AJ Spencer, unpublished data.

## 3.2 Allied dental labour force

In 2003 there were 2,687 employed practitioners in the allied dental labour force, comprising 1,242 dental therapists, 878 dental prosthetists and 577 dental hygienists. Dental prosthetists tended to be older, with an average age of 48.7 years and approximately 83% aged over 40 years. In contrast, dental hygienists were the youngest group, aged 36.5 years on average with approximately 37% aged over 40 years (Table 2).

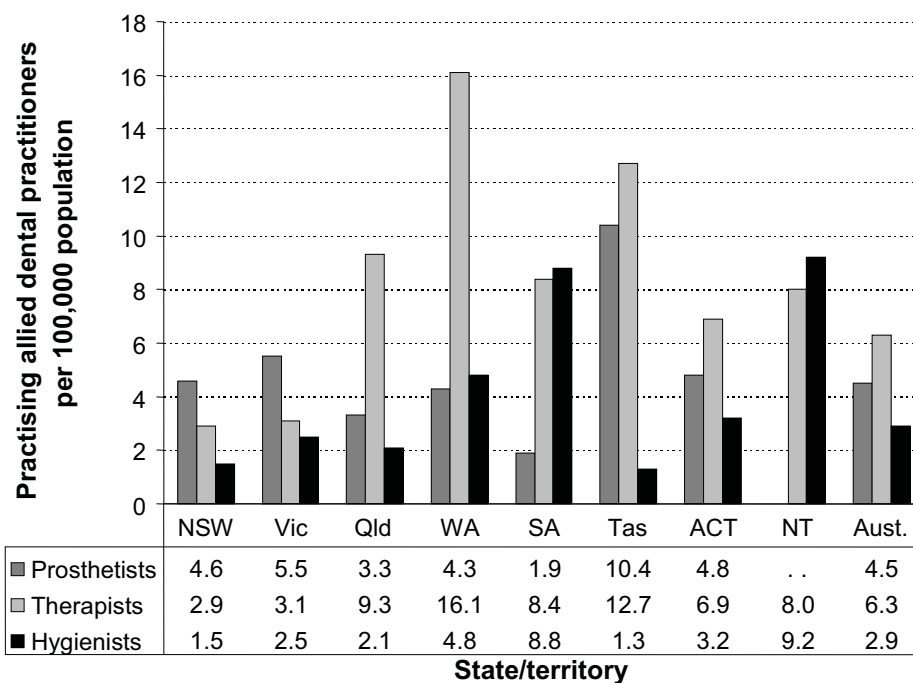
Dental prosthetists were predominantly male (90.8%), worked on average the longest working week (43.0 hours per week) and had the lowest rate of part-time workers (19.8%). Both dental hygienists and dental therapists were predominantly female and on average worked a similar working week (29.4 hrs and 29.5 hrs per week, respectively). The defining features between these two groups were that therapists worked predominantly in the public sector and were on average older than hygienists (40.3 years and 36.5 years, respectively) (Table 2).

**Table 2: Allied dental labour force: selected characteristics, Australia, 2003**

	Dental prosthetists	Dental therapists	Dental hygienists
Estimated number practising	878	1,242	577
Practising rate per 100,000 population	4.5	6.3	2.9
– capital cities	4.5	5.6	3.8
– rest of state	4.5	7.5	1.2
Percentage female	9.2	98.6	97.1
Average age	48.7	40.3	36.5
Percentage aged 40 years and over	82.4	62.7	36.5
Average hours usually worked per week	43.0	29.4	29.5
Percentage working part-time (<35 hrs per week)	19.8	56.3	63.3
Percentage working in the public sector	6.4	87.0	7.4

Sources: Tables A.5, A.6, A.7; Teusner et al. 2007.

Allied dental practising rates per 100,000 population varied greatly across jurisdictions. This variation can be accounted for by numerous factors including differences in scope of practice, availability of education and training, and differences in state and territory dental health policy (Figure 8).



Sources: Tables A.5, A.6, A.7; Teusner et al. 2007.

**Figure 8: Practising allied dental practitioners per 100,000 population by state and territory, 2003**



There have been only marginal changes in the numbers of practicing dental prosthetists and dental therapists in recent years. For dental prosthetists, the numbers have remained stable since 2000, with the number practising per 100,000 population decreasing marginally from 4.6 prosthetists in 2000 to 4.5 in 2003. For dental therapists, the numbers employed have declined by 5.7% since 2000, with a corresponding decline in the numbers practising per 100,000, from 6.9 therapists in 2000 to 6.3 in 2003. In contrast, the dental hygienist labour force has increased since 2000, with numbers employed increasing by 38.7% and the number practising per 100,000 population increasing from 2.2 hygienists in 2000 to 2.9 in 2003.

## Allied dental practitioners' capacity to supply dental visits

As there is no practice activity data available for estimation of the number of dental visits supplied by allied dental practitioners, capacity to supply is calculated by adjusting estimates derived from the dental labour force data collection and dentists' practice activity data (LSDPA). The data used and estimates of annual supply rates for allied dental practitioners are shown in Table 3. Total allied dental supply is calculated by multiplying the number of practising practitioners by the percentage working in clinical practice and the estimated annual supply.

**Table 3: Estimated number of dental visits supplied per annum per allied dental practitioner**

	Dental therapists	Dental hygienists	Dental prosthetists
Hours per week <sup>(a)</sup>	29.40	29.50	43.00
Weeks per year <sup>(b)</sup>	43.26	43.26	44.60
Hours per year <sup>(c)</sup>	1,271.84	1,276.17	1,917.80
Patient visits per hour <sup>(d)</sup>	1.71	1.71	1.73
Patient visits per year <sup>(e)</sup>	2,174.85	2,182.25	3,317.79
Percentage in clinical practice <sup>(f)</sup>	96.2	96.8	41.5
Estimated number of employed practitioners, 2003 <sup>(a)</sup>	1,242	577	878
Estimated supply of dental visits, 2003 (millions) <sup>(g)</sup>	2.60	1.22	1.21

(a) 2003 dental labour force data collection.

(b) 1998–99 LSDPA data, female dentists worked 43.26 weeks per year and male dentists worked 44.60.

(c) [Hours per week] x [weeks per year].

(d) 2003–04 LSDPA data, female dentists provided 1.71 visits per hour and male dentists provided 1.73.

(e) [Hours per year] x [patient visits per hour].

(f) 2003 dental labour force data collection.

(g) [Patient visits per year] x [percentage in clinical practice] x [no. employed].

The contribution of the allied dental labour force to total labour force supply was adjusted in order that their contribution to aggregate supply reflected the proportion of dental visits that they supplied independently of a visit to the dentist. This allowed reconciliation of aggregate supply estimates with demand estimates, as demand side data records a simultaneous visit to a dentist and a hygienist, or a therapist and a dentist, as one dental visit. For estimation of therapy visits supplied, total supply by therapists was reduced by 50% of the estimated supply by school dental service dentists. For hygienists, it was anecdotally reported that 1 in 5 patients visited a hygienist without receiving a consult from the dentist; hence, 20% of their total supply was counted towards aggregated supply. There was no discount applied to clinical visits supplied by prosthetists.

### 3.3 Review of previous dental labour force projections, 2000 to 2010

Dental labour force projections were previously published by ARCPOH (Teusner & Spencer 2003). These projections were calculated using 2000 dental labour force survey estimates as the baseline and a recruitment vector totalling 489 dentists at baseline. Components of the recruitment vector comprised Australian university graduates (217), migration (67), return from abroad (71) and return to practice after cessation of practice (205).

This projection estimated that by 2010 the total number of dental practitioners would increase to 12,749 (including allied dental practitioners) with an estimated capacity to supply 29.4 million visits (Table 4). When reconciled against the demand projections published at that time, it was concluded that capacity to supply would fail to meet potential demand for dental visits by an estimated 3.8 million visits (Teusner & Spencer 2003).

**Table 4: Previous baseline and projected number of practitioners and visits, 2000 and 2010**

	Number of practitioners		Number of visits (million)	
	2000	2010 <sup>(a)</sup>	2000	2010 <sup>(a)</sup>
Dentists	8,991	10,241	24.10	25.05
Dental therapists	1,260	1,196	2.36	2.24
Dental hygienists	398	522	0.85	1.10
Dental prosthetists	836	790	1.11	1.05
<b>Total</b>	<b>11,485</b>	<b>12,749</b>	<b>28.42</b>	<b>29.43</b>

(a) Medium supply projection, based on assumption that dentist productivity will continue to decline at 50% the rate of decline observed in the period 1983–84 to 1998–99.

Source: Teusner & Spencer 2003.

## Dentists

The projected number of dentists compared with the actual estimates for 2003 are shown in Table 5. The previously published projection predicted a 5.0% increase in numbers of dentists, with male dentists projected to increase by 2.7% and females to increase by 12.9%. When compared to estimates from the 2003 Dental Labour Force Survey (Teusner et al. 2007), it was evident that the previous projections underestimated the growth in dentist numbers by almost 3 percentage points.

**Table 5: Baseline data for the dentist labour force in 2000 and comparison of previous projections with actual practising dentists by sex, 2003**

	2000 baseline data	2003 projection <sup>(a)</sup>	2003 actual <sup>(b)</sup>	Projected per cent change	Actual per cent change
Males	6,932	7,120	7,132	2.7	2.9
Females	2,059	2,325	2,546	12.9	23.7
<b>Persons</b>	<b>8,991</b>	<b>9,445</b>	<b>9,678</b>	<b>5.0</b>	<b>7.6</b>

Sources: (a) Teusner & Spencer 2003; (b) Teusner et al. 2007.

To understand the difference between the projected number and the actual number of dentists in 2003, all components and inputs of the model were examined.

A summary of the components of the recruitment vector for the original projection (Teusner & Spencer 2003) and actual numbers of those components (averaged for the years 2000 to 2003) are provided in Table 6.

An increase in number of recruits was observed across all components during the period 2000 to 2003, with recruitment on average totalling 613 dentists per annum, 25% more than the recruitment vector applied in the previous projection. The most notable change was the increase in the number of dentists returning from an extended stay abroad. Previous projections were based on an estimated 71 entrants per year whereas during 2000 to 2003, this figure had increased to an average of 110 per year.

In addition to greater numbers of entrants there was also a difference in the proportion of female to male graduates. Between 2000 and 2003 females represented 50% of all students completing a Bachelor of Dentistry, whereas the original projection assumed a continuation of the trend observed in the late 1990s, when female graduates comprised 40% of all graduates. A similar scenario occurred with overseas dentists migrating to Australia from countries where a recognition of qualifications policy exists (United Kingdom, Ireland and New Zealand); and in successful ADC candidates between 2000 and 2003 females were in the majority.

**Table 6: Expected and observed estimates for recruitment vectors**

	Recruitment vector (2000 baseline)			Average recruitment (2000–03)		
	Males	Females	Persons	Males	Females	Persons
Australian graduates	131	86	217	117	120	237
Migration	19	12	31	39	25	64
ADC	20	16	36	17	30	47
Return from abroad	44	27	71	68	42	110
Return to practice	86	48	134	85	70	155
<b>Total recruitment</b>	<b>300</b>	<b>189</b>	<b>489</b>	<b>326</b>	<b>288</b>	<b>613</b>

Comprehensive examination of the actual attrition rates was not possible as many state/territory datasets can not be linked from year to year. However, there appeared to be no evidence that the pattern or rate of attrition had altered from the rates used in the previous model.

In addition to the underestimation of total recruitment, the difference between the projected number of dentists and the observed number can also be partly accounted for by an underestimation of the Queensland dental labour force in 2000. Revised estimates indicated that the previous baseline was underestimated by approximately 80 dentists.

To cross-validate with the model previously used (Teusner & Spencer 2003), the updated recruitment vector for 2000 to 2003 was entered into the original projection model. The revised recruitment estimates accounted for the difference between the projected number of dentists and the actual number as presented in Table 5, thus providing a validation of the appropriateness of the attrition rates employed in the original model.

## Allied dental practitioners

Previously published projections of allied dental practitioners appear to be in line with 2003 actual numbers with the exception of dental hygienists. Growth in the number of dental hygienists exceeded previous projections; actual recruitment levels were higher than previously estimated due of the establishment of new training courses.

**Table 7: Baseline data for the allied dental labour force in 2000 and comparison of previous projections with actual employed allied dental practitioners, 2003**

	2000 baseline data <sup>(a)</sup>	2003 projection	2003 actual	Projected per cent change	Actual per cent change
Dental therapists	1,260	1,248	1,242	-1.0	-1.4
Dental hygienists	405	450	578	11.1	42.7
Dental prosthetists	836	819	879	-2.0	5.1
<b>Total</b>	<b>2,501</b>	<b>2,517</b>	<b>2,699</b>	<b>0.6</b>	<b>7.9</b>

(a) Source: Teusner & Spencer 2003.

## 3.4 Refinement of supply projections

This section provides a summary of the revisions applied to the supply projection model. Greater detail of all assumptions and inputs is provided in Appendix B.

### Dentists

#### Recruitment vector

A summary of the revised estimates that comprise the recruitment vector is provided in Table 8. Total recruitment per annum is estimated to be 642 dentists which is 31% more than the annual recruitment estimates applied in the previous model.

The estimates for migration and return from abroad were derived from the average arrival numbers from 2000 to 2006 Department of Immigration and Multicultural Affairs (DIMIA, analysed by the ABS) multiplied by the dental labour force employment rate for 2003 (84.9%). For the years 2003 to 2006 the actual numbers of successful ADC candidates were known and these were included in the recruitment vector, but for subsequent years a figure of 100 was assumed for ADC recruitment. This arbitrary number reflects the substantially higher number of candidates passing ADC exams in recent years but does not assume that these high (158 candidates in 2006) levels will continue. The Australian university graduate component for the first 5 years of the projection was based on the average number of completions between 2000 and 2004. From 2009 an additional 70 graduates were included to account for the first year of graduates from Griffith University (approximately 50 students commenced in 2004) and some incremental increase in the graduate numbers from the 5 dental schools established prior to 2004.

International graduates are not included as a component in the recruitment vector despite the fact that it is anecdotally known that many gain residency to live and practice in Australia post-graduation. They are excluded for two reasons. Firstly, the number of graduates falling into this category is unknown and secondly, it is believed that many would be included in the 'return from abroad' component of the recruitment vector.

In addition to updating recruitment figures, the return to practice (RTP) component (the percentage returning after cessation of practice for a period of 12 months or more) was recalculated using more recent data. Estimated RTP numbers alter each year as they are calculated by multiplying the RTP% by the number of dentists practising in the previous year of the projection (see Appendix B).

**Table 8: Revised recruitment vector for dentist projections by sex**

	<b>Males</b>	<b>Females</b>	<b>Persons</b>
Australian graduates (237 in 2003 to 2008, 307 in 2009 to 2020)	117	120	237
Automatic recognition (UK/NZ/Eire citizens)	29	28	57
ADC	50	50	100
Return from abroad	57	36	93
Return to practice (2003)	85	70	155
<b>Total recruitment per annum</b>	<b>338</b>	<b>304</b>	<b>642</b>

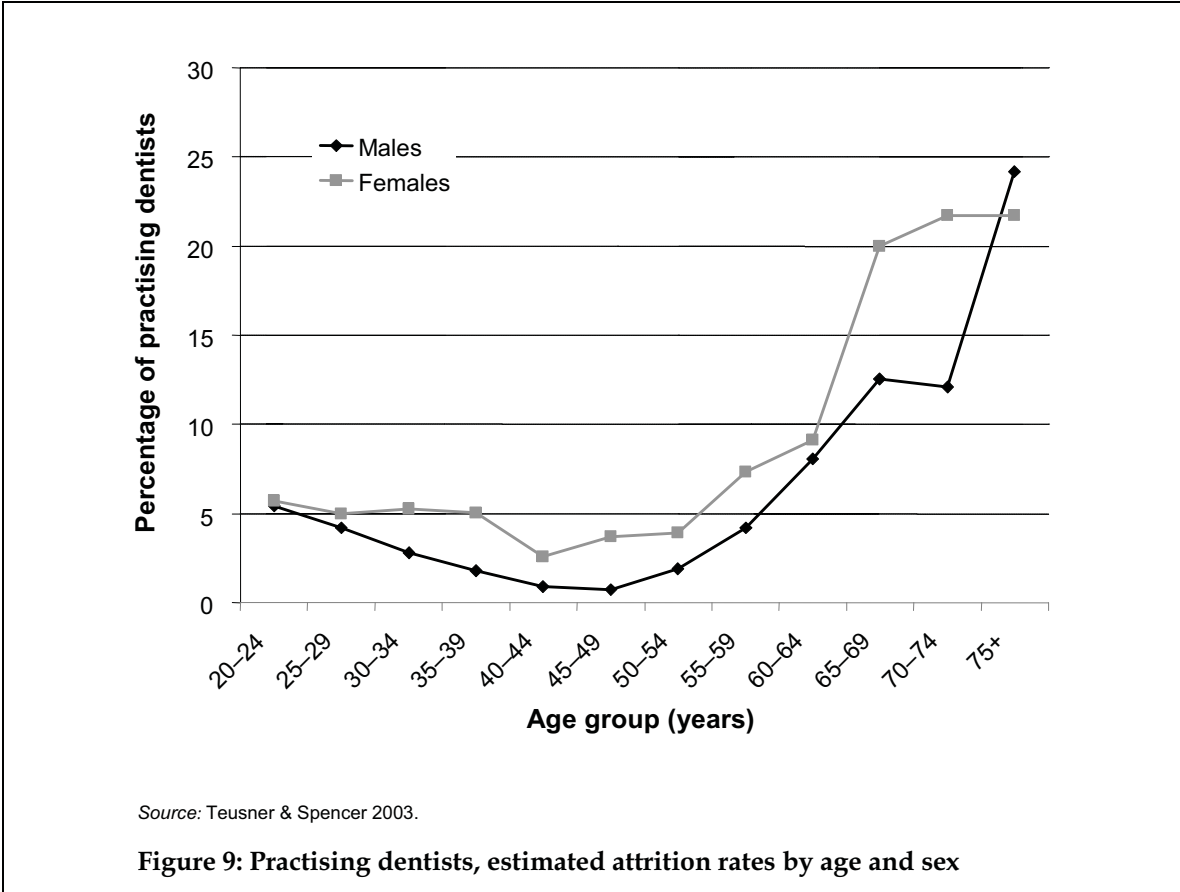
*Notes*

1. RTP estimates are a function of the number of dentists practising per year (see Appendix B). RTP numbers in this table are for 2003 and would increase through the course of the projection.
2. Automatic recognition and return from abroad (expatriate) components are estimated by averaging arrivals data over the period 2000 to 2006 and multiplying by the 2003 employment rate (84.9%).
3. For 2003 to 2006, the ADC component of the recruitment vector used the actual numbers of ADC candidates in those years.

**Wastage vector**

Attrition (wastage) rates were estimated for each sex and 5-year age group and used to develop a matrix of transitional probabilities. This matrix represents the probability that in the next year of the projection a dentist will stay in the same age group, move into the next age group or exit the stock of dentists. Female attrition rates were higher than those for males. For male dentists less than 30 years of age, attrition rates average approximately 5%. Rates continue to decline until age 45 to 49 years and then steadily increase as male dentists move towards retirement. For female dentists, attrition rates remain around 5% until 40 years of age, decline slightly and then increase in the 50 to 54 years age group and older (Figure 9).

Although the revised projections use the same wastage rates as previous projections (Teusner & Spencer 2003), the matrix of transitional probabilities has been recalculated using slightly adjusted assumptions relating to the movement between age groups (see Appendix B for more detail).



For the first year of the revised supply projection (2003), overall attrition rate is 4.8% of employed female dentists. This rate increases marginally to 5.2% by 2017 and then remains stable to 2020. For male dentists, the attrition rate is 3.6% at baseline, increases to 4.3% in 2014 and then remains stable to 2020.

**Allied dental practitioners**

**Recruitment vector**

A revised recruitment vector was developed for dental therapists and dental hygienists based on updated information on actual enrolments in courses (Table 9). Most training courses produce dual-qualified graduates but it is uncertain what proportion will practise in dental hygiene versus dental therapy. Hence an arbitrary assumption was made that 50% of graduates from dual-qualified courses would practise as hygienists and 50% as therapists. An RTP component was included in the recruitment vector for hygienists and therapists.

**Table 9: Revised recruitment vector for allied dental practitioners (baseline 2003)**

	Dental hygiene	Dental therapy	Dental prosthetics
Australian graduates	164	74	30
Return to practice (baseline)	8	16	–
Total recruitment per annum	172	90	30

Note: RTP estimates are a function of the number of practitioners practising per year (see Appendix B). RTP numbers in this table are for 2003 and would increase through the course of the projection. For hygienists and therapists the RTP rate was set at 50% of the rate for female dentists (2.6%).

### Wastage vector

Although the revised projections use the same attrition rates as the original projections, the matrix of transitional probabilities has been recalculated using standardised assumptions of the movement between age groups (see Appendix B for more detail).

The dental hygiene and dental therapy projections used the same attrition rates that were applied to female dentists but with a 50% loading. The dental prosthetist projection used the same attrition rates that were applied to male dentists.

## 3.4 Revised supply projections, 2003 to 2020

The number of practitioners in each occupational group was projected to the year 2020. Between 2005 and 2020 the number of dentists is projected to increase by 33.3%, from an estimated 10,104 dentists in 2005 to 13,465 in 2020. The projected increases vary across the allied dental groups from a 137.8% increase for dental hygienists to a 5.3% decrease for dental therapists and an 8.7% decrease for dental prosthetists (Table 10). The decreases in these two occupational groups are related to the predicted increase in the number of practitioners retiring or ceasing practice over the next decade.

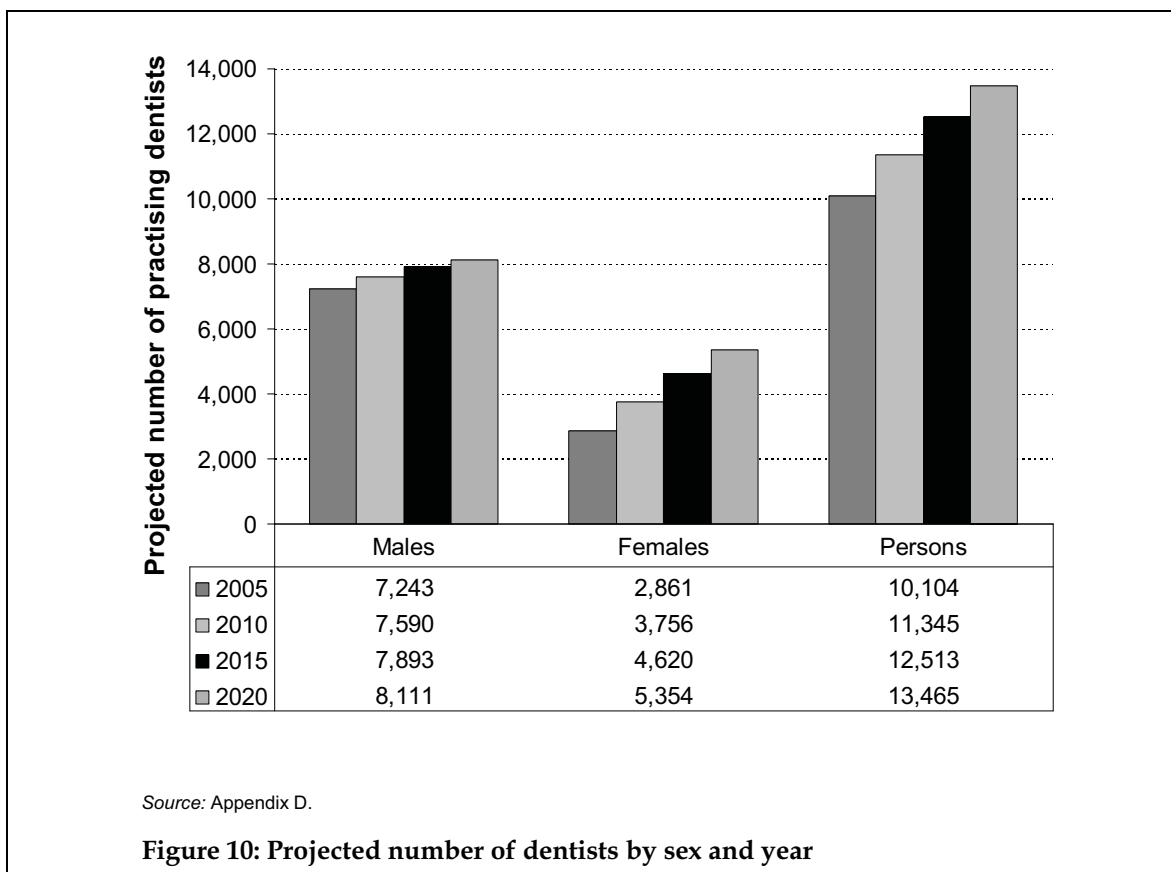
**Table 10: Projected number of practitioners by occupational group, 2005, 2010, 2015 and 2020**

Occupational group	Projected number of employed practitioners				Per cent increase 2005 to 2020
	2005	2010	2015	2020	
Dentists	10,104	11,345	12,513	13,465	33.3
Dental therapists	1,271	1,300	1,261	1,204	–5.3
Dental hygienists	831	1,339	1,705	1,977	137.8
Dental prosthetists	860	841	816	786	–8.7
<b>Total</b>	<b>13,067</b>	<b>14,825</b>	<b>16,296</b>	<b>17,431</b>	<b>33.4</b>
	Projected number of employed practitioners per 100,000 population				
Dentists	49.5	52.7	55.2	56.6	14.3
Dental therapists	6.2	6.0	5.6	5.1	–18.8
Dental hygienists	4.1	6.2	7.5	8.3	3.9
Dental prosthetists	4.2	3.9	3.6	3.3	–21.7

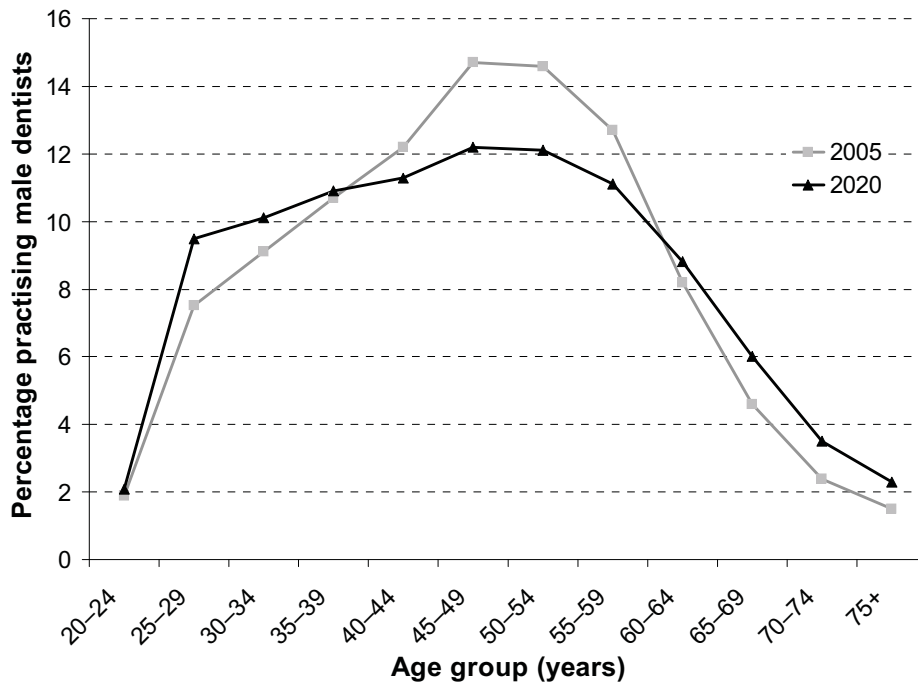
Sources: Tables D.3 and D.4.



The projected growth of the dentist labour force by sex is shown in Figure 10. The number of practising female dentists is projected to more than double by 2020, increasing from 2,861 in 2005 to a projected 5,354 in 2020. In contrast, the number of male dentists is projected to increase by 12%, from 7,243 in 2005 to 8,111 in 2020. The difference in growth rates is mainly due to the differences in age distribution of male and female dentists. Although recruitment of females and males is expected to be relatively similar over the course of the projection, the projected numbers of dentists ceasing practice is substantially higher for male dentists.



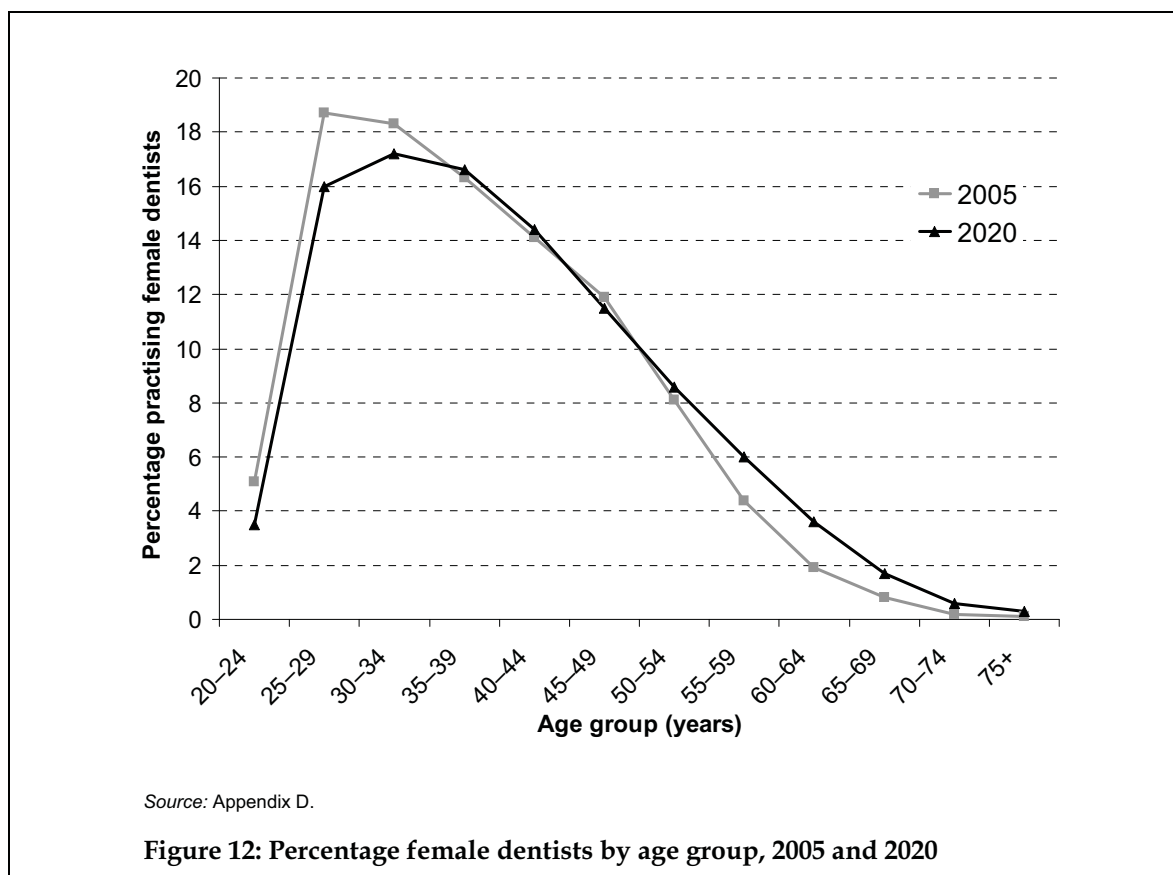
For male dentists the shape of the age distribution is projected to flatten slightly by 2020, with the percentage aged between 40 and 60 years dropping from 54.2% in 2005 to 46.7% in 2020 (Figure 11).



Source: Appendix D.

**Figure 11: Percentage male dentists by age group, 2005 and 2020**

The age distribution of female dentists is expected to alter slightly, with the percentage of females under the age of 35 years expected to decrease from 42.1% to 36.7% while those aged 50 years and over are expected to increase from 15.5% in 2005 to 20.8% by 2020 (Figure 12).



To estimate the projected supply of dental visits by dentists in 2020 the numbers of practising dentists were multiplied by age and sex specific supply rates (Table D.2). Over the past 40 years the length of a visit has been increasing as has the number of services supplied at a visit. As the number of hours worked per week has remained stable, the number of visits supplied has therefore declined substantially over that period (Brennan & Spencer 2006). It is unlikely that this decline in productivity, in terms of visits supplied per annum, will suddenly discontinue; however it is also uncertain whether it can continue at the previous rate. Hence it is assumed that the number of visits supplied per annum per dentist will continue to decline at half the rate as observed over the period 1983-84 to 2003-04 (see Appendix B).

To estimate the projected supply of dental visits by allied dental practitioners, the numbers of practising allied dental practitioners were multiplied by the occupation-specific supply rates (Table 3).

Total projected supply of dental visits is expected to increase from approximately 29.5 million visits in 2005 to 33.7 million visits in 2020. Visits provided by dentists are the greatest component, increasing from 25.5 million to 29.4 million visits over the same period. Allied dental practitioners provided approximately 4.1 million visits in 2005 and are projected to increase to 4.3 million visits by 2020 (Figure 13). This revised projection is referred to as the 'standard supply projection' in the following sections of this report.

