

## 4 Geographic overview

Key geographic issues for pharmacy workforce planning have been raised at State and national pharmacy workshops in recent years, including:

- the adequacy of pharmacy services to rural and remote areas;
- the impact of the ageing of the existing pharmacy workforce in these areas on the provision of services in the future; and
- whether there will be sufficient younger pharmacists willing to replace retiring rural pharmacists, given that rural pharmacies in small towns are more likely to be single pharmacist practices and the majority of younger pharmacists are women who may be less willing to work full time and in a proprietor role. In medicine, female general practitioners are less likely to practise in rural areas than are males.

The following tables suggest that the full-time equivalent provision of pharmacists per person in large and small rural centres in most States was similar to or exceeded that in non-capital city metropolitan areas. Outside these areas, the dispersed populations and small towns, coupled with lower average per person Medicare consultations with general practitioners, reduce the demand for and financial viability of pharmacy practice. In 1995–96, there were 4,853 general practice Medicare consultations per 1,000 persons in large rural centres, 4,617 in small rural centres, 4,188 in other rural areas and 3,693 in remote centres. The decline in full-time equivalent pharmacists per 100,000 population from 69.6 in small rural centres to 51.0 in other rural areas and 52.0 in remote centres reflected this gradient in demand.

In respect of the age structure of the pharmacy workforce in rural and remote areas (with the exception of remote centres), the percentage of employed pharmacists aged 65 years or more was much higher outside capital cities, although this partly reflected the relatively greater hospital pharmacy employment in capital cities. However, the proportion of pharmacists aged 65 years or more in metropolitan areas outside of the capital cities (9.1%) was higher than the 7.3% in large rural centres and 6.1% in small rural centres.

Of the 215 older pharmacists in rural and remote areas, 182 (84.7%) were males. Three hundred and thirty-four pharmacists in rural and remote areas in 1995 were aged less than 30 years, of whom 221 were female (representing 66.2% of the workforce). This suggests that, unlike medicine, there does not appear to be a problem in attracting female pharmacists to work in rural areas. Whether there are sufficient male and female pharmacists willing to replace retiring, full-time rural pharmacists in one-person pharmacies cannot be evaluated from the data available from the pharmacy labour force survey.

**Table 19: Employed pharmacists and full-time equivalent pharmacists per 100,000 population: geographic location of main job, States and Territories, 1995**

Geographic location	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
<b>Number of pharmacists per 100,000 population<sup>(a)</sup></b>									
Capital city	84.4	89.5	86.1	77.9	73.3	91.3	83.6	72.1	84.3
Other metropolitan centre	59.4	84.4	70.9	..	..	..	..	..	65.7
Large rural centre	68.5	77.6	77.9	..	51.9	74.8	..	..	74.4
Small rural centre	53.7	86.0	71.5	74.9	60.8	76.1	..	..	67.6
Other rural centre	55.1	54.9	38.7	54.3	40.1	49.7	0.0	0.0	49.3
Remote centre	..	..	43.1	45.2	..	..	..	47.1	44.6
Other remote area	33.3	35.4	32.6	24.5	20.6	44.8	..	38.3	30.8
<b>Total</b>	<b>73.8</b>	<b>83.4</b>	<b>70.5</b>	<b>69.9</b>	<b>65.0</b>	<b>74.4</b>	<b>83.5</b>	<b>42.0</b>	<b>74.4</b>
<b>Full-time equivalents<sup>(b)</sup> per 100,000 population</b>									
Capital city	66.6	73.2	66.9	63.3	58.4	70.2	69.4	60.5	67.5
Other metropolitan centre	46.8	66.5	58.0	..	..	..	..	..	52.5
Large rural centre	52.8	65.1	61.6	..	43.7	59.7	..	..	59.3
Small rural centre	41.6	71.0	58.6	61.3	46.3	63.0	..	..	54.3
Other rural centre	41.1	43.6	31.8	44.3	31.4	36.6	0.0	0.0	38.5
Remote centre	..	..	37.6	37.1	..	..	..	44.3	38.4
Other remote area	26.8	33.9	26.3	21.0	14.8	41.0	..	32.9	25.5
<b>Total</b>	<b>58.0</b>	<b>68.2</b>	<b>56.7</b>	<b>57.9</b>	<b>51.9</b>	<b>57.9</b>	<b>69.3</b>	<b>45.2</b>	<b>59.9</b>
<b>Full-time equivalents<sup>(c)</sup> per 100,000 population</b>									
Capital city	84.0	93.7	86.7	82.4	72.4	86.6	88.1	74.4	85.9
Other metropolitan centre	59.1	81.0	75.9	..	..	..	..	..	66.7
Large rural centre	68.0	81.8	82.7	..	55.6	80.8	..	..	77.6
Small rural centre	53.7	89.0	75.4	78.0	61.8	81.8	..	..	69.6
Other rural centre	54.0	56.0	43.8	61.2	43.0	47.1	0.0	0.0	51.0
Remote centre	..	..	51.6	49.3	..	..	..	60.2	52.0
Other remote area	35.7	45.2	38.0	31.6	19.0	41.0	..	41.9	35.4
<b>Total</b>	<b>73.7</b>	<b>87.0</b>	<b>74.6</b>	<b>75.9</b>	<b>65.4</b>	<b>73.7</b>	<b>88.0</b>	<b>57.0</b>	<b>76.8</b>

(a) Estimated resident population as at 30 June 1995.

(b) Calculated on the basis that all pharmacists working 35 or more hours per week are counted as one FTE and all those working less than 35 hours per week are a portion of an FTE.

(c) Calculated on the basis that hours worked are divided by 35 for all pharmacists—that is, a pharmacist working 70 hours per week equals two FTEs; one working 21 hours equals 0.6 FTEs.

Table 20: Employed pharmacists: age, geographic location of main job and sex, Australia, 1995

Age (years)	Geographic location							Total
	Capital city	Other metropolitan centre	Large rural centre	Small rural centre	Other rural area	Remote centre	Other remote area	
<b>Males</b>								
Less than 30	529	53	41	40	29	3	0	694
30–44	1,350	121	111	142	205	18	17	1,962
45–64	2,772	343	296	266	461	24	29	4,193
65 and over	362	69	52	38	80	3	9	614
<i>Total</i>	<i>5,013</i>	<i>586</i>	<i>500</i>	<i>486</i>	<i>775</i>	<i>47</i>	<i>55</i>	<i>7,463</i>
<i>Average age</i>	<i>47.6</i>	<i>50.2</i>	<i>49.7</i>	<i>47.8</i>	<i>51.0</i>	<i>47.6</i>	<i>51.0</i>	<i>48.6</i>
<b>Females</b>								
Less than 30	1,067	61	77	61	65	13	5	1,350
30–44	1,860	153	135	142	210	19	15	2,533
45–64	1,440	131	99	100	142	7	16	1,935
65 and over	97	17	8	11	13	0	1	147
<i>Total</i>	<i>4,464</i>	<i>363</i>	<i>319</i>	<i>313</i>	<i>430</i>	<i>39</i>	<i>37</i>	<i>5,964</i>
<i>Average age</i>	<i>39.9</i>	<i>42.6</i>	<i>39.9</i>	<i>41.2</i>	<i>41.9</i>	<i>35.7</i>	<i>43.1</i>	<i>40.4</i>
<b>All pharmacists</b>								
Less than 30	1,596	114	118	101	94	16	5	2,044
30–44	3,210	273	246	283	415	37	32	4,495
45–64	4,212	475	395	365	603	31	45	6,128
65 and over	458	87	60	49	93	3	10	760
<b>Total</b>	<b>9,477</b>	<b>949</b>	<b>819</b>	<b>798</b>	<b>1,205</b>	<b>86</b>	<b>93</b>	<b>13,426</b>
<b>Average age</b>	<b>44.0</b>	<b>47.3</b>	<b>45.9</b>	<b>45.2</b>	<b>47.7</b>	<b>42.1</b>	<b>47.8</b>	<b>45.0</b>
<b>(per cent)</b>								
Less than 30	16.8	12.0	14.4	12.6	7.8	18.5	5.6	15.2
30–44	33.9	28.8	30.1	35.5	34.4	42.4	34.6	33.5
45–64	44.4	50.1	48.2	45.8	50.0	35.6	48.8	45.6
65 and over	4.8	9.1	7.3	6.1	7.8	3.5	11.0	5.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Table 21: Employed pharmacists: total hours worked per week, geographic location of main job and sex, Australia, 1995**

Hours worked per week	Geographic location							Total
	Capital city	Other metropolitan centre	Large rural centre	Small rural centre	Other rural area	Remote centre	Other remote area	
<b>Males</b>								
1-9	186	22	27	19	49	1	3	307
10-19	221	36	23	12	36	1	1	331
20-29	279	47	20	24	34	1	1	407
30-34	235	32	4	21	19	0	0	311
35-39	486	52	44	48	36	6	1	673
40-49	1,744	189	178	188	248	10	22	2,579
50-59	1,310	160	146	128	274	18	15	2,052
60 and over	551	49	57	45	80	9	11	803
<b>Total</b>	<b>5,013</b>	<b>586</b>	<b>500</b>	<b>486</b>	<b>775</b>	<b>47</b>	<b>55</b>	<b>7,463</b>
<i>Average weekly hours</i>	<i>43.5</i>	<i>42.0</i>	<i>44.1</i>	<i>43.9</i>	<i>44.5</i>	<i>48.2</i>	<i>48.0</i>	<i>43.3</i>
<b>Females</b>								
1-9	367	30	33	26	61	0	4	521
10-19	655	41	47	61	78	5	1	887
20-29	658	73	45	56	60	4	3	898
30-34	359	35	24	21	34	0	0	473
35-39	632	39	34	44	44	4	3	799
40-49	1,313	108	102	60	104	21	17	1,725
50-59	343	25	26	30	41	5	8	478
60 and over	137	12	9	15	8	0	3	183
<b>Total</b>	<b>4,464</b>	<b>363</b>	<b>319</b>	<b>313</b>	<b>430</b>	<b>39</b>	<b>37</b>	<b>5,964</b>
<i>Average weekly hours</i>	<i>32.5</i>	<i>32.4</i>	<i>32.4</i>	<i>31.1</i>	<i>29.6</i>	<i>38.5</i>	<i>39.4</i>	<i>32.3</i>
<b>All pharmacists</b>								
1-9	554	51	60	45	110	1	7	828
10-19	876	77	70	73	113	6	3	1,218
20-29	937	120	65	80	95	5	4	1,305
30-34	594	67	28	42	52	0	0	783
35-39	1,118	91	78	92	79	10	4	1,472
40-49	3,057	297	280	248	352	31	39	4,304
50-59	1,653	185	171	159	315	23	23	2,530
60 and over	688	60	66	60	88	9	14	986
<b>Total</b>	<b>9,477</b>	<b>949</b>	<b>819</b>	<b>798</b>	<b>1,205</b>	<b>86</b>	<b>93</b>	<b>13,426</b>
<i>Average weekly hours</i>	<i>38.3</i>	<i>38.3</i>	<i>39.6</i>	<i>38.8</i>	<i>39.2</i>	<i>43.7</i>	<i>44.4</i>	<i>38.4</i>
<b>(per cent)</b>								
1-9	5.8	5.4	7.3	5.6	9.2	1.6	7.4	6.2
10-19	9.2	8.1	8.5	9.1	9.4	7.3	2.9	9.1
20-29	9.9	12.7	7.9	10.0	7.9	5.9	4.2	9.7
30-34	6.3	7.0	3.4	5.3	4.3	0.0	0.0	5.8
35-39	11.8	9.6	9.6	11.5	6.6	11.7	4.2	11.0
40-49	32.3	31.3	34.2	31.1	29.2	36.2	41.6	32.1
50-59	17.4	19.5	20.9	19.9	26.2	27.3	24.7	18.8
60 and over	7.3	6.4	8.1	7.5	7.3	10.0	15.1	7.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>