

## 4 Projected growth in demand

This chapter presents the projected growth in demand for CSDA services, in terms of the projected growth in the target group—people with severe or profound handicap. These projections are based on the ABS projected populations of Australia, States and Territories.

Section 4.1 provides background information and assumptions used in the population projections, followed by a discussion of the projected population growth. Section 4.2 presents the projected increases in the population with severe or profound handicap, including the projected growths in different disability groups. Sections 4.3–4.5 discuss other factors that are likely to affect the future growth in demand. Section 4.6 summarises the growth estimates in demand for disability support services in the next six years.

### 4.1 Projected growth in population

The estimates of projected growth in demand use the ABS projections of the population of Australia, States and Territories from 1995–2051. The ABS projections are based on a combination of assumptions on future levels of fertility, mortality and migration. The base population used for the projections is the estimated population at 30 June 1995 (ABS 1996a).

#### Assumptions underlying population projections

The ABS has published four main projection series (Series A–D) with two alternative assumptions about future fertility, one assumption about future mortality, two alternative assumptions about future levels of overseas migration and three alternative assumptions about interstate migration (Table 4.1).

**Table 4.1: Projection series and assumptions**

Series A		Series B		Series C		Series D	
Mortality		Mortality		Mortality		Mortality	
Fertility 1	H	Fertility 1	H	Fertility 1	H	<b>Fertility 2</b>	<b>L</b>
Overseas migration 1	L	Overseas migration 1	L	<b>Overseas migration 2</b>	<b>H</b>	Overseas migration 1	L
<b>Interstate migration 2</b>	<b>M</b>	<b>Interstate migration 1</b>	<b>H</b>	Interstate migration 2	M	Interstate migration 2	M

Source: Adapted from ABS 1996a.

In this report, four published projection series were considered and Series A has been chosen for use in the estimation of projected growth in demand during the period of 1997–2003. Series A assumes a high level of fertility, low level of overseas migration and medium level of interstate migration (for details of assumptions see Appendix Table A4.1).

Series B and A projected the same results at the national level and the only difference between the two Series is the assumed levels of interstate migration (Series A: Medium, Series B: High). Although the numbers of interstate migrants have been

greater over the period of 1985–1995 than those for the previous decade, this was mainly related to the large numbers of overseas migrants. Given that the current annual Commonwealth Government’s migrant visa quota has been reduced substantially, it is anticipated that this change will reduce the interstate movements. Hence, it is more appropriate to assume a medium level of interstate migration as in Series A.

Series C assumes a higher net overseas migration gain which does not reflect the current situation or foreseeable future.

Series D takes the most conservative combination of assumptions. It assumes not only low overseas migration but also lower fertility rates than those for Series A and B.

The projection period for this report is from 1997 to 2003. In a projection period of six years, projections based on the high and low fertility assumptions do not differ very much for the population aged 6 years onwards. The ABS disability survey did not classify the severity of handicap among people with disability under the age of 5 years. The projections of the number of people with a profound or severe handicap will only apply to the population aged 5 years and over. Hence, little difference would be expected in the projected numbers of people with profound or severe handicap between Series D and Series A.

In Series A Australia’s total fertility rate (TFR)<sup>7</sup> for 1994 of 1.85 was used in the projection. Total fertility rates for the States and Territories were set pro rata the total fertility rate for Australia as a whole from 1995, according to the observed pattern of TFRs for the States and Territories in recent years (ABS 1996a).

The mortality assumptions for the Northern Territory differ from those for the rest of the States and Territories. It was assumed that the observed mortality rates for all the States plus the Australian Capital Territory would converge to the mortality rates for the total Australia population by the year 2004 and then take on the Australian rates from 2004–2051. The assumed mortality rates for the Northern Territory do not converge to the Australian rates but decline at the same rate of change as for the Australian as a whole (ABS 1996a).

In the projections, the State and Territory distribution of annual net overseas migration gains were derived by applying the average proportional State and Territory distributions for the period 1992–95 of each of the migration flows (permanent arrivals, permanent departures, long-term arrivals, long-term departures and category jumping). This proportional distribution is assumed to remain unchanged throughout the projection period (ABS 1996a).

The assumed age–sex profiles of future interstate movement were calculated by averaging the profiles of the interstate movements recorded by the 1986 and 1991 censuses for 1985–86 and 1990–91 respectively. The profiles remain unchanged throughout the projection period (ABS 1996a).

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<sup>7</sup> Total fertility rate (TFR) is a summary measure for age-specific fertility rates, which reflects hypothetical completed fertility for a population. The rate for a given year indicates the average number of children that women would have over their lifetimes if they experienced the rates of child-bearing experienced by women at each age in the given year.

## Projected population growth

The Australian population is projected by ABS to grow from 18 million in 1995 to 19.8 million in the year 2003. The ABS projections show that the ageing of the Australian population will continue, as the inevitable result of low levels of fertility over a long period and decline in mortality rates. The proportion of people aged 0–14 years will be declining, while the population aged 65 years and over will increase over the projection period both in terms of numbers and as a proportion of the total population (ABS 1996a). The proportion of people aged 65 years and over will increase from 11.9% (2.2 million people) in 1995 to 12.5% (2.5 million people) in 2003.

The working age population (aged 15–64 years) will also be ageing. Although the total number of working age population is projected to increase throughout the projection period, the number of people aged 15–24 years declines until about the year 2001 and then increases slightly. As a proportion of the total working age population, the 15–24 age group is projected to decline from 15% in 1995 to about 13.6% in 2003. This decline mainly reflects the fall in births which occurred during the 1970s when these people were born (ABS 1996a).

The greatest growth among the working age population is in the population aged 45–64 years, from 3.7 million in 1995 to 4.7 million in 2003. The most rapid growth period is 1995–2011 when most of the post-World War Two baby-boom generation reach this age group (ABS 1996a).

The most rapidly growing States are Queensland and Western Australia. The population of Queensland is projected to increase from 3.3 million in 1995 to 3.8 million in 2003, an increase of 16.8%. During the same period, the population in Western Australia is projected to grow by 13.8%, from 1.7 million to just under 2 million. The growth rates of Queensland and Western Australia are well above the national average (9.5%).

Between 1995 and 2003, the two Territories also have higher than national average growth rates: the Northern Territory has a projected growth rate of 13.2% and the Australian Capital Territory 10.6%.

The States which have lower growth rates than the national average are: New South Wales 8.5%, from 6.1 million to 6.6 million; Victoria 6.0%, from 4.5 million to 4.8 million; South Australia 4%, from 1.4 million to 1.5 million. The growth rates of Victoria and South Australia are well below the national average of 9.5%.

Tasmania has the lowest growth rate among all States and Territories. Between 1995 and 2003 Tasmania's population is projected to increase by 2.8% (from 473,000 to 486,500). It is the only State expected to experience a decline in population during the whole projection period 1995–2051.

## 4.2 Projected growth in population with a severe or profound handicap

### Methods and assumptions of projections

The projections of numbers of people with a severe or profound handicap rely on the key finding that, as mentioned in Chapter 2, the age-standardised prevalence rates of severe or profound handicap have remained fairly steady since 1981. At this stage, there is no evidence that further allowances need to be made for increases in age-specific prevalence rates. This consistency in reported prevalence of severe or profound handicap over time increases the confidence with which these measures can be used in projections as statistical indicators of future demand for disability support services.

Two strands of projections have been conducted:

- projections of the population of persons with a severe or profound handicap; and
- projections of the population of persons with a severe or profound handicap within different disability groups.

The underlying assumptions are that the age–sex-specific prevalence rates of severe or profound handicap remain constant over the projection period and each State or Territory has the same age–sex-specific prevalence rates as those of the national average.

The estimates derived from the ABS disability survey at the national level contain valid and reliable information, while the estimates at State level are subject to relatively higher standard errors, particularly for those Territories and States with small populations. Use of national age–sex-specific rates, rather than State and Territory rates, aims to overcome the inaccuracy in the estimated prevalence rates of States due to small sample size.

The steps used in calculation were as follows:

Step 1: Data from the 1993 ABS disability survey are used to derive age–sex-specific rates of severe or profound handicap nationally.

Step 2: These rates are then applied to 1996–2003 age and sex distribution (from the ABS projected population) in each State and Territory as well as the total Australian population, to calculate the expected number of people with severe or profound handicap by age and sex for each jurisdiction and for the total Australian population.

Step 3: The resulting numbers are added to give an estimate of the projected number of people with severe or profound handicap in that jurisdiction or in the Australian population.

### The growth estimates of severe or profound handicap (1997–2003)

Between 1997 and 2003 the total number of Australians with a severe or profound handicap is projected to increase by 13.7% (109,200 people) (Tables 4.2 and 4.3). The overall growth is mainly attributable to the rapid increase in the age groups of 45–64 years (19.5% or 32,600 people) and 65 years and over (17.3% or 70,200 people), corresponding to the ageing of the overall population.

In the age group of 5–64 years the total projected increase in the number of people with a severe or profound handicap is 9.9% or 39,100 people, while the increase varies with age. The growth in the working age population (age 15–64) is 11.3% or 37,200 people. Nationally, the highest rate of increase is in the age group of 45–64 years, and is associated with its highest rate of growth in the overall population. In contrast, the projected population decline in the age group of 15–24 years results in a negative growth rate in the number of people with a severe or profound handicap in the age group of 20–29 years (Tables 4.2 and 4.3).

There are considerable differences in the projected growth rates among the States and Territories (Table 4.2). During the period 1997–2003, two States and the two Territories have higher growth rates than those for the national average in the projected number of people with a severe or profound handicap: Queensland 18.7%, Western Australia 15.8%, the Northern Territory 17.4% and the Australian Capital Territory 16.9%. The States which have lower growth rates than the national average are: New South Wales 13.0%, Victoria 11.3%, South Australia 11.1% and Tasmania 10.7%.

The age patterns of the growth show that in most of the States and Territories the highest increase in the number of people with a severe or profound handicap is in the age group of 45–64 years (Table 4.2). However, in the two Territories, the highest growth is in the age group of 65 years and over, followed by the age group of 45–64 years.

Growth is experienced in all age groups in Queensland, Western Australia and the Northern Territory, while for the rest of the States and Territories, negative growth is projected to occur in one or more of the age groups among people aged under 45 years. In Tasmania, the lowest overall growth rate of 10.7% is attributable to the negative growth rates in most of the age groups among people aged under 45 years (Table 4.2), corresponding to the projected decline in Tasmania's population.

The magnitudes of the growth differ markedly between the States and Territories in the age groups of 45–64 and 65 or over, which range from as high as over 30% for the Northern Territory to as low as about 15% for Victoria (Table 4.2).

Although the projections show few sex differences in the overall growth rates from 1997 to 2003, the projected increase in the absolute number of females with a severe or profound handicap (64,900 people) is considerably higher than that for males (44,400 people) (Table 4.3). This is related to the higher prevalence rates of severe or profound handicap among females, particularly for those aged 45 years and over (AIHW 1995).

Projected populations for all States and Territories, for ages 5–64 years, and ages 65 years and over, and for the total population, are set out in Tables 4.4, 4.5 and 4.6 respectively. (For more details of growth estimates for the States and Territories see Tables A4.3–A4.19.)

**Table 4.2: Changes in the projected population<sup>(a)</sup> of persons with a profound or severe handicap, by age and sex, by States and Territories, Australia, 1997–2003**

Age	% changes in number of persons with profound or severe handicap <sup>(b)</sup>								
	NSW	Vic.	Qld	WA	SA	Tas.	ACT	NT	Australia
<b>Males</b>									
5–14	3.6	1.5	7.3	2.0	–2.0	–4.3	–1.4	3.4	<b>2.9</b>
15–19	3.2	1.3	7.8	7.4	4.6	1.2	–2.0	6.3	<b>4.0</b>
20–29	–5.1	–7.6	1.2	1.7	–8.4	–6.8	1.6	7.7	<b>–3.9</b>
30–44	4.2	3.0	10.7	6.6	1.7	–1.2	10.4	–1.3	<b>5.1</b>
45–64	18.2	16.3	24.9	23.7	17.0	17.9	20.3	27.7	<b>19.5</b>
65+	19.9	17.5	24.6	22.0	17.2	16.2	30.4	39.2	<b>20.1</b>
Total 5–64	8.8	6.9	14.6	12.0	6.4	5.6	10.1	11.0	<b>9.5</b>
Total 15–64	10.0	8.2	16.4	14.5	8.4	8.1	12.9	13.3	<b>11.1</b>
<i>Total</i>	<i>13.3</i>	<i>11.2</i>	<i>18.5</i>	<i>15.7</i>	<i>11.1</i>	<i>10.0</i>	<i>15.6</i>	<i>15.2</i>	<b><i>13.7</i></b>
<b>Females</b>									
5–14	3.3	1.4	7.1	2.6	–1.1	–5.3	0.2	3.2	<b>2.9</b>
15–19	4.2	1.2	8.3	8.0	4.5	2.9	–6.1	9.9	<b>4.5</b>
20–29	–5.2	–8.6	–0.8	2.2	–7.6	–7.3	3.0	–1.8	<b>–4.5</b>
30–44	6.0	4.3	12.5	7.1	1.8	–0.1	8.5	6.5	<b>6.5</b>
45–64	17.6	16.8	25.7	24.0	16.2	17.4	20.4	35.2	<b>19.5</b>
65+	15.0	13.9	21.3	18.0	13.5	14.4	26.8	35.8	<b>16.0</b>
Total 5–64	9.4	7.8	15.7	13.3	7.1	6.5	10.9	14.8	<b>10.4</b>
Total 15–64	10.4	8.8	17.0	14.9	8.3	8.4	12.4	17.1	<b>11.5</b>
<i>Total</i>	<i>12.8</i>	<i>11.4</i>	<i>18.8</i>	<i>15.9</i>	<i>11.1</i>	<i>11.2</i>	<i>17.8</i>	<i>19.4</i>	<b><i>13.7</i></b>
<b>Persons</b>									
5–14	3.5	1.4	7.2	2.3	–1.7	–4.7	–0.8	3.3	<b>2.9</b>
15–19	3.7	1.2	8.0	7.7	4.5	2.1	–4.1	8.1	<b>4.3</b>
20–29	–5.2	–8.1	0.1	1.9	–8.0	–7.1	2.3	2.5	<b>–4.2</b>
30–44	5.2	3.7	11.6	6.8	1.8	–0.6	9.5	2.7	<b>5.8</b>
45–64	17.8	16.6	25.3	23.9	16.6	17.6	20.4	31.4	<b>19.5</b>
65+	16.6	15.0	22.4	19.3	14.6	15.0	28.0	37.2	<b>17.3</b>
Total 5–64	9.1	7.4	15.1	12.6	6.8	6.1	10.5	12.9	<b>9.9</b>
Total 15–64	10.2	8.5	16.7	14.7	8.4	8.3	12.6	15.3	<b>11.3</b>
<b>Total</b>	<b>13.0</b>	<b>11.3</b>	<b>18.7</b>	<b>15.8</b>	<b>11.1</b>	<b>10.7</b>	<b>16.9</b>	<b>17.4</b>	<b>13.7</b>

(a) ABS population projections (Series A) as at 30 June.

(b) Estimated numbers were calculated using national age- and sex-specific prevalence rates derived from the ABS 1993 Survey of Disability, Ageing and Carers.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data; ABS 1996a.

**Table 4.3: Projected population<sup>(a)</sup> of persons with a profound or severe handicap ('000), by age and sex, Australia, 1996–2003**

Age	Number with profound or severe handicap <sup>(b)</sup>							
	1996	1997	1998	1999	2000	2001	2002	2003
<b>Males</b>								
5–14	38.0	38.2	38.4	38.5	38.6	38.8	39.1	39.3
15–19	8.0	8.1	8.2	8.3	8.4	8.4	8.4	8.4
20–29	20.7	20.8	20.9	20.8	20.7	20.4	20.2	20.0
30–44	47.8	48.3	48.7	49.1	49.5	50.0	50.4	50.7
45–64	76.3	78.6	80.9	83.3	85.8	88.5	91.2	93.9
65+	125.1	129.1	132.9	137.0	141.4	146.2	150.7	155.1
Total 5–64	190.8	194.0	197.0	200.0	203.0	206.1	209.3	212.4
Total 15–64	152.9	155.8	158.6	161.5	164.4	167.3	170.2	173.1
<i>Total</i>	<i>315.9</i>	<i>323.2</i>	<i>329.9</i>	<i>337.0</i>	<i>344.4</i>	<i>352.3</i>	<i>360.1</i>	<i>367.5</i>
<b>Females</b>								
5–14	25.8	25.9	26.1	26.2	26.2	26.4	26.5	26.0
15–19	8.5	8.6	8.7	8.8	8.9	8.9	9.0	9.0
20–29	24.0	24.1	24.1	24.0	23.8	23.5	23.2	23.0
30–44	51.2	51.7	52.2	52.7	53.3	54.0	54.7	55.0
45–64	86.2	88.7	91.2	94.0	96.9	99.8	102.8	106.0
65+	268.5	275.8	282.6	289.7	297.1	305.7	313.1	320.0
Total 5–64	195.7	199.0	202.3	205.6	209.1	212.5	216.2	219.7
Total 15–64	169.9	173.1	176.2	179.4	182.8	186.2	189.7	193.0
<i>Total</i>	<i>464.3</i>	<i>474.8</i>	<i>484.9</i>	<i>495.3</i>	<i>506.2</i>	<i>518.3</i>	<i>529.3</i>	<i>539.7</i>
<b>Persons</b>								
5–14	63.7	64.2	64.5	64.7	64.9	65.2	65.6	66.0
15–19	16.6	16.7	16.9	17.0	17.2	17.3	17.4	17.4
20–29	44.7	45.0	45.0	44.9	44.5	44.0	43.4	43.1
30–44	99.0	100.0	100.9	101.7	102.8	104.0	105.1	105.8
45–64	162.5	167.3	172.1	177.3	182.7	188.2	194.1	199.9
65+	393.6	404.9	415.5	426.6	438.5	451.9	463.8	475.0
Total 5–64	386.5	393.1	399.3	405.6	412.1	418.6	425.5	432.1
Total 15–64	322.8	328.9	334.9	340.9	347.2	353.4	359.9	366.1
<b>Total</b>	<b>780.2</b>	<b>798.0</b>	<b>814.9</b>	<b>832.3</b>	<b>850.6</b>	<b>870.5</b>	<b>889.3</b>	<b>907.2</b>

(a) ABS population projections (Series A) as at 30 June.

(b) Estimated numbers were calculated using national age- and sex-specific prevalence rates derived from the ABS 1993 Survey of Disability, Ageing and Carers.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data; ABS 1996a.

**Table 4.4: Projected population<sup>(a)</sup> of persons aged 5–64 years with a profound or severe handicap ('000), by States and Territories, Australia, 1996–2003**

	Number with profound or severe handicap <sup>(b)</sup>							
	1996	1997	1998	1999	2000	2001	2002	2003
NSW	130.5	132.5	134.5	136.4	138.4	140.5	142.6	144.6
Vic.	95.8	97.0	98.2	99.3	100.5	101.7	103.0	104.2
Qld	70.9	72.8	74.6	76.4	78.2	80.1	82.0	83.9
WA	37.7	38.5	39.3	40.1	40.9	41.7	42.6	43.4
SA	31.1	31.4	31.7	32.0	32.4	32.7	33.1	33.5
Tas.	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7
ACT	6.6	6.7	6.8	6.9	7.0	7.2	7.3	7.4
NT	3.8	3.9	4.0	4.1	4.2	4.2	4.3	4.4
<b>Australia</b>	<b>386.5</b>	<b>393.1</b>	<b>399.3</b>	<b>405.6</b>	<b>412.1</b>	<b>418.6</b>	<b>425.5</b>	<b>432.1</b>

(a) ABS population projections (Series A) as at 30 June.

(b) Estimated numbers were calculated using national age- and sex-specific prevalence rates derived from the ABS 1993 Survey of Disability, Ageing and Carers.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data; ABS 1996a.

**Table 4.5: Projected population<sup>(a)</sup> of persons aged 65 years and over with a profound or severe handicap ('000), by States and Territories, Australia, 1996–2003**

	Number with profound or severe handicap <sup>(b)</sup>							
	1996	1997	1998	1999	2000	2001	2002	2003
NSW	138.9	142.7	146.4	150.1	154.0	158.6	162.7	166.4
Vic.	101.8	104.3	106.6	109.1	111.8	114.9	117.5	119.9
Qld	67.3	69.7	72.2	74.6	77.2	80.0	82.8	85.4
WA	33.1	34.2	35.1	36.1	37.3	38.6	39.7	40.8
SA	37.3	38.2	39.1	40.0	41.0	42.0	42.9	43.8
Tas.	10.7	11.0	11.2	11.5	11.7	12.1	12.4	12.6
ACT	3.7	3.8	4.0	4.1	4.3	4.5	4.7	4.9
NT	0.8	0.9	0.9	1.0	1.0	1.1	1.2	1.2
<b>Australia</b>	<b>393.6</b>	<b>404.9</b>	<b>415.5</b>	<b>426.6</b>	<b>438.5</b>	<b>451.9</b>	<b>463.8</b>	<b>475.0</b>

(a) ABS population projections (Series A) as at 30 June.

(b) Estimated numbers were calculated using national age- and sex-specific prevalence rates derived from the ABS 1993 Survey of Disability, Ageing and Carers.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data; ABS 1996a.



**Table 4.6: Projected population<sup>(a)</sup> of persons with a profound or severe handicap ('000), by States and Territories, Australia, 1996–2003**

	Number with profound or severe handicap <sup>(b)</sup>							
	1996	1997	1998	1999	2000	2001	2002	2003
NSW	269.4	275.3	280.9	286.6	292.5	299.0	305.2	311.0
Vic.	197.6	201.3	204.8	208.4	212.3	216.6	220.5	224.1
Qld	138.2	142.6	146.8	151.1	155.4	160.1	164.7	169.2
WA	70.9	72.7	74.5	76.2	78.2	80.3	82.3	84.2
SA	68.3	69.6	70.8	72.0	73.4	74.8	76.1	77.3
Tas.	20.8	21.1	21.4	21.8	22.1	22.6	23.0	23.4
ACT	10.3	10.6	10.8	11.1	11.4	11.7	12.0	12.3
NT	4.6	4.8	4.9	5.0	5.2	5.3	5.5	5.6
<b>Australia</b>	<b>780.2</b>	<b>798.0</b>	<b>814.9</b>	<b>832.3</b>	<b>850.6</b>	<b>870.5</b>	<b>889.3</b>	<b>907.2</b>

(a) ABS population projections (Series A) as at 30 June.

(b) Estimated numbers were calculated using national age- and sex-specific prevalence rates derived from the ABS 1993 Survey of Disability, Ageing and Carers.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data; ABS 1996a.

## The growth estimates of severe or profound handicap within different disability groups

### Main disabling condition versus all disabling conditions

Table 1.4 in Chapter 1 grouped the ABS survey data on the 'primary disabling condition' of each person into a 'disability group'. Primary disabling condition is the condition identified by the respondent with multiple conditions as the one causing the most problems. Where only one condition is recorded, this is coded as the primary disabling condition (ABS 1993). This way of tabulating data ensures that each person is counted only once, and is useful where it is important to keep the totals constant.

However, where the focus is on the prevalence of particular conditions or the numbers of people affected by each disability, another approach is required. The prevalence of a particular disability group will be underestimated if only main disabling conditions are considered. The 1993 disability survey shows that 61.4% of people with a disability reported more than one disabling condition, and about 30% reported conditions related to two or more disability groups such as intellectual, psychological, sensory and physical (ABS 1996b).

A comparison of the prevalence of various conditions reported from the 1993 survey, according to whether they were reported as primary conditions or among a number of disabling conditions, indicated that prevalence estimates derived from all reported conditions were substantially higher than those indicated by their presence as a primary condition (AIHW 1995).

For these reasons, the estimates of prevalence in terms of different disability groups were derived on the basis of *all* disabling conditions reported by people with a profound or severe handicap (for details of the AIHW approach see Madden et al. 1995). This focus means that the following tables cannot be totalled to give total numbers of people, and do not accord with other tables in this report where each

person in the survey was counted only once. The purpose here is to reflect the projected change over time in the prevalence of conditions or the numbers of people within each disability group. Any one person can be counted in more than one group. The projections of the growth estimates assume that the observed age- and sex-specific prevalence rates within each disability group remain constant over the whole projection period.

### **The growth estimates in different disability groups (1997–2003)**

The projections (Tables 4.7–4.10) show that, corresponding to the projected population growth, the estimated overall growth in different disability groups is mainly due to the rapid increases in the population age groups of 45–64 years and 65 years and over. (For details of the growth estimates by age and sex see Tables A4.20–A4.45.)

Nevertheless, the sizes of the increase vary among different disability groups aged 5–64 years. The projected growth rates in the numbers of people in hearing (12.0%), circulatory (15.2%) and arthritis (16.0%) disability groups are markedly higher than the overall growth rate (9.9%) of people with a profound or severe handicap in this age group. The higher growth rates of these disability groups is probably related to the higher growth rates in the older age groups, 45–64 years.

In contrast, the growth rates of intellectual (5.0%) and speech (4.9%) disability groups are lower than the overall growth rate of people with a severe or profound handicap. The growth rate for learning disability is 3.4%, much lower than the rates for other disability groups, aged 5–64 years. This is partly because of the limitations of the survey questionnaire to identify this particular disability group. The observed age-specific prevalence rates of learning disability from the 1993 survey suggest that this disability is strongly related to younger age groups, as the majority of the cases were reported by people under the age of 45 years. Hence, the low growth rate of learning disability is also associated with the slow growth in the projected population under the age of 45 years.

Although there are few sex differences in the overall growth rates in the number of people with profound or severe handicap (Table 4.2), the growth rates of males and females vary among different disability groups (Table 4.7).

The number of females aged 5–64 years with severe or profound handicap is projected to remain higher than the number of males (Table 4.3). Nevertheless, among people under the age of 65 years, the number of males is higher than females in intellectual, acquired brain injury, visual, hearing, speech, and other musculoskeletal disability groups (see Tables A4.20–A4.32).

**Table 4.7: Changes in the projected population<sup>(a)</sup> of persons with a profound or severe handicap, by age and sex, within disability groups, Australia, 1997–2003**

Age	% changes in number with profound or severe handicap <sup>(b)</sup>												
	Intellectual	Learning	Psychiatric	Acquired brain injury	Vision	Hearing	Speech	Circulatory	Respiratory	Arthritis	Other MSD <sup>(c)</sup>	Other physical	Neurological
<b>Males</b>													
5–14	2.9	2.9	2.9	2.9	3.0	2.9	2.9	2.8	2.9	0.0	3.0	2.9	2.9
15–19	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
20–29	-3.4	-3.2	-3.7	-4.2	-4.9	-3.9	-3.6	-4.4	-4.4	-4.7	-4.0	-4.4	-4.3
30–44	6.8	3.0	6.8	3.1	4.3	4.9	2.8	2.4	8.0	3.9	4.8	4.4	4.8
45–64	16.8	18.9	17.8	19.1	18.9	20.1	15.4	19.6	18.3	20.0	19.2	19.0	17.9
65+	22.3	2.9	23.5	20.3	23.9	22.8	21.6	21.8	16.5	20.8	17.7	20.3	17.4
Total 5–64	5.0	2.3	8.6	10.0	8.2	14.0	4.0	14.8	7.6	15.6	10.4	10.6	1.9
Total 15–64	6.4	0.6	9.5	11.5	8.9	15.8	4.5	15.1	10.9	15.6	10.8	11.8	8.9
<i>Total</i>	<i>10.7</i>	<i>2.3</i>	<i>14.9</i>	<i>15.0</i>	<i>18.1</i>	<i>19.7</i>	<i>10.2</i>	<i>19.5</i>	<i>11.0</i>	<i>18.5</i>	<i>12.7</i>	<i>15.1</i>	<i>10.8</i>
<b>Females</b>													
5–14	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.9	2.9	2.9	2.9
15–19	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
20–29	-4.2	-5.5	-4.8	-4.0	-5.7	-5.0	-4.4	-3.9	-3.8	-5.5	-5.0	-4.6	-4.5
30–44	4.9	4.9	6.0	6.0	4.8	6.7	6.6	9.0	6.6	6.8	6.1	6.2	8.0
45–64	16.8	16.3	19.4	18.9	18.8	19.0	19.5	20.8	19.4	19.9	18.5	19.5	21.5
65+	20.9	8.4	18.5	16.6	18.1	20.4	18.3	15.9	12.0	15.1	16.9	16.2	17.4
Total 5–64	5.0	4.5	9.5	9.5	9.2	9.9	6.2	15.5	10.0	16.2	10.2	11.9	9.1
Total 15–64	5.6	5.3	10.2	10.9	10.8	11.5	7.5	16.1	12.2	16.3	10.8	12.9	10.4
<i>Total</i>	<i>13.9</i>	<i>5.3</i>	<i>15.0</i>	<i>13.9</i>	<i>16.6</i>	<i>18.1</i>	<i>12.8</i>	<i>15.8</i>	<i>10.9</i>	<i>15.5</i>	<i>14.1</i>	<i>14.7</i>	<i>12.7</i>
<b>Persons</b>													
5–14	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.9	2.9	2.9	2.9	2.9
15–19	4.3	4.4	4.3	4.3	4.3	4.1	4.3	4.3	4.2	4.3	4.3	4.3	4.1
20–29	-3.8	-3.9	-4.2	-4.1	-5.4	-4.7	-3.9	-4.1	-4.1	-5.0	-4.4	-4.5	-4.4
30–44	5.7	4.6	6.4	4.4	4.4	6.1	4.6	6.3	7.0	5.7	5.4	5.3	6.5
45–64	16.8	16.8	18.7	19.0	18.9	19.7	17.1	20.2	19.0	20.0	18.9	19.3	19.9
65+	21.3	8.3	20.1	18.2	19.9	21.2	19.6	17.6	13.7	16.6	17.1	17.5	17.4
Total 5–64	5.0	3.4	9.1	9.8	8.7	12.0	4.9	15.2	8.9	16.0	10.3	11.3	8.6
Total 15–64	6.0	4.0	9.8	11.2	9.7	13.7	5.8	15.6	11.6	16.0	10.8	12.4	9.7
<b>Total</b>	<b>12.5</b>	<b>4.0</b>	<b>15.0</b>	<b>14.4</b>	<b>17.2</b>	<b>18.7</b>	<b>11.5</b>	<b>17.1</b>	<b>11.0</b>	<b>16.4</b>	<b>13.5</b>	<b>14.9</b>	<b>12.0</b>

(a) ABS population projections (Series A) as at 30 June.

(b) Estimated numbers were calculated using national age-specific prevalence rates derived from the ABS 1993 Survey of Disability, Ageing and Carers.

(c) Other musculoskeletal disorder.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data; ABS 1996a.

**Table 4.8: Projected population<sup>(a)</sup> of persons aged 5–64 years with a profound or severe handicap ('000), within disability groups,<sup>(b)</sup> Australia, 1996–2003**

	Number with profound or severe handicap <sup>(b)</sup>							
	1996	1997	1998	1999	2000	2001	2002	2003
Intellectual	101.2	102.0	102.9	103.6	104.5	105.3	106.2	107.1
Learning	10.4	10.5	10.6	10.6	10.7	10.7	10.8	10.9
Psychiatric	103.8	105.6	107.3	108.9	110.5	112.1	113.6	115.1
Acquired brain injury	78.4	79.8	81.1	82.3	83.7	84.9	86.3	87.6
Vision	34.7	35.2	35.6	36.1	36.6	37.1	37.7	38.2
Hearing	58.2	59.2	60.2	61.2	62.4	63.6	65.0	66.3
Speech	70.3	71.0	71.7	72.3	72.8	73.4	73.9	74.5
Circulatory	57.1	58.3	59.5	60.9	62.4	63.8	65.5	67.2
Respiratory	74.5	75.6	76.7	77.7	78.8	80.0	81.2	82.4
Arthritis	98.9	101.5	104.0	106.6	109.3	112.0	114.9	117.7
Other musculoskeletal	112.9	115.1	117.2	119.2	121.2	123.2	125.1	126.9
Other physical	210.6	214.8	218.8	222.8	226.8	230.8	234.9	239.0
Neurological	59.6	60.6	61.6	62.5	63.3	64.2	65.0	65.8

(a) ABS population projections (Series A) as at 30 June.

(b) Estimated numbers were calculated using national age-specific prevalence rates derived from the ABS 1993 Survey of Disability, Ageing and Carers.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data; ABS 1996a.

**Table 4.9: Projected population<sup>(a)</sup> of persons aged 65 years and over with a profound or severe handicap ('000), within disability groups,<sup>(b)</sup> Australia, 1996–2003**

	Number with profound or severe handicap <sup>(b)</sup>							
	1996	1997	1998	1999	2000	2001	2002	2003
Intellectual	84.2	87.1	89.9	92.9	96.1	99.7	102.8	105.6
Learning	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5
Psychiatric	119.2	123.1	126.9	130.9	135.2	139.9	144.0	147.8
Acquired brain injury	95.6	98.4	101.1	104.0	107.0	110.4	113.4	116.3
Vision	107.6	111.1	114.5	118.1	121.9	126.1	129.8	133.2
Hearing	154.4	159.6	164.7	170.1	176.1	182.5	188.3	193.5
Speech	56.6	58.4	60.1	61.9	63.8	66.1	68.0	69.8
Circulatory	192.3	197.9	203.2	208.7	214.7	221.4	227.3	232.8
Respiratory	55.3	56.6	57.8	58.9	60.2	61.7	63.0	64.3
Arthritis	186.9	192.2	197.3	202.5	207.9	213.9	219.2	224.1
Other musculoskeletal	98.6	101.3	103.9	106.6	109.5	112.8	115.9	118.7
Other physical	289.4	297.7	305.6	313.9	322.6	332.6	341.4	349.7
Neurological	37.3	38.3	39.3	40.3	41.5	42.8	43.9	45.0

(a) ABS population projections (Series A) as at 30 June.

(b) Estimated numbers were calculated using national age-specific prevalence rates derived from the ABS 1993 Survey of Disability, Ageing and Carers.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data; ABS 1996a.

**Table 4.10: Total projected population<sup>(a)</sup> of persons with a profound or severe handicap ('000), within disability groups,<sup>(b)</sup> Australia, 1996–2003**

	Number with profound or severe handicap <sup>(b)</sup>							
	1996	1997	1998	1999	2000	2001	2002	2003
Intellectual	185.3	189.1	192.7	196.5	200.6	205.1	209.0	212.8
Learning	11.8	11.9	12.0	12.1	12.2	12.2	12.3	12.4
Psychiatric	223.0	228.7	234.1	239.8	245.7	251.9	257.6	262.9
Acquired brain injury	174.0	178.2	182.2	186.3	190.7	195.3	199.7	203.8
Vision	142.3	146.3	150.1	154.2	158.5	163.2	167.5	171.4
Hearing	212.6	218.8	224.8	231.4	238.4	246.1	253.2	259.8
Speech	126.9	129.4	131.8	134.1	136.7	139.4	141.9	144.3
Circulatory	249.4	256.2	262.7	269.6	277.0	285.2	292.8	300.0
Respiratory	129.8	132.2	134.4	136.7	139.0	141.6	144.2	146.7
Arthritis	285.9	293.7	301.2	309.1	317.2	325.9	334.0	341.8
Other musculoskeletal	211.5	216.4	221.1	225.8	230.7	236.0	241.0	245.6
Other physical	500.0	512.5	524.4	536.6	549.5	563.4	576.4	588.7
Neurological	96.9	99.0	100.9	102.8	104.8	107.0	108.9	110.8

(a) ABS population projections (Series A) as at 30 June.

(b) Estimated numbers were calculated using national age-specific prevalence rates derived from the ABS 1993 Survey of Disability, Ageing and Carers.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data; ABS 1996a.

## 4.3 Other demographic factors

### Epidemiological factors

Epidemiological factors could influence the prevalence of disability. Morbidity is considered as an important predictor variable of disability and it often predicts and explains, along with other factors, the prevalence and pattern of disability (Chamie 1995). Nevertheless, the relationships among mortality, morbidity and disability are complex.

In Australia, the number of people reporting long-term health conditions increased from 6.2 million (45% of the total population) in the 1977–78 National Health Survey to 11.2 million (66% of the total population) in the 1989–90 survey and 13.5 million (75% of the total population) in the 1995 survey (ABS 1979, 1991, 1996c). Although there are some differences in the way conditions were identified and classified in the three surveys, it is clear that long-term morbidity in Australia has increased over the past two decades.

In the meantime, the Australian population experienced a decline in mortality and an increase in life expectancy. However, the gain in life expectancy at birth in the 1980s mainly came from reduction of mortality in the 50–69 age group for males and in the age groups of 50–69 and 70 and over for females (Jain 1992). It appears that the

combination of mortality decline and morbidity increase has resulted in more survivors who are frail and suffer from chronic conditions (Verbrugge 1984). Mathers (1995) suggested that the extension of life expectancy has been accompanied by an extension of years lived with disability, although this is usually 'mild or moderate' disability; years lived with severe disability do not appear to have been extended.

At the present time there are no population survey data in Australia which contain information linking morbidity to disability. In the next ABS disability survey (1998), information linking health conditions to particular impairment or activity limitations may assist in relating morbidity to the study of disability in the future.

Possible factors contributing to the substantial increase in reported disability and handicap prevalence levels at the less severe end of the disability spectrum have been discussed (Otis & Howe 1991; Mathers 1991, 1996). Apart from the factors related to rising levels of long-term morbidity, other proposed explanations include changes in community perceptions of disability and handicap, and changes in strategies of medical prevention and intervention.

Little of national reliability is known about trends in the long-term effects of injury. However mortality due to a number of significant external causes, such as transport and road injuries, has decreased in recent years (Abraham et al. 1995; Alessandri et al. 1996; Bordeaux & Harrison 1996) so there may be some effects on disability prevalence (although it is not certain whether there would be related falls or rises in the prevalence of disability).

Perinatal data on the incidence of congenital malformations may also shed light on factors affecting trends in disability prevalence. Recent information from the National Perinatal Statistics Unit of the Institute suggests that rates of congenital malformation have been declining in the 1990s (Lancaster et al. 1997). Perinatal deaths due to congenital malformations declined from 35.9 per 10,000 births in 1973 to 17.5 per 10,000 births in 1994 (Lancaster et al. 1997). Infant deaths and deaths of children aged 1–14 years because of congenital malformations also declined between 1980 and 1994.

### **Indigenous factors**

The main estimates in Chapter 2 and Section 4.1 are based on the premise that the presence of severe or profound handicap is an important population indicator of the need for CSDA services (Section 2.2). The presence in a population of a large proportion of Aboriginal or Torres Strait Islander people is considered to be a further indication of higher need, in that population, of such services. While there is not extensive data on disability among Indigenous people, what evidence there is, points to higher rates of disability (AIHW 1997a: 304–305):

The National Aboriginal and Torres Strait Islander Survey results showed 2.8% of people aged 25–44 and 1% of those aged 15–24 reporting severe or profound handicap in 1994 (ABS 1995b). While these results appeared similar to those for the general population, reported in the Disability, Ageing and Carers Survey (Table 9.1; AIHW 1995:246), the two surveys were not considered strictly comparable.

Rather, it could be expected that rates of disability among Indigenous people would be higher than those of the general population, because of their higher rates of disabling conditions. For instance, Indigenous people experience higher rates of injury, and respiratory and circulatory disease—all often associated

with disability (ABS & AIHW 1997). A study in a New South Wales region, using ABS definitions, found rates of severe handicap about 2.4 times higher than the total population (Thomson & Snow 1994). Subsequent studies of service use are consistent with this finding; Aboriginal and Torres Strait Islander people in the Northern Territory were twice as likely to be users of disability support services (Black & Eckerman 1997) and made greater use of Home and Community Care (HACC) services at younger ages (Jenkins 1995).

This issue was addressed by the Institute in preparing population figures for use in the denominators of national performance indicators for CSDA services. Here it was argued that, on the basis of evidence such as that quoted above, the Indigenous population in each jurisdiction should be weighted by 2, in order to give an adjusted 'potential population' for CSDA services. This proposal was adopted by the working group advising on the construction of the performance indicators, and results for 1995 have been previously published (AIHW 1997b and SCRCSSP 1997).

Results for 1996 are presented in Table 4.11. The Indigenous factor has been updated to take into account the results of the 1996 census, which resulted in significant growth in the numbers of people identifying as being of Indigenous origin. When compared to the relative distribution of either the total population or the population with severe or profound handicap, the adjusted 'potential population' adjusts upward for the Northern Territory, Queensland and Western Australia, and downward for most other States and Territories.

In order to estimate the 'potential population' for CSDA services in 2003, the Indigenous factor was applied to the projected estimates of people with severe or profound handicap in 2003 (Table 4.12). The adjustment was made by assuming that the 1996 Indigenous factor remains constant over the entire projection period. The effect is similar to the adjustments for Table 4.11, with upward adjustments to the figures for Queensland, Western Australia and the Northern Territory, and downward adjustments for New South Wales, Victoria and South Australia. The projected growth for Queensland and Western Australia is of greater significance in their growing 'share' of the target population for CSDA services than is the adjustment for Indigenous factors.



**Table 4.11: People aged under 65 years with severe or profound handicap by State and Territory, calculation of potential population, with adjustment for Indigenous population, 1996**

People under 65 years	NSW	Vic.	Qld	WA	SA	Tas.	ACT	NT	Australia
<b>Number</b>									
All people, 1993	5,263,891	3,931,729	2,771,385	1,506,918	1,267,291	413,799	279,130	164,371	<b>15,598,514</b>
All people, 1996	5,421,634	3,991,328	2,966,433	1,582,363	1,267,714	414,151	285,690	176,056	<b>16,105,369</b>
People with severe or profound handicap, 1993	119,400	92,200	72,300	34,400	30,400	9,700	6,900	2,900	<b>368,300</b>
People with severe or profound handicap, 1996	130,700	96,200	70,600	37,700	31,000	10,000	6,700	3,800	<b>386,800</b>
Indigenous factor	99.67	98.34	101.03	101.05	99.40	101.19	98.80	124.60	<b>100.00</b>
People with severe or profound handicap (adjusted)	130,300	94,600	71,400	38,100	30,800	10,100	6,600	4,800	<b>386,800</b>
<b>Percentage</b>									
All people, 1993	33.75	25.21	17.77	9.66	8.12	2.65	1.79	1.05	<b>100.0</b>
All people, 1996	33.66	24.78	18.42	9.83	7.87	2.57	1.77	1.09	<b>100.0</b>
People with severe or profound handicap, 1993	32.43	25.03	19.63	9.35	8.27	2.63	1.89	0.78	<b>100.0</b>
People with severe or profound handicap, 1996	33.80	24.88	18.26	9.75	8.01	2.59	1.72	0.99	<b>100.0</b>
People with severe or profound handicap (adjusted)	33.69	24.47	18.45	9.85	7.96	2.62	1.70	1.24	<b>100.00</b>

*Notes*

1. Estimates of 1,900 or less have a relative standard error of 50% or more. Estimates of 8,000 or less have a relative standard error of 25% or more.
2. Data for all people are ABS estimated resident populations at 30 June 1993 and 30 June 1996 for people aged under 65 years.
3. 1993 data for people with severe or profound handicap are estimates derived using the 1993 Survey of Disability, Ageing and Carers and are rounded to the nearest 100 people.
4. 1996 data for people with severe or profound handicap are 'expected' and were calculated using national age- and sex-specific prevalence rates obtained from the ABS 1993 Survey of Disability, Ageing and Carers, applied to the 1996 data for all people. These data are rounded to the nearest 100 people.
5. The Indigenous factors were calculated as shown in Table A4.2.
6. Data for people with severe or profound handicap (adjusted) were calculated by multiplying the people with severe or profound handicap data by the Indigenous factors. This adjusts for the effects of the Indigenous population.

*Source:* ABS 1994: Australian Demographic Statistics, March Quarter 1994. Cat. No. 3101.0; ABS 1997: Australian Demographic Statistics. 1996 Census Edition. Cat. No. 3101.0; AIHW analysis of the ABS 1993 Survey of Disability, Ageing and Carers; ABS 1997.

**Table 4.12: People aged under 65 years, number of people with severe or profound handicap, by State and Territory, calculation of potential population, with adjustment for Indigenous population, 2003**

People under 65 years	NSW	Vic.	Qld	WA	SA	Tas.	ACT	NT	Australia
<b>Number</b>									
All people, 1993	5,263,891	3,931,729	2,771,385	1,506,918	1,267,291	413,799	279,130	164,371	<b>15,598,514</b>
All people, 2003	5,775,675	4,154,396	3,377,515	1,752,380	1,314,030	420,752	309,235	188,403	<b>17,292,386</b>
People with severe or profound handicap, 1993	119,400	92,200	72,300	34,400	30,400	9,700	6,900	2,900	<b>368,300</b>
People with severe or profound handicap, 2003	144,600	104,200	83,900	43,400	33,500	10,700	7,400	4,400	<b>432,100</b>
Indigenous factor	99.67	98.34	101.03	101.05	99.40	101.19	98.80	124.60	<b>100.00</b>
People with severe or profound handicap (adjusted)	144,100	102,500	84,700	43,900	33,300	10,800	7,300	5,500	<b>432,100</b>
<b>Percentage</b>									
All people, 1993	33.75	25.21	17.77	9.66	8.12	2.65	1.79	1.05	<b>100.0</b>
All people, 2003	33.40	24.02	19.53	10.13	7.60	2.43	1.79	1.09	<b>100.0</b>
People with severe or profound handicap, 1993	32.43	25.03	19.63	9.35	8.27	2.63	1.89	0.78	<b>100.0</b>
People with severe or profound handicap, 2003	33.47	24.11	19.41	10.05	7.75	2.48	1.72	1.02	<b>100.0</b>
People with severe or profound handicap, 2003 (adjusted)	33.36	23.71	19.61	10.15	7.70	2.51	1.70	1.27	<b>100.00</b>

*Notes*

1. Estimates of 1,900 or less have a relative standard error of 50% or more. Estimates of 8,000 or less have a relative standard error of 25% or more.
2. Data for all people are ABS estimated resident populations at 30 June 1993 and 30 June 2003 for people aged under 65 years.
3. 1993 data for people with severe or profound handicap are estimates derived using the 1993 Survey of Disability, Ageing and Carers and are rounded to the nearest 100 people.
4. 2003 data for people with severe or profound handicap are 'expected' and were calculated using national age- and sex-specific prevalence rates obtained from the ABS 1993 Survey of Disability, Ageing and Carers, applied to the 2003 data for all people. These data are rounded to the nearest 100 people.
5. The Indigenous factors were calculated as shown in Table A4.2.
6. Data for people with severe or profound handicap (adjusted) were calculated by multiplying the people with severe or profound handicap data by the Indigenous factors. This adjusts for the effects of the Indigenous population.

Source: AIHW analysis of the ABS 1993 Survey of Disability, Ageing and Carers; ABS 1996a.

## **4.4 Carers and families**

Much has been written about families and changes in family structures and relationships. These changes and their future directions are clearly crucial to planning support services which complement long-term informal caring relationships. The value of informal care in Australia has already been discussed (Section 1.3), and that the crucial role of carers is increasingly being explicitly recognised in disability policy, for instance as a factor in the planning of day programs (Section 2.3) or just by recognising carer breakdown as a key ingredient in crises (Section 1.2).

### **Implications of growth projections**

The projected population growth and the growth estimates of people with a profound or severe handicap are expected to have significant impact on future availability of informal care. There are potentially countervailing effects. It appears that there will be an increase in the number of potential carers for elderly people in the late 1990s and early next century, since the number of people in the age group 45–64 is projected to be substantially higher than that in the age group 65 and over. However, population ageing is particularly strong in the working age population, and the increase of profound or severe handicap among both the working age population and the population aged 65 and over will further increase the need for carers.

### **Ageing carers**

The ageing of the carers themselves is a further issue. Table 4.13 presents the projected number of principal carers, aged 65 years or more, who are living in households with persons with a profound or severe handicap. According to the 1993 disability survey, there are about 7,700 parents aged 65 years and over who are the principal carers for their children with a profound or severe handicap and almost half of the parents had been in the caring role for over 30 years (Madden et al. 1996).

Based on the survey results, and allowing for population growth since then, the figure increases from 7,700 to 8,100 in 1996 and 9,000 in the year 2003. The figure of 9,000 should be considered to be an indicator of further unmet demand by the end of the next five years (in terms of Figure 1.1 an important indicator of current potential need for services).

**Table 4.13: Projected number of people with a profound or severe handicap who live in households with a usual resident principal carer aged 65 or more years ('000), by age of principal carer, by relationship of principal carer to the recipient<sup>(a)</sup>**

Age	Relationship of carer to the recipient			Total
	Parent	Other family	Friend	
<b>1993<sup>(b)</sup></b>				
5-14	—	—	—	—
15-29	1.5	—	—	1.5
30-44	3.2	—	—	3.2
45-64	3.0	5.6	0.6	9.2
65+	—	82.3	0.2	82.4
Total	7.7	87.9	0.8	96.4
<b>1996<sup>(c)</sup></b>				
5-14	—	—	—	—
15-29	1.5	—	—	1.5
30-44	3.3	—	—	3.3
45-64	3.3	6.2	0.7	10.1
65+	—	90.5	0.2	90.7
Total	8.1	96.7	0.9	105.6
<b>2003<sup>(c)</sup></b>				
5-14	—	—	—	—
15-29	1.5	—	—	1.5
30-44	3.5	—	—	3.5
45-64	4.0	7.6	0.8	12.4
65+	—	106.7	0.2	106.9
<b>Total</b>	<b>9.1</b>	<b>114.3</b>	<b>1.0</b>	<b>124.4</b>

(a) Estimates of 1,900 or less have a relative standard error (RSE) of 50% or more. Estimates of 8,000 or less have an RSE of 25% or more. These estimates should be interpreted accordingly.

(b) Estimate based on the ABS 1993 Survey of Disability, Ageing and Carers data.

(c) Estimate based on the projected number of people with a profound or severe handicap who live in households.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data; ABS 1997.

## Family trends

The evolution of the Australian family in recent decades and the implications for welfare services are discussed in the Institute's most recent biennial report *Australia's Welfare* (AIHW 1997a:55-95).

A fundamental change in Australian families has been the steady move away from the 'male breadwinner' model of the family, with the implication that we can no longer assume the full-time (and life long) availability of female carers. The adjustment of social institutions to this change has been variable:

In all advanced countries, however, institutions more related to family and parenthood have been much slower to move away from the presumption of a male breadwinner model of the family and to adapt to the new reality of advancing gender equity. With some exceptions, the delivery of publicly provided welfare services is still premised upon the male breadwinner model, that is, upon the assumption that women will be available as full-time carers. (AIHW 1997a:59)

A rise in the proportion of sole parent families is projected to continue. Delayed child bearing will continue, with longer gaps between the generations resulting in the likelihood of more, older 'principal carers'. Younger people overall are tending to stay longer with their parents before setting up independent living arrangements, for a range of reasons including longer education years, high youth unemployment and the high cost of housing.

The ageing of the population generally will place pressure on Home and Community Care services, adding to the pressure on CSDA services, which provide similar services to a related and sometimes overlapping client group (Table 1.5 and Section 2.4).

The discussion concluded that:

As family arrangements become more complex and family income circumstances more variable, the arguments are strong that formal and informal systems of support need to be integrated into a single system of support, rather than being regarded as separate systems. This is even more the case when one of the central frameworks of policy is the deinstitutionalisation of those who are dependent upon aged care services, psychiatric services and disability services. The role of public support for families is to strengthen the families, not to weaken them. (AIHW 1997a:89–90)

## 4.5 De-institutionalisation

Living in community settings is an important goal of people with a disability, and de-institutionalisation has also been a goal of most governments responsible for the accommodation of people with a disability (see, for instance, AIHW 1993:270–279).

Available data provide evidence that de-institutionalisation has been occurring among people with a disability (AIHW 1997a:335–336). The 1981, 1988 and 1993 ABS disability surveys indicate that the number and percentage of people aged under 65 years with a 'severe handicap',<sup>8</sup> or any disability, who live in households have risen, while the number and percentage of those who live in establishments have declined (Tables 4.14 and 4.15).

**Table 4.14: Number of people with a profound or severe handicap aged 5–64 years by residence ('000), Australia, 1981, 1988 and 1993**

	Number with profound or severe handicap			% changes in numbers		
	1981	1988	1993	1981–1988	1988–1993	1981–1993
Households	244.1	302.5	349.1	23.9	15.4	42.9
Establishments <sup>(a)</sup>	27.0	24.2	19.2	–10.5	–20.8	–29.1

(a) Establishments are defined by ABS as hospitals, nursing homes, hostels, retirement villages and other 'homes'.

Source: ABS unpublished data; AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers Confidentialised Unit Record File.

<sup>8</sup> In the 1993 disability survey the severe handicap category was further divided into severe handicap and profound handicap. Therefore, the category of severe handicap for 1993 refers to either severe or profound handicap.

Among people aged under 65 years, the number of people with a severe or profound handicap living in households has increased by 42.9%, or 104,900 people between 1981 and 1993. In contrast, the number of people living in establishments has dropped by 29.1%, or 7,900 people (Table 4.14).

**Table 4.15: People with a disability aged under 65 years: type of residence by age as a percentage of the Australian population at that age, Australia, 1981, 1988 and 1993<sup>(a)</sup>**

Residence	Aged under 30 years			Aged under 30–64 years		
	Severe <sup>(b)</sup>	Total with a handicap	Total with a disability	Severe <sup>(b)</sup>	Total with a handicap	Total with a disability
<b>Households</b>						
1981	1.1	3.1	5.6	2.9	9.0	14.9
1988	1.5	5.0	6.3	2.9	13.2	15.9
1993	2.0	5.1	6.7	3.1	12.7	16.8
<b>Establishments<sup>(c)</sup></b>						
1981	0.2	0.2	0.2	0.3	0.3	0.3
1988	0.1	0.1	0.1	0.2	0.3	0.3
1993	0.1	0.1	0.1	0.2	0.2	0.3
<b>Total population</b>						
1981	1.3	3.3	5.8	3.1	9.3	15.2
1988	1.7	5.1	6.4	3.2	13.5	16.2
1993	2.1	5.2	6.8	3.3	13.0	17.0
<b>Ratio: establishments/households*100<sup>(d)</sup></b>						
1981	15.9	5.1	2.9	9.2	3.2	2.1
1988	7.8	2.2	1.8	7.9	2.0	1.9
1993	3.1	1.2	1.3	6.3	1.8	1.6

(a) The percentages of disability and handicap have been standardised using the age and sex structures of the estimated resident population at March 1993 for comparative purposes. The estimates for the 1993 disability survey data were made using definitions as close as possible to the definitions of the 1981 and 1988 disability surveys.

(b) In the 1993 disability survey the severe handicap category was further divided into severe handicap and profound handicap. Therefore, the category of severe handicap for 1993 refers to either severe or profound handicap.

(c) Establishments are defined by ABS as hospitals, nursing homes, hostels, retirement villages and other 'homes'.

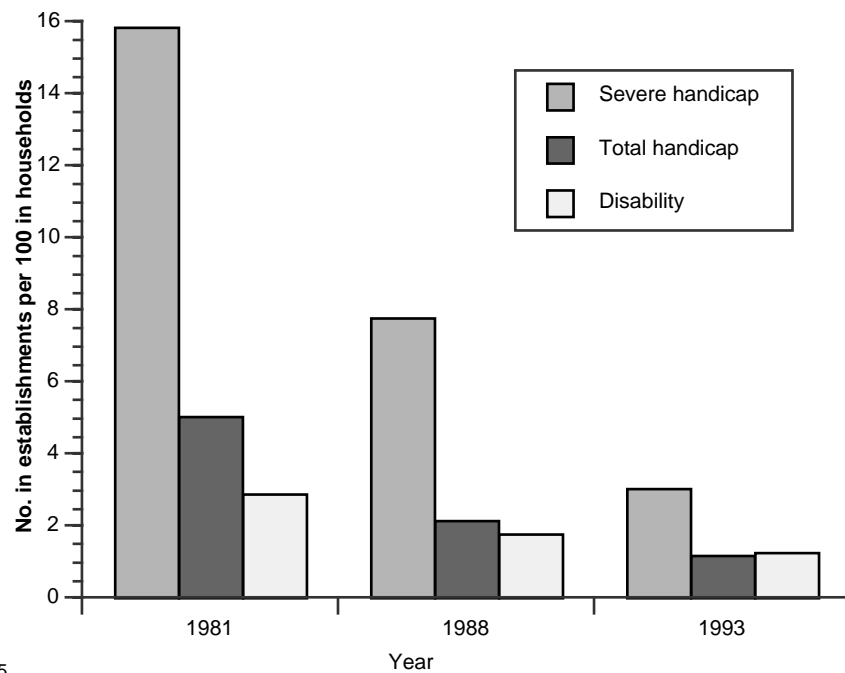
(d) Ratios were calculated by dividing the total number of people living in establishments by the total number of people living in households and multiplying by 100.

Source: ABS unpublished data; AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers Confidentialised Unit Record File.

This trend is even clearer when the ratio of people in 'establishments' to people in households is calculated and particularly for people under the age of 30 years (Figures 4.1 and 4.2). In 1981 there were, on average, 15.9 people aged under 30 years with a severe handicap living in establishments for every 100 living in households. By 1993 this ratio had dropped to 3.1 for every 100 (Table 4.15, Figure 4.1).

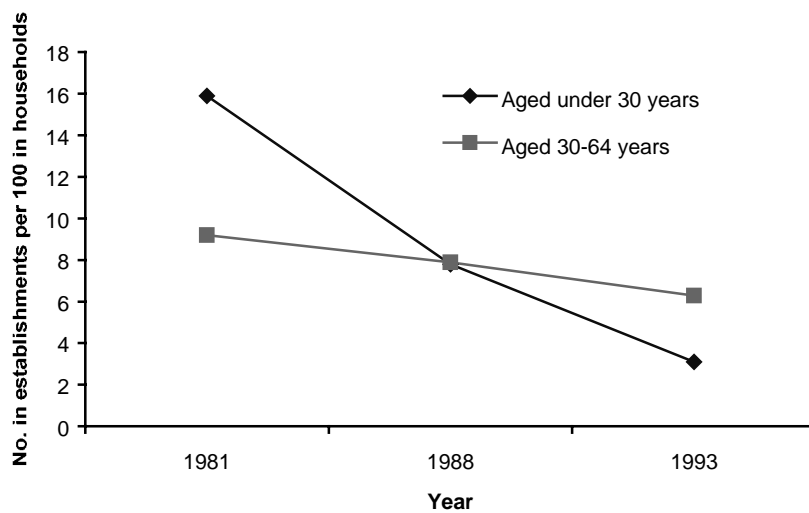
The majority of people with a severe handicap aged under 65 years were living with relatives in 1993. Most of the change since 1981 has been an increase in the proportion living with relatives; people who at one time were living in institutions are tending to live with relatives rather than in other arrangements (AIHW 1997a:336).

These trends confirm the assumptions made in Chapters 2 and 3, that growth in demand for disability support services is unlikely to be met through the expansion of institutions. The trends also show clearly the importance of programs to support carers and the stability of living and caring arrangements.



Source: Table 4.15.

**Figure 4.1: People with a disability under age 30 years: ratio of people living in establishments to people living in households**



Source: Table 4.15.

**Figure 4.2: People with a severe or profound handicap under age 65 years: ratio of people living in establishments to people living in households**

The 'health establishments' in which people were living in 1993 are shown in Table 4.16. Almost 7,000 people aged under 65 were in psychiatric hospitals, close to 5,000 in homes for the aged and over 5,000 in 'other homes'. None of these people have been included in the estimates of unmet demand, and although their numbers have

probably continued to fall since 1993, many could be awaiting community accommodation.

**Table 4.16: People with a profound or severe handicap by type of establishment ('000), by age, Australia, 1993<sup>(a)</sup>**

	5-29	30-49	50-64	65+	Total < 50	Total < 65
General hospitals	0.4	0.7	0.8	13.4	1.1	1.8
Psychiatric hospitals	1.7	3.2	2.1	7.7	4.8	6.9
Homes for the aged	0.6	0.9	3.2	60.8	1.5	4.7
Homes — other	1.5	2.7	0.8	2.6	4.3	5.0
Retirement villages	0.1	0.04	0.6	20.0	0.1	0.7
Total establishments	4.2	7.5	7.4	104.6	11.7	19.2

(a) Estimates of 1,900 or less have a relative standard error (RSE) of 50% or more. Estimates of 8,000 or less have an RSE of 25% or more. These estimates should be interpreted accordingly.

Source: AIHW analysis of ABS 1993 Survey of Disability, Ageing and Carers data.

## 4.6 Growth estimates and trends: overview

This chapter indicates that demographic changes, along with changes in other factors, will have considerable impact on the growth in demand for disability support services in the next six years.

The ageing of the Australian population is projected to continue. The working age population will be ageing significantly, with greatest growth among the population aged 45–64 years, from 3.7 million in 1995 to 4.7 million in 2003.

The projected demographic trends, particularly the population ageing, result in a substantial increase in the projected number of people with a profound or severe handicap in the next six years (1997–2003):

- The total number of Australians with a severe or profound handicap is projected to increase by 13.7% (109,200 people).
- The overall growth is mainly attributable to the rapid increase in the age groups of 45–64 years (19.5% or 32,600 people) and 65 years and over (17.3% or 70,200 people).
- The increase in the age group of 5–64 years is 9.9% (39,100 people).
- The growth in the working age population (age 15–64) is 11.3% (37,200 people).
- The projected population decline in the age group of 15–24 years results in a negative growth rate in the number of people with severe or profound handicap in the age group of 20–29 years.

Between 1997 and 2003, and corresponding to the projected population growth, the estimated overall growth in different disability groups is mainly due to the rapid increases in the population age groups of 45–64 years and 65 years and over. Nevertheless, the sizes of the increase vary among different disability groups aged 5–64 years. The projected growth rates in the numbers of people in hearing (12.0%), circulatory (15.2%) and arthritis (16.0%) disability groups are higher than the overall growth rate (9.9%) of people with a profound or severe handicap in this age group. The higher growth rates of these disability groups is probably related to the higher growth rates in the older age groups, 45–64 years. In contrast, the growth rates of



intellectual (5.0%), speech (4.9%) and learning (3.4%) disability groups are lower than the overall growth rate of people with a severe or profound handicap.

The number of females aged 5–64 years with severe or profound handicap is projected to remain higher than the number of males. Among people under the age of 65 years, the numbers for males are higher than those for females in the disability groups of intellectual, acquired brain injury, visual, hearing, speech, and 'other musculoskeletal'.

The projected demographic trends also indicate the following future impacts of the ageing population:

- The high projected rates of increase in the number of people with a severe or profound handicap aged 45 years and over is likely to result in ageing of the client population of disability support services. The high growth in numbers of people aged 45–64 years will bring particular pressure on CSDA services, either to provide services to an increasingly older clientele, or to make transitional arrangements between CSDA services and suitable aged care services.
- The increase in the number of people with a profound or severe handicap among both the working age population and people aged 65 years and over will further increase the need for carers.
- The ageing of carers is likely to continue to be an important issue. The number of parents aged 65 years and over who are the principal carers for people with a profound or severe handicap is projected to increase from 7,700 in 1993 to 9,000 in the year 2003.

Taken together, the projected growth in the target group for CSDA services, detailed in Sections 4.2 and 4.3, and the trends in families and carers outlined in Section 4.3, suggest:

- further pressure on CSDA services, in particular because of ageing of the target group and their carers and families;
- pressure on related services such as HACC;
- pressure on families and services from ongoing trends in de-institutionalisation; and
- continuing mutual support among family members, in various patterns and relationships, which require formal assistance where the family support is likely to be intense and long-term.