

DISABILITY

AUSTRALIA

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- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Ken Black on Canberra (02) 6252 7430.

NOTES

ABOUT THIS PUBLICATION This publication contains preliminary results on disability from the 2003 Survey of Disability, Ageing and Carers. Final and more comprehensive results are expected to be published in September 2004 in *Disability, Ageing and Carers: Summary of Findings, Australia, 2003* (cat. no 4430.0).

The statistics shown in this publication provide a summary of disability prevalence in Australia. As the results are preliminary they may be subject to change as further processing of the data is undertaken.

ROUNDING As estimates have been rounded, discrepancies may occur between sums of the component items and totals.

INTERPRETATION OF RESULTS As the estimates in this publication are based on a sample, differences over time and between sub-populations may or may not be statistically significant. That is, for some of the statistics presented in this publication that may be different for different sub-populations or time periods presented, the size of the associated sampling errors means that it cannot be stated with any confidence that the estimates represent any real difference between the sub-populations or time periods. For further information on sampling error see the Technical note at the end of this publication. Standard errors for the original estimates contained in this publication are in tables T1, T2, T3 and T4 of the Technical note.

Changes in the proportion of the population in cared accommodation between 1998 and 2003 may have had an impact on disability status, particularly for older age groups. For further information on this issue and other factors that may affect interpretation of results see paragraphs 37-44 of the Explanatory Notes on page 12.

ACKNOWLEDGMENTS ABS surveys draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics ACT 1905*.



ABBREVIATIONS

- ABS Australian Bureau of Statistics
- ABSCQ Australian Bureau of Statistics Classification of Qualifications
- ASCED Australian Standard Classification of Education
- CURF Confidentialised Unit Record File
- ICD-10 International Classification of Diseases 10th Revision
- RSE relative standard error
- SDAC Survey of Disability, Ageing and Carers
- SE standard error

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SUMMARY OF FINDINGS

INTRODUCTION

This publication focuses on preliminary results relating to disability from the 2003 Survey of Disability, Ageing and Carers (SDAC). Final survey data, with more detail and a wider range of variables is expected to be released in September 2004. The publication also includes some comparisons with results from the previous survey in 1998.

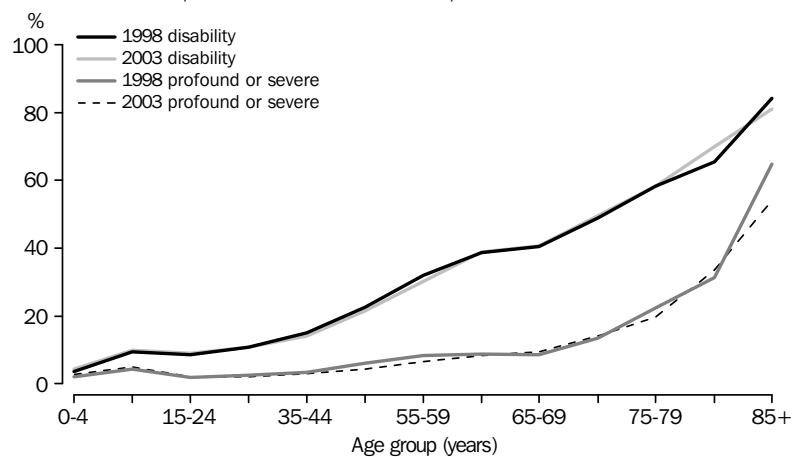
DISABILITY RATES

The 2003 SDAC estimates that one in five Australians (3,951,000 or 20%) had a disability. This rate was the same for males and females. The rate increased with age, reaching 81% for those aged 85 years and over. The age-standardised disability rates for total males, females and persons showed little change between 1998 and 2003 and the pattern across age groups was very similar in these two years.

The 2003 SDAC found that one in seventeen people (5.9%) had a profound or severe level of core activity limitation (i.e. they needed help with one or more self-care, mobility or communication activities), a slightly smaller proportion than in 1998 (6.4%). However, the rate for persons aged 85 years and over dropped more substantially, from 65% in 1998 to 54% in 2003, with the decrease more marked for males than females.

The pattern of prevalence of profound or severe level of core activity limitation differed across age groups from that of the overall disability population. There was a gradual increase in the rate for age groups 0–4 years (2.8%) through to 65–69 years (9.4%) but it then increased sharply to 54% of those aged 85 years and over. This contrasted with the overall disability rate which increased steadily from 4% of 0–4 year olds to 41% of 65–69 year olds and 81% of those aged 85 years and over.

ALL PERSONS, DISABILITY STATUS, 1998 AND 2003



EDUCATION

People with a disability were less likely to have completed a higher educational qualification than those without a disability. In 2003, one in five people aged 15–64 years living in households who had no disability had completed a bachelor degree or higher, compared to one in eight people (13%) with a disability.

SUMMARY OF FINDINGS *continued*

EMPLOYMENT

Employment-related findings, for people aged 15–64 years living in households, from the 2003 SDAC include:

- those with a profound level of core activity limitation had a much lower labour force participation rate (15%) than people without a disability (81%)
- people with a disability had a higher unemployment rate (8.6%) than those without a disability (5.0%)
- people with a disability who were employed were more likely to work in a part-time job (37%) than those who were employed and did not have a disability (29%).

ALL PERSONS(a)(b), Disability rates—1998 and 2003

Age group (years)	1998			2003		
	Males	Females	Persons	Males	Females	Persons
	%	%	%	%	%	%
0-4	4.6	2.8	3.7	4.7	3.9	4.3
5-14	12.1	6.7	9.5	12.4	7.5	10.0
15-24	9.5	7.7	8.6	8.9	9.0	9.0
25-34	11.5	9.8	10.7	11.7	9.7	10.7
35-44	15.7	14.6	15.1	14.5	13.9	14.2
45-54	22.3	22.8	22.6	21.6	21.5	21.6
55-59	31.7	32.3	32.0	28.7	31.9	30.3
60-64	42.0	35.5	38.7	40.6	37.1	38.9
65-69	43.4	37.6	40.4	42.6	38.6	40.6
70-74	51.1	47.3	49.0	49.4	49.7	49.6
75-79	60.9	56.6	58.4	59.9	57.2	58.4
80-84	63.4	66.8	65.5	72.8	67.9	70.0
85 and over	84.3	84.2	84.2	79.0	81.8	81.0
Total	19.6	19.1	19.3	19.8	20.0	19.9
Total, age standardised^(c)	20.3	19.3	19.9	19.8	20.0	19.9
Total persons with a disability ('000)	1 821.1	1 789.2	3 610.3	1 956.3	1 994.6	3 951.0

- (a) Refer to Table 3 for total number of persons in each age category.
- (b) Differences over time and between sub-populations may or may not be statistically significant. For example, the difference between the age-standardised 1998 and the 2003 total males disability rates (20.3 and 19.8 respectively) is not statistically significant. For further detail refer to the Technical note.
- (c) 1998 and 2003 SDAC data age standardised to the 2003 SDAC population age structure.

Age group (years)	1998			2003		
	Males	Females	Persons	Males	Females	Persons
	%	%	%	%	%	%
0-4	3.1	*1.3	2.2	3.2	2.4	2.8
5-14	5.7	3.1	4.4	6.4	3.3	4.9
15-24	2.1	1.7	1.9	2.1	1.9	2.0
25-34	2.5	2.5	2.5	2.1	2.1	2.1
35-44	3.0	4.0	3.5	2.7	3.2	3.0
45-54	5.5	6.7	6.1	3.7	5.0	4.4
55-59	8.8	7.9	8.4	5.6	7.5	6.5
60-64	8.3	9.3	8.8	7.4	9.2	8.3
65-69	7.8	9.2	8.5	8.9	10.0	9.4
70-74	11.8	15.0	13.5	11.5	16.7	14.2
75-79	19.0	24.9	22.3	17.9	21.4	19.8
80-84	24.3	35.6	31.3	25.4	39.1	33.5
85 and over	56.0	68.8	64.9	40.8	59.8	54.1
Total	5.4	6.7	6.1	5.1	6.7	5.9
Total, age standardised(d)	5.7	7.1	6.4	5.1	6.7	5.9
Total persons with a profound or severe core activity limitation ('000)	505.4	630.5	1 135.9	503.8	662.6	1 166.4

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) Refer to Table 3 for total number of persons in each age category.

(b) Differences over time and between sub-populations may or may not be statistically significant. For example, the difference between the age-standardised 1998 and the 2003 rates for total females with a profound or severe level of core activity limitation (7.1 and 6.7 respectively) is not statistically significant. For further detail refer to the Technical note.

(c) Core activities comprise communication, mobility and self care.

(d) 1998 and 2003 SDAC data age-standardised to the 2003 SDAC population age structure.

ALL PERSONS(a), Disability status by age

	Profound core activity limitation(b)	Severe core activity limitation(b)	Moderate core activity limitation(b)	Mild core activity limitation(b)	Schooling or employment restriction	All with specific restrictions or limitations(c)	All with disability(d)	No reported disability	Total
	'000	'000	'000	'000	'000	'000	'000	'000	'000
MALES									
0-4	14.5	*5.6	**1.0	—	..	21.1	29.7	608.0	637.6
5-14	38.3	49.0	*9.5	27.3	130.2	146.3	169.1	1 194.1	1 363.3
15-24	*13.4	17.0	*8.1	27.7	88.1	97.4	127.2	1 303.4	1 430.6
25-34	*11.3	20.5	20.8	34.4	121.0	131.3	174.2	1 310.9	1 485.1
35-44	*14.8	25.2	40.3	43.7	142.9	167.1	214.0	1 263.0	1 477.0
45-54	14.7	35.6	65.8	83.1	213.0	245.2	291.1	1 058.2	1 349.3
55-59	6.7	26.0	45.1	51.2	129.0	147.9	166.7	414.3	581.0
60-64	8.3	23.2	40.4	58.8	119.2	148.5	174.1	254.4	428.4
65-69	12.0	18.7	30.3	54.4	..	115.3	147.2	198.2	345.4
70-74	15.6	18.4	33.7	56.4	..	124.1	145.8	149.1	295.0
75-79	28.0	13.7	22.7	62.1	..	126.4	139.3	93.2	232.5
80-84	23.1	15.8	24.6	39.9	..	103.4	111.6	41.6	153.2
85 and over	25.2	9.1	9.1	21.5	..	64.9	66.3	17.7	84.0
Total	225.8	278.0	351.3	560.4	943.4	1 638.9	1 956.3	7 906.0	9 862.3
FEMALES									
0-4	*7.7	*6.9	**1.4	**0.6	..	16.7	23.8	582.1	605.9
5-14	18.8	23.3	*3.4	14.3	69.4	80.6	97.3	1 196.6	1 293.9
15-24	*10.7	15.0	15.8	26.9	75.3	90.1	124.1	1 252.5	1 376.6
25-34	9.4	21.1	12.1	31.1	90.0	106.6	142.0	1 327.5	1 469.5
35-44	8.3	39.0	39.7	51.1	141.4	172.2	206.0	1 274.0	1 480.0
45-54	24.2	43.6	75.4	83.0	209.8	255.7	290.2	1 057.7	1 347.9
55-59	16.6	25.6	48.0	57.8	129.7	162.1	179.7	383.4	563.0
60-64	13.5	25.3	42.8	50.7	100.2	142.9	157.0	266.1	423.1
65-69	19.0	16.5	34.5	43.1	..	113.0	137.4	218.8	356.2
70-74	25.4	29.1	43.3	47.1	..	144.9	162.7	164.4	327.1
75-79	40.2	22.8	34.9	57.9	..	155.7	168.7	126.1	294.8
80-84	56.5	28.9	20.4	37.1	..	142.9	148.2	70.0	218.1
85 and over	92.3	22.9	*19.0	21.7	..	155.8	157.6	35.0	192.5
Total	342.5	320.1	390.7	522.5	815.7	1 739.3	1 994.6	7 954.1	9 948.8
PERSONS									
0-4	22.3	*12.6	*2.4	**0.6	..	37.8	53.5	1 190.1	1 243.5
5-14	57.1	72.3	12.9	41.6	199.6	226.8	266.4	2 390.8	2 657.2
15-24	24.0	32.0	24.0	54.6	163.3	187.5	251.3	2 556.0	2 807.2
25-34	20.7	41.6	32.9	65.4	211.0	237.9	316.2	2 638.5	2 954.7
35-44	23.0	64.2	80.0	94.8	284.3	339.2	420.0	2 536.9	2 957.0
45-54	38.9	79.3	141.2	166.1	422.8	500.9	581.3	2 115.9	2 697.2
55-59	23.3	51.6	93.1	109.0	258.7	310.1	346.4	797.7	1 144.1
60-64	21.8	48.6	83.1	109.5	219.4	291.4	331.1	520.5	851.5
65-69	30.9	35.1	64.8	97.5	..	228.4	284.6	417.0	701.6
70-74	41.0	47.6	77.0	103.6	..	269.1	308.5	313.5	622.0
75-79	68.2	36.4	57.6	119.9	..	282.1	308.0	219.3	527.3
80-84	79.6	44.7	45.0	77.0	..	246.3	259.7	111.6	371.3
85 and over	117.5	32.0	28.1	43.2	..	220.7	223.9	52.6	276.5
Total	568.3	598.1	741.9	1 082.9	1 759.1	3 378.2	3 951.0	15 860.1	19 811.1

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

.. not applicable

— nil or rounded to zero (including null cells)

(a) Differences over time and between sub-populations may or may not be statistically significant. For further detail refer to the Technical note.

(b) Core activities comprise communication, mobility and self care.

(c) Total may be less than the sum of the components as persons may have both a core activity limitation and a schooling or employment restriction.

(d) Includes those who do not have a specific restriction or limitation.

	<i>Profound core activity limitation (b)</i>	<i>Severe core activity limitation (b)</i>	<i>Moderate core activity limitation (b)</i>	<i>Mild core activity limitation (b)</i>	<i>Schooling or employment restriction</i>	<i>All with specific restrictions or limitations (c)</i>	<i>All with disability (d)</i>	<i>No reported disability</i>	<i>Total</i>
	'000	'000	'000	'000	'000	'000	'000	'000	'000
Level of highest non-school qualification									
Postgraduate Degree	**1.4	*5.8	*4.6	*8.9	882.9	25.5	30.0	296.8	326.9
Graduate Diploma / Graduate Certificate	**0.6	12.6	*8.0	11.9	15.1	42.2	54.6	254.9	309.5
Bachelor Degree	13.6	21.9	34.9	47.7	1 559.5	145.3	195.5	1 638.8	1 834.3
Advanced Diploma / Diploma	*3.9	16.9	25.9	38.8	357.3	110.9	149.5	926.6	1 076.0
Certificate III / IV	17.6	57.2	99.4	146.8	262.9	404.2	485.9	2 165.8	2 651.6
Certificate I / II	*2.9	*7.3	10.6	9.8	620.2	37.0	44.6	195.7	240.3
Certificate not further defined	*3.0	*6.3	10.8	*9.3	80.2	34.2	40.9	223.0	263.9
No non-school qualification	95.1	183.4	255.5	320.5	700.4	1 031.2	1 200.0	5 372.5	6 572.5
Level not determined	**0.2	*3.5	*4.4	*5.3	859.1	19.8	27.4	90.8	118.2
Labour force status									
Employed full-time	*8.3	45.1	125.7	173.0	18.7	478.7	686.7	6 055.1	6 741.8
Employed part-time	9.1	48.1	77.9	106.7	34.3	316.7	397.5	2 490.5	2 888.0
<i>Total employed</i>	17.5	93.2	203.6	279.8	114.6	795.4	1 084.2	8 545.6	9 629.8
Unemployed	**3.0	*10.7	16.7	23.6	90.2	87.9	101.5	450.7	552.1
<i>Total in the labour force</i>	20.4	103.9	220.3	303.3	343.7	883.4	1 185.7	8 996.3	10 182.0
Not in the labour force	117.9	211.0	233.8	295.6	31.4	967.0	1 042.7	2 168.5	3 211.2
Total	138.3	314.9	454.1	598.9	28.7	1 850.3	2 228.3	11 164.9	13 393.2
Unemployment rate (%)	**14.5	*10.3	7.6	7.8	11.5	10.0	8.6	5.0	5.4
Participation rate (%)	14.8	33.0	48.5	50.6	39.8	47.7	53.2	80.6	76.0

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Differences over time and between sub-populations may or may not be statistically significant. For further detail refer to the Technical note.

(b) Core activities comprise communication, mobility and self care.

(c) Total may be less than the sum of the components as persons may have both a core activity limitation and a schooling or employment restriction.

(d) Includes those who do not have a specific restriction or limitation.

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains preliminary results from the 2003 Survey of Disability, Ageing and Carers (SDAC) conducted throughout Australia from 23 June to 1 November 2003.

SCOPE OF THE SURVEY

2 The survey covered people in both urban and rural areas in all states and territories, except for those living in remote and sparsely-settled parts of Australia.

3 The survey included people in both private and non-private dwellings, including people in cared accommodation but excluding those in gaols and correctional institutions.

4 The scope of the survey was all persons except:

- visitors to private dwellings
- certain diplomatic personnel of overseas governments, customarily excluded from the Census and estimated resident population figures
- overseas residents in Australia
- members of non-Australian defence forces (and their dependants) stationed in Australia.

5 Coverage rules were applied which aimed to ensure that each person in scope was associated with only one dwelling and thus had only one chance of selection.

6 Usual residents of selected private dwellings were included in the survey unless they were away on the night of enumeration, and had been away or were likely to be away for four months or more. This was designed to avoid multiple selection of a person who might be spending time, for instance, in a nursing home, and be eligible for selection there.

7 Visitors to private dwellings were excluded as the expectation was that most would have their chance of selection at their usual residence.

8 Boarding school pupils were excluded from coverage but other persons in non-private dwellings in the scope of the survey were included if they had lived there, or were likely to live there, for four months or more.

9 Occupants of cared accommodation in the scope of the survey were included if they had been, or were expected to be, a usual resident of an establishment for three months or more.

DATA COLLECTION

10 Different data collection methods were used for the household component and the cared-accommodation component of this survey.

11 The household component covered people in:

- private dwellings such as houses, flats, home units, townhouses, tents and other structures used as private places of residence at the time of the survey
- non-private dwellings such as hotels, motels, boarding houses, educational and religious institutions, guest houses, construction camps, short-term caravan parks, youth camps and camping grounds, including staff quarters, and self-care components of retirement villages.

12 Smaller disability group homes (with fewer than six people) were considered to be private dwellings.

13 In this publication, people in the household component of the survey are referred to as 'living in households'.

14 The cared-accommodation component covered residents of hospitals, nursing homes, hostels and other homes such as children's homes, who had been, or were expected to be, living there or in another health establishment for at least three months.

Household component

15 Data for the household component of the survey were collected by trained interviewers, who conducted computer-assisted personal interviews.

EXPLANATORY NOTES *continued*

Household component continued

16 A series of screening questions were asked of a responsible adult in a selected household to establish whether the household included:

- people with a disability
- people aged 60 years or more
- people who were primary carers for older people and/or people with a disability, living either in the same household or elsewhere, or who provided any care to persons living elsewhere.

17 Where possible, a personal interview was conducted with people identified in any of the above populations. Proxy interviews were conducted for children under 15, those aged 15–17 whose parents did not permit them to be personally interviewed, and those with a disability that prevented them from having a personal interview.

18 People with a disability were asked questions relating to help and assistance needed and received for self-care, mobility, communication, cognitive and emotional support, health care, housework, property maintenance, meal preparation, paperwork (reading and writing tasks) and transport activities. Those aged 5–20 years (or their proxies) were asked about schooling restrictions, and those aged 15–64 years about employment restrictions.

Cared-accommodation component

19 The cared-accommodation component was enumerated in two stages using a mail-based methodology directed to administrators of selected establishments.

20 The first stage required completion of a Contact Information Form to establish the name of a contact officer, the current number of occupants within the establishment and the type of establishment.

21 The second stage required the nominated contact officer to select occupants, following the instructions provided. A separate questionnaire was completed for each person meeting the coverage requirements.

22 The range of data collected in this component was smaller than in the household component as some topics were not suitable for collection through a mail-based methodology or were irrelevant to those residing in cared accommodation.

SURVEY DESIGN

Sample size and collection

23 Multi-stage sampling techniques were used to select the sample for the survey. After sample loss, the household sample included approximately 14,000 private dwellings and 300 non-private dwelling units, while the cared accommodation sample included approximately 550 establishments.

24 After exclusions due to scope and coverage, the final sample comprised 36,241 people for the household component and 5,145 people for the cared-accommodation component.

WEIGHTING, BENCHMARKING AND ESTIMATION

Weighting

25 Weighting is the process of adjusting results from a sample survey to infer results for the total population. To do this, a 'weight' is allocated to each sample unit. The weight is a value which indicates how many population units are represented by the sample unit.

26 The first step in calculating weights for each person was to assign an initial weight, which was equal to the inverse of the probability of being selected in the survey. For example, if the probability of a person being selected in the survey was 1 in 600, then the person would have an initial weight of 600 (that is, they represent 600 others).

Benchmarking

27 The weights were calibrated to align with independent estimates of the population of interest, referred to as 'benchmarks', in designated categories of sex by age by area of usual residence. Weights calibrated against population benchmarks compensate for over or under-enumeration of particular categories of persons and ensure that the survey

EXPLANATORY NOTES *continued*

Benchmarking continued

estimates conform to the independently estimated distribution of the population by age, sex and area of usual residence, rather than to the distribution within the sample itself.

28 The survey was benchmarked to the estimated population living in non-sparsely settled areas at 30 June 2003 based on results from the 2001 Census of Population and Housing. Hence the benchmarks relate only to persons living in private dwellings, and therefore do not (and are not intended to) match estimates of the total Australian resident population (which include persons living in non-private dwellings, such as hotels) obtained from other sources.

Estimation

29 Survey estimates of counts of persons are obtained by summing the weights of persons with the characteristic of interest. Estimates of non-person counts (e.g. days away from work) are obtained by multiplying the characteristic of interest with the weight of the reporting person and aggregating.

Standardisation

30 Some data for time series tables contained in this publication are shown as age-standardised estimates or percentages. Many disability characteristics are age-related and to enable comparisons over time or across population groups (e.g. between states) the age profile of the populations being compared needs to be considered. The age-standardised percentages are those which would have prevailed should the actual population have the standard age composition. In this publication the standard population is the 2003 SDAC population, i.e. the population at 30 June 2003 based on the 2001 Census of Population and Housing, adjusted for the scope of the survey. It should be noted that minor discrepancies in totals may occur between standardised and non-standardised estimates or percentages, as a result of the standardisation process.

RELIABILITY OF ESTIMATES

31 The estimates provided in this publication are subject to sampling and non-sampling error.

Sampling error

32 Sampling error is the difference between the published estimates, derived from a sample of persons, and the value that would have been produced if all persons in scope of the survey had been included. For more information refer to the Technical note.

Non-sampling error

33 Non-sampling error may occur in any collection, whether it is based on a sample or a full count such as a census. Sources of non-sampling error include non-response, errors in reporting by respondents or recording of answers by interviewers, and errors in coding and processing data.

34 Non-response occurs when people cannot or will not cooperate, or cannot be contacted. Non-response can affect the reliability of results and can introduce a bias. The magnitude of any bias depends upon the rate of non-response and the extent of the difference between non-respondents' characteristics and those of people who responded to the survey.

35 The following methods were adopted to reduce the level and impact of non-response:

- face-to-face interviews with respondents
- the use of interviewers who could speak languages other than English, where necessary
- follow-up of respondents if there was initially no response
- weighting to population benchmarks.

36 Every effort was made to reduce other non-sampling error to a minimum by careful design and testing of the questionnaire, training of interviewers and data-entry staff, and extensive editing and quality control procedures at all stages of data processing.

EXPLANATORY NOTES *continued*

INTERPRETATION OF RESULTS

37 Disability is a difficult concept to measure because it depends on a respondent's perception of their ability to perform a range of activities associated with daily living. Factors discussed below should also be considered when interpreting the estimates contained in this publication.

38 Information in the survey was based, wherever possible, on the personal response given by the respondent. However, in cases where information was provided by another person, some answers may differ from those the selected person would have provided. In particular, interpretation of the concepts of 'need' and 'difficulty' may be affected by the proxy-interview method.

39 A number of people may not have reported certain conditions because of:

- the sensitive nature of the condition (e.g. alcohol and drug-related conditions, schizophrenia, mental retardation or mental degeneration)
- the episodic or seasonal nature of the condition (e.g. asthma, epilepsy)
- a lack of awareness of the presence of the condition on the part of the person reporting (e.g. mild diabetes) or a lack of knowledge or understanding of the correct medical terminology for their condition, or
- the lack of comprehensive medical information kept by their cared-accommodation establishment.

40 As certain conditions may not have been reported, data collected from the survey may have underestimated the number of people with one or more disabilities.

41 The need for help may have been underestimated, as some people may not have admitted needing help because of such things as a desire to remain independent, or may not have realised help was needed with a task because help had always been received with that task.

42 The criteria by which people assessed whether they had difficulty performing tasks may have varied. Comparisons may have been made with the ability of others of a similar age, or with the respondent's own ability when younger.

43 The criteria used to identify disability and disability status has not changed between 1998 and 2003. To remove the effect of change in the age structures of the population at those times, age-standardised disability rates have been included in Tables 1 and 2.

44 There was a 24% decrease in the number of persons in cared accommodation between 1998 and 2003. The different collection methods used - personal interview for households, and administrator completed forms for cared accommodation - may have had some effect on the reporting of need for assistance with core activities. As a result there may have been some impact on measures such as disability status. If so, this would have had more impact on the older age groupings because of their increased likelihood of being in aged care accommodation.

SDAC PRODUCTS AND SERVICES

Publications

45 Further information about SDAC will be included in *Disability, Ageing and Carers: Summary of Findings, Australia, 2003* (cat. no. 4430.0) and *Disability, Ageing and Carers: User Guide, Australia, 2003* (cat. no. 4431.0), expected to be released in September and October 2004 respectively.

Microdata

46 It is expected that a Confidentialised Unit Record File (CURF) will be produced from the SDAC, subject to the approval of the Australian Statistician.

Special tabulations

47 As well as releasing publications and standard products, the ABS can make available special tabulations. As this publication contains preliminary data only, special tabulations will not be available until the release of the final estimates in September 2004. When available, and subject to confidentiality and sampling variability constraints, tabulations can be produced from the survey incorporating data items, populations and geographic

EXPLANATORY NOTES *continued*

Special tabulations continued areas selected to meet individual requirements. These can be provided in printed form, or in spreadsheets sent by email or on disk.

Other products **48** Further information on the survey and associated products is available from the contact officer listed at the front of this publication.

TECHNICAL NOTE

ESTIMATION PROCEDURES

1 Estimates of numbers of persons with particular characteristics were derived from the survey using a ratio estimation procedure which ensured that the survey estimates conform to an independently estimated distribution of the total population by age, sex and area. The benchmark for persons was the estimated resident population for 30 June 2003. The benchmark population included special dwellings and Australian defence force personnel, but excluded people from remote and sparsely settled areas of Australia.

2 The responses from persons in the cared-accommodation component and persons in the household component of the survey were weighted together, using factors to account for the different sampling fractions, in order to represent the entire Australian population.

3 The post-stratification weighting for person estimation used the variables:

- state or territory
- part of state — capital city or balance of state (Australian Capital Territory and Northern Territory are not split)
- age group (0–4, 5–9, ... 75–79, 80–84, 85+)
- sex (male or female).

RELIABILITY OF ESTIMATES

4 Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability, that is, they may differ from those that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 that the difference will be less than two SEs. Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

5 The size of the SE increases with the level of the estimate, so that the larger the estimate the larger is the SE. However, it should be noted that the larger the sample estimate the smaller will be the SE in percentage terms (that is, the RSE). Thus, larger estimates will be relatively more reliable than smaller estimates. In the tables in this publication, only estimates with RSEs of 25% or less, and percentages based on such estimates, are considered sufficiently reliable for most purposes. However, estimates and percentages with RSEs between 25% and 50% have been included and are preceded by an asterisk (e.g. *3.4) to indicate that they are subject to high SEs and should be used with caution. Estimates with RSEs greater than 50% are also included and are preceded by a double asterisk (e.g. **0.1). Such estimates are considered too unreliable for general use.

CALCULATION OF STANDARD ERRORS

Standard error of an estimate

6 Included in this publication are tables which present an approximate SE for each estimate in the publication. Tables T1 to T4 below repeat the layout of the publication tables but rather than survey estimates, they contain estimates of the SEs or RSEs. For example, from Table 3 we see that 598,100 persons had a severe core activity limitation. Table T3 indicates that the standard error for this estimate is 21,990 (3.7%).

7 Therefore, there are about two chances in three that the actual number of persons with a core activity limitation was within the range 576,110 to 620,090 and about 19 chances in 20 that it was within the range 554,120 to 642,080.

TECHNICAL NOTE *continued*

Standard error of a proportion

8 Proportions and percentages formed from the ratio of two estimates are also subject to sampling error. The size of the error depends on the accuracy of both the numerator and the denominator. The formula for the RSE of a proportion or percentage is :

$$RSE\left(\frac{x}{y}\right) = \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

9 In using the formula, the numerator and the denominator will be estimates over subsets of the population. The formula is only valid when the set for the numerator is a subset of the set for the denominator.

10 The SE of an estimated percentage or rate, computed by using sample data for both numerator and denominator, depends on both the size of the numerator and the size of the denominator. However, the RSE of the estimated percentage or rate will generally be lower than the RSE of the estimate of the numerator.

11 An example from Table 3 is the proportion of persons with a disability who had a severe level of core activity limitation, 15%. The numerator, the number of persons with a severe level of core activity limitation, is 598,100. The denominator, the number of persons with a disability, is 3,951,000.

SE for 598,100 = 21,990 or 3.7% RSE

SE for 3,951,000 = 48,532 or 1.2% RSE

The difference of the RSE squares = 12.25

The square root of the difference is 3.5%, the RSE of the proportion.

Standard error of a difference

12 Published estimates may also be used to calculate the difference between two survey estimates (numbers or percentages). The difference between two survey estimates is itself an estimate and is therefore subject to sampling error. The SE of the difference between two survey estimates depends on the SEs of the original estimates and on the relationship (correlation) between the two original estimates. An approximate SE of the difference between two estimates ($x-y$) may be calculated using the following formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

13 While this formula will only be exact for differences between separate and uncorrelated (unrelated) characteristics or sub-populations, it is expected to provide a good enough approximation for all of the differences likely to be of interest.

TECHNICAL NOTE *continued*

STANDARD ERROR TABLES

T1 RELATIVE STANDARD ERRORS FOR TABLE 1

Age group (years)	1998			2003		
	Males	Females	Persons	Males	Females	Persons
	%	%	%	%	%	%
0-4	12.0	16.7	9.2	11.3	16.9	9.6
5-14	4.2	6.3	3.2	5.7	8.3	4.8
15-24	4.8	5.7	3.3	8.3	8.6	6.0
25-34	4.1	4.6	2.8	5.2	6.7	4.5
35-44	3.3	3.5	2.2	4.5	5.9	3.8
45-54	2.8	2.8	3.3	4.3	3.5	3.0
55-59	4.2	4.2	2.5	5.4	4.2	3.7
60-64	3.7	4.2	2.0	4.7	4.3	3.3
65-69	3.8	4.2	1.8	4.6	5.3	3.5
70-74	3.5	3.5	0.2	3.9	3.9	2.3
75-79	3.5	3.3	2.2	4.8	3.3	3.3
80-84	4.7	3.3	2.5	2.8	3.0	1.9
85 and over	3.6	2.1	1.8	3.1	2.6	2.0
Total	0.8	0.9	0.5	1.4	1.4	1.2
Total, age standardised	1.2	1.5	0.8	1.4	1.4	1.2

T2 RELATIVE STANDARD ERRORS FOR TABLE 2

Age group (years)	1998			2003		
	Males	Females	Persons	Males	Females	Persons
	%	%	%	%	%	%
0-4	15.4	27.1	12.8	14.4	23.5	12.6
5-14	6.7	10.4	5.2	9.7	12.9	8.3
15-24	12.5	14.6	8.8	16.0	16.2	12.7
25-34	11.1	11.1	7.1	15.3	12.8	9.9
35-44	9.7	8.1	5.8	12.5	10.7	10.0
45-54	7.2	6.5	4.5	10.6	9.6	7.4
55-59	10.3	11.2	6.8	14.3	11.4	8.7
60-64	12.0	11.1	7.3	13.8	11.7	8.1
65-69	13.1	11.6	7.7	15.2	12.2	8.0
70-74	11.1	8.6	5.8	9.1	9.7	6.5
75-79	10.1	6.8	5.3	10.2	8.4	6.5
80-84	12.0	6.5	5.4	10.9	6.3	5.3
85 and over	7.7	3.4	3.0	4.0	6.3	4.6
Total	3.7	2.8	1.2	3.4	3.0	2.5
Total, age standardised	4.3	3.7	1.5	3.4	3.0	2.5

TECHNICAL NOTE *continued*

T3 STANDARD ERRORS FOR TABLE 3

	<i>Profound core activity limitation</i>	<i>Severe core activity limitation</i>	<i>Moderate core activity limitation</i>	<i>Mild core activity limitation</i>	<i>Schooling or employment restriction</i>	<i>All with specific restrictions or limitations</i>	<i>All with disability</i>	<i>No reported disability</i>	<i>Total</i>
MALES									
0-4	2 604	1 763	713	—	..	2 916	3 366	3 366	—
5-14	5 423	5 973	2 436	4 019	8 902	9 101	9 584	8 863	2 603
15-24	3 366	3 709	2 512	4 212	8 602	8 751	10 577	11 539	6 133
25-34	3 255	3 674	3 048	5 298	7 933	8 168	9 081	9 081	—
35-44	3 759	3 625	4 768	5 538	8 519	8 669	9 715	9 715	—
45-54	2 703	4 383	6 898	7 329	10 155	11 222	12 491	12 491	—
55-59	1 673	3 809	5 551	5 268	7 418	8 849	9 079	9 158	652
60-64	2 057	3 389	4 475	5 525	8 464	9 056	8 264	8 400	652
65-69	2 981	3 109	5 061	5 750	..	6 668	6 765	6 943	890
70-74	2 719	2 545	3 747	5 162	..	5 420	5 654	5 823	890
75-79	3 683	2 770	4 033	5 752	..	6 533	6 679	6 776	658
80-84	2 679	3 020	2 885	5 044	..	4 432	3 931	4 175	3 198
85 and over	2 362	1 763	2 133	4 421	..	3 266	3 253	3 190	3 200
Total	13 127	12 690	15 271	15 716	23 942	24 848	28 339	28 606	8 308
FEMALES									
0-4	2 511	2 637	799	598	..	3 756	4 026	4 026	—
5-14	2 848	3 884	1 368	3 346	7 305	7 746	8 083	8 433	2 884
15-24	3 035	3 366	2 563	4 489	7 373	8 461	10 735	11 971	4 366
25-34	2 295	3 859	2 696	4 470	7 228	7 857	9 560	9 560	—
35-44	1 950	4 255	4 684	5 283	10 920	11 188	12 104	12 104	—
45-54	3 909	4 573	5 858	7 209	9 749	10 925	10 097	10 097	—
55-59	2 533	3 916	5 984	7 413	7 153	8 489	7 487	7 487	—
60-64	3 372	3 307	4 137	5 040	7 626	6 671	6 680	6 680	—
65-69	2 891	3 352	4 665	4 815	..	7 491	7 285	7 285	—
70-74	3 277	4 734	4 557	5 442	..	5 532	6 354	6 354	—
75-79	4 710	3 706	4 129	5 138	..	6 003	5 603	5 593	611
80-84	4 088	5 243	2 976	3 892	..	4 530	4 527	4 574	620
85 and over	7 352	2 577	6 318	4 329	..	4 216	4 088	4 023	515
Total	14 734	15 678	18 079	17 367	19 909	25 070	28 323	31 824	7 241
PERSONS									
0-4	3 861	3 286	1 038	598	..	4 512	5 119	5 119	—
5-14	5 650	7 085	2 788	4 253	13 040	13 366	12 693	12 489	5 320
15-24	5 015	5 267	3 549	5 647	10 553	11 757	15 013	17 014	8 835
25-34	3 655	5 459	4 386	6 098	9 796	10 750	14 140	14 140	—
35-44	4 888	5 810	6 338	8 435	15 962	15 349	16 028	16 028	—
45-54	5 724	5 880	10 081	9 900	16 268	17 354	17 536	17 536	—
55-59	2 680	5 763	8 211	7 504	10 617	13 084	12 691	12 724	652
60-64	3 576	4 197	5 894	8 569	9 988	10 569	10 938	11 116	652
65-69	3 640	4 218	6 689	7 274	..	9 586	10 042	10 131	890
70-74	4 736	5 071	6 049	6 788	..	5 703	7 069	7 129	890
75-79	5 724	5 070	6 295	7 607	..	10 038	10 075	10 146	900
80-84	5 705	5 930	4 062	6 852	..	5 692	5 562	5 874	3 318
85 and over	7 531	3 360	7 289	6 136	..	4 826	5 123	5 367	3 150
Total	22 072	21 990	28 760	20 206	37 304	41 970	48 532	53 286	13 794

.. not applicable

— nil or rounded to zero (including null cells)

TECHNICAL NOTE *continued*

T4 STANDARD ERRORS FOR TABLE 4

	<i>Profound core activity limitation</i>	<i>Severe core activity limitation</i>	<i>Moderate core activity limitation</i>	<i>Mild core activity limitation</i>	<i>Schooling or employment restriction</i>	<i>All with specific restrictions or limitations</i>	<i>All with disability</i>	<i>No reported disability</i>	<i>Total</i>
Level of highest non-school qualification									
Postgraduate Degree	762	1 730	1 368	2 619	2 178	2 833	3 878	14 008	13 737
Graduate Diploma / Graduate Certificate	608	2 558	2 118	2 694	4 212	5 027	5 659	14 885	15 776
Bachelor Degree	3 281	4 227	5 504	6 228	7 599	10 564	12 993	35 782	37 891
Advanced Diploma / Diploma	1 827	3 274	4 326	4 723	6 450	7 303	11 162	26 253	29 892
Certificate III / IV	2 957	7 592	9 357	10 076	16 368	19 419	22 016	32 591	40 182
Certificate I / II	1 276	1 890	2 502	2 116	3 511	4 353	5 154	11 764	13 971
Certificate not further defined	1 451	2 014	2 127	2 602	3 995	4 577	5 726	10 821	12 506
No non-school qualification	8 847	11 592	14 865	13 323	23 477	26 380	30 986	41 360	49 868
Level not determined	209	1 441	1 649	1 583	3 246	3 619	4 058	7 520	8 492
Labour force status									
Employed full-time	2 575	4 708	8 209	8 662	14 110	16 410	20 541	49 020	50 137
Employed part-time	2 026	4 933	5 864	9 144	14 643	16 690	16 925	42 729	47 066
<i>Total employed</i>	3 090	7 147	10 149	14 115	20 832	25 624	29 666	39 032	46 794
Unemployed	1 521	3 294	3 580	4 368	7 647	8 308	9 360	21 499	23 371
<i>Total in the labour force</i>	3 559	8 589	10 792	16 597	22 557	27 975	32 925	42 505	45 942
Not in the labour force	9 611	13 437	13 273	10 775	27 057	27 892	27 554	32 817	44 668
Total	10 851	15 501	20 276	17 278	34 208	36 155	40 412	42 234	9 395

GLOSSARY

Australian Standard Classification of Education (ASCED)	The ASCED is the current national standard classification which includes all sectors of the Australian education system, that is, schools, vocational education and training, and higher education. From 2001, ASCED replaced a number of classifications used in administrative and statistical systems, including the ABS Classification of Qualifications (ABSCQ). The ASCED comprises two classifications: Level of Education and Field of Education. See <i>Australian Standard Classification of Education (ASCED), 2001</i> (cat. no. 1272.0).
Communication	This activity comprises the following tasks: <ul style="list-style-type: none">■ understanding family or friends■ being understood by family or friends■ understanding strangers■ being understood by strangers.
Core activities	Core activities are communication, mobility and self care.
Core activity limitation	<p>Four levels of core activity limitation are determined based on whether a person needs help, has difficulty, or uses aids or equipment with any of the core activities (communication, mobility or self care). A person's overall level of core activity limitation is determined by their highest level of limitation in these activities.</p> <p>The four levels of limitation are:</p> <ul style="list-style-type: none">■ profound: the person is unable to do, or always needs help with, a core activity task.■ severe: the person<ul style="list-style-type: none">■ sometimes needs help with a core activity task■ has difficulty understanding or being understood by family or friends, or■ can communicate more easily using sign language or other non-spoken forms of communication.■ moderate: the person needs no help but has difficulty with a core activity task.■ mild: the person needs no help and has no difficulty with any of the core activity tasks, but<ul style="list-style-type: none">■ uses aids and equipment■ cannot easily walk 200 metres■ cannot walk up and down stairs without a handrail■ cannot easily bend to pick up an object from the floor■ cannot use public transport■ can use public transport but needs help or supervision, or■ needs no help or supervision but has difficulty using public transport.
Disability	In the context of health experience, the International Classification of Functioning, Disability and Health (ICF) defines disability as an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environment and personal factors).

GLOSSARY *continued*

Disability <i>continued</i>	<p>Persons are considered to have a disability if they have a limitation, restriction or impairment, which has lasted, or is likely to last, for at least six months and restricts everyday activities. This includes:</p> <ul style="list-style-type: none">■ loss of sight (not corrected by glasses or contact lenses)■ loss of hearing where communication is restricted, or, an aid to assist with or substitute for hearing is used■ speech difficulties■ shortness of breath or breathing difficulties causing restriction■ chronic or recurrent pain or discomfort causing restriction■ blackouts, fits, or loss of consciousness■ difficulty learning or understanding■ incomplete use of arms or fingers■ difficulty gripping or holding things■ incomplete use of feet or legs■ nervous or emotional condition causing restriction■ restriction in physical activities or in doing physical work■ disfigurement or deformity■ mental illness or condition requiring help or supervision■ long-term effects of head injury, stroke or other brain damage causing restriction■ receiving treatment or medication for any other long-term conditions or ailments and still restricted■ any other long-term conditions resulting in a restriction.
Employed	<p>Persons who reported that they had worked in a job, business or farm during the reference week (the full week prior to the date of interview); or that they had a job in the reference week but were not at work.</p>
Employment restriction	<p>A person with one or more disabilities has an employment restriction if, because of their disability, they:</p> <ul style="list-style-type: none">■ are permanently unable to work■ are restricted in the type of work they can or could do■ need or would need at least one day a week off work on average■ are restricted in the number of hours they can or could work■ require or would require an employer to provide special equipment, modify the work environment or make special arrangements■ require assistance from a disability job placement program or agency■ need a support person at work■ need or would need to be given ongoing assistance or supervision, or■ would find it difficult to change jobs or get a better job. <p>This information was collected for persons aged 15-64 years with one or more disabilities, living in households.</p>
Full-time or part-time worker	<p>Full-time work is defined as 35 hours or more per week.</p> <p>For employed persons, full-time or part-time status is determined by the actual and/or usual number of hours worked in all jobs during the reference period.</p>
Labour force status	<p>A classification of the population aged 15 years or over into employed, unemployed or not in the labour force.</p>
Level of highest non-school qualification	<p>Level of highest non-school qualification identifies the highest achievement a person has attained in any area of study. It is not a measurement of the relative importance of different fields of study, but a ranking of qualifications and other educational attainments regardless of the particular area of study or the type of institution at which the study was undertaken. Level of highest non-school qualification is based on the Australian Standard Classification of Education (ASCED), 2001.</p>

GLOSSARY *continued*

Long-term condition	A disease or disorder which has lasted or is likely to last for at least six months; or a disease, disorder or event (e.g. stroke, poisoning, accident etc.) which produces an impairment or restriction which has lasted or is likely to last for at least six months. Long-term health conditions have been coded to a classification based on the World Health Organisation's International Classification of Diseases, 10th Revision (ICD-10).
Mild core activity limitation	See Core activity limitation.
Mobility	Mobility comprises the following tasks: <ul style="list-style-type: none">■ getting into or out of a bed or chair■ moving about the usual place of residence■ going to or getting around a place away from the usual place of residence■ walking 200 metres■ walking up and down stairs without a handrail■ bending and picking up an object from the floor■ using public transport.
Moderate core activity limitation	See Core activity limitation.
Non-core restriction	A restriction in employment and/or schooling.
Not in the labour force	Persons who, during the reference period, were neither employed nor unemployed. They include persons who were keeping house (unpaid), retired, voluntarily inactive, permanently unable to work, in institutions, trainee teachers, members of contemplative religious orders, and persons whose only activity during the reference period was jury service or unpaid voluntary work.
Participation rate	In the context of labour force statistics, the participation rate for any group is the number of persons in the labour force (i.e. employed persons plus unemployed persons) expressed as a percentage of the population aged 15 years and over in the same group. In this publication, the population is restricted to persons aged 15-64 years.
Profound core activity limitation	See Core activity limitation.
Limitation	A person has a limitation if they have difficulty doing a particular activity, needs assistance from another person or uses an aid.
Schooling restriction	A schooling restriction is determined for persons aged 5-20 years who have one or more disabilities if, because of their disability, they: <ul style="list-style-type: none">■ are unable to attend school■ attend a special school■ attend special classes at an ordinary school■ need at least one day a week off school on average, or■ have difficulty at school.
Self care	This activity comprises the following tasks: showering or bathing, dressing, eating, toileting, and bladder or bowel control.
Severe core activity limitation	See Core activity limitation.
Specific limitation or restriction	A limitation in core activities, or a restriction in schooling or employment. This corresponds with the concept of 'handicap' used in ABS publications on disability prior to 1998.
Unemployed	Persons aged 15 years and over who were not employed during the reference period, but who actively looked for work and were available to start work.
Unemployment rate	The unemployment rate for any group is the number of unemployed persons in that group expressed as a percentage of the labour force (i.e. employed persons plus unemployed persons) in the same group.

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