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National Health Survey

SF-36 Population Norms

Australia

NOTES

INTRODUCTION

The SF-36 (Short Form, 36 questions) is a survey questionnaire designed to provide information on general health and wellbeing. This publication presents Australian population norms for the SF-36. These norms provide benchmarks for other population studies in Australia using the SF-36 and for monitoring general health outcomes over time.

The questionnaire was derived from a larger set of questions used in the Medical Outcomes Study in the United States of America in the 1980s. From these questions a concise generic instrument was developed, the SF-36, which has been demonstrated in clinical and population settings to produce reliable and valid results. The questionnaire is now in use internationally.

The SF-36 provides an indicator across eight dimensions of health and wellbeing: Physical functioning, Role limitations due to physical problems, Bodily pain, General health perceptions, Vitality, Social functioning, Role limitations due to emotional problems, and Mental health, as well as a separate single-item dimension called Health transition.

With the exception of the Health transition item, each question contributes, in association with other questions, to a score derived for one of the eight dimensions. The contribution of questions to each of the dimensions is presented diagrammatically in Appendix A. Each response category has a score value, determined by the authors of the questionnaire. These values are summed across contributing questions and expressed as a score 0-100 for each of the eight dimensions.

As well as the eight health dimensions, two summary measures can be calculated: the Physical Component Summary (PCS) and Mental Component Summary (MCS). These have been derived using principal component factor analysis: see paragraph 21 of Explanatory Notes.

In this publication SF-36 profiles are presented for various demographic and socioeconomic subgroups as well as for persons experiencing various illness conditions. For further references about the SF-36 see paragraph 29 of Explanatory Notes.

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INQUIRIES

For information about other ABS statistics and services, please refer to the back of this publication.

For further information about these statistics, contact Chris Gordon on Canberra (02) 6252 7566, or freecall 1800 060 050.

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SUMMARY OF FINDINGS

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INTRODUCTION

The SF-36 questionnaire provides indicators across eight dimensions of health and wellbeing as follows:

- **Physical functioning:** indicates the extent to which, on a typical day, a person is limited by their health in performing a range of physical activities, including bathing and dressing.
- **Role—physical:** indicates the effects of physical health on a person's performance of their work or other daily activities; i.e. whether limited in the kinds of work or other activities they were able to do, or reduced the time spent on those activities, or had difficulty in performing those activities due to physical health.
- **Bodily pain:** indicates the severity of pain experienced and the extent to which it had interfered with normal activities.
- **General health:** combines self-assessed health status with indicators of current expectations and perceptions of health relative to the health of others.
- **Vitality:** indicates a person's energy level and level of fatigue.
- **Social functioning:** indicates the impact of health or emotional problems on the quality and quantity of a person's social activities with others.
- **Role—emotional:** indicates the effects of emotional problems on a person's performance of their work or other daily activities; i.e. whether limited in the kinds of work or other activities they were able to do, or reduced the time spent on those activities, or had difficulty in performing those activities due to emotional problems.
- **Mental health:** indicates the amount of time a person experienced feelings of nervousness, anxiety, depression and happiness.

Except for Physical functioning and General health, the dimensions focus on aspects of health and wellbeing during the four weeks prior to interview. In addition, a Health transition item is provided indicating a person's perception of the extent of change in their health over the previous year. This indicator is usually considered separately from the eight dimensions above.

Scores for all dimensions (except Health transition) are expressed on a scale of 0 – 100, where a higher score indicates a better state of health or wellbeing (see paragraph 5 of Explanatory Notes). For five of the dimensions (Physical functioning, Role—physical, Bodily pain, Social functioning and Role—emotional) the highest possible score of 100 indicates the absence of limitations or disabilities. For the remaining dimensions (General health, Vitality, Mental health) a score of 100 indicates a positive state of wellbeing. For these three dimensions, a score in the mid-range indicates that a person has reported no limitations or disabilities.

SUMMARY OF FINDINGS *continued*

INTRODUCTION *continued*

For output, the dimensions are presented in the order as listed above; that is from dimensions most strongly related to physical health through to those most strongly related to mental health and wellbeing. Although the dimensions are independent of each other, for graphical presentation the points are joined to form a line graph (see paragraph 7 of Explanatory Notes). The distinctive shape of a typical SF-36 profile is determined by the ordering of the dimensions and by the nature of those dimensions. Scores for those dimensions where a high score indicates the absence of limitations or disabilities will typically be higher than those where a high score indicates positive wellbeing. Hence, for example, SF-36 profiles typically dip markedly at the Vitality dimension.

The following summary presents SF-36 results for selected population groups, defined by their demographic and socioeconomic characteristics, lifestyle-related characteristics and illness conditions experienced.

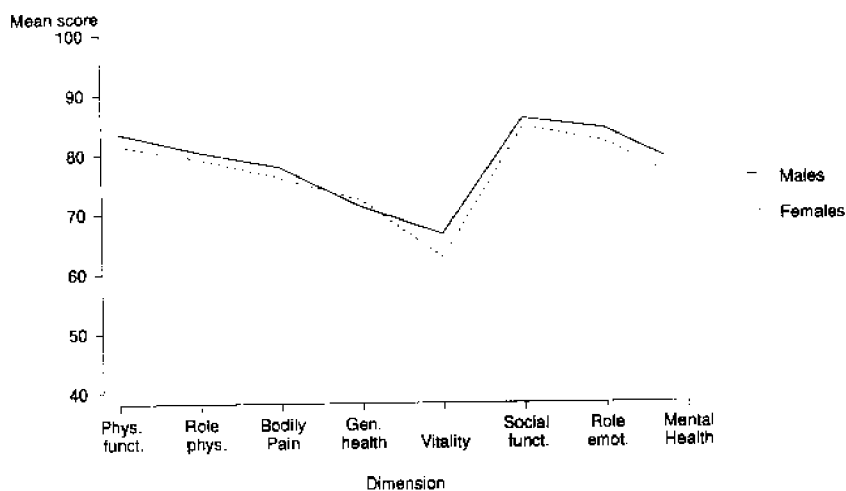
DEMOGRAPHIC AND SOCIOECONOMIC FACTORS

In general, findings from the SF-36 questionnaire were consistent with other indicators of health and wellbeing from the 1995 National Health Survey (NHS) which show that younger people and those in higher socioeconomic groups experienced better health and health-related wellbeing than those in other groups.

Sex

The SF-36 profiles for males and females aged 18 years or more were similar, with males scoring slightly higher than females for all dimensions except the general health dimension where females scored higher than males, particularly in older age groups (table 2). However, differences between males and females were evident in the SF-36 profiles for some other characteristics such as marital status and employment status.

SF-36 profiles by sex, age standardised



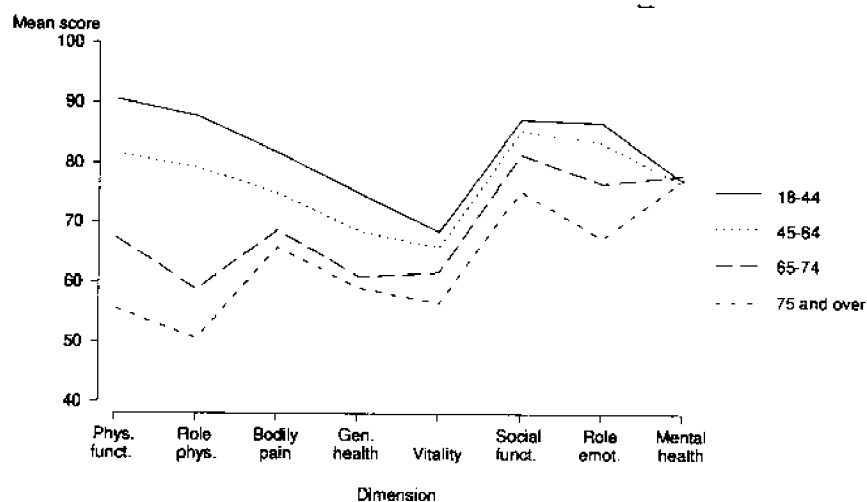
SUMMARY OF FINDINGS *continued*

Age

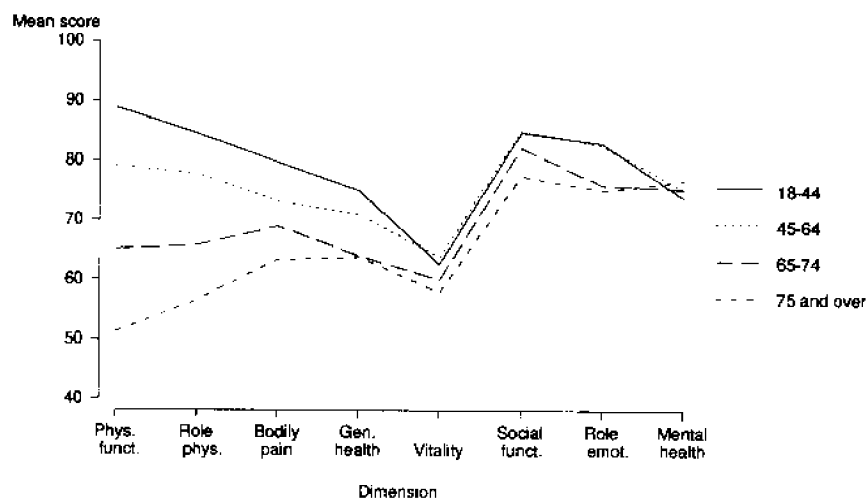
Age has a substantial effect on some SF-36 dimensions. In general, older people had lower SF-36 scores than younger people, reflecting their relatively poorer state of health and wellbeing, particularly in the scales relating to their physical health. While there was a gradual decline between 18 and 44 years of age, greater declines were recorded in SF-36 profiles for older age groups. These changes were less evident for the scales which reflect mental health status and wellbeing; scores for the mental health dimension were relatively unchanged across all age groups (table 1).

Given the variation of SF-36 scores by age and sex and the relationship of these variables to others such as marital status, labour force status and health risk factors, subsequent comparisons are based on age and sex standardised SF-36 profiles. See paragraph 19 of Explanatory Notes.

SF-36 profiles by selected age, males



SF-36 profiles by selected age, females



SUMMARY OF FINDINGS *continued*

Marital status

For both males and females, those who were separated, divorced or widowed scored lower across all dimensions than persons who were married or lived in a de facto relationship. Whereas males who had never married scored higher across all dimensions than those who were separated, divorced or widowed, for females the pattern was mixed, and differences in scores were generally smaller than those for males (table 3).

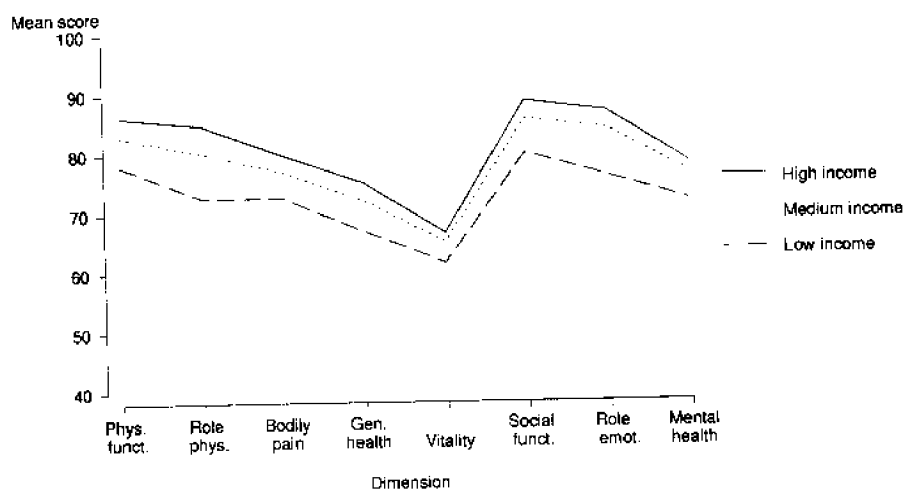
Employment status

When people aged 18–64 years were divided into groups based on their employment status, those who were employed scored highest across all dimensions. Males not in the labour force scored markedly lower on all scales than both employed and unemployed males (table 4). Among females, scores for those unemployed and those not in the labour force were similar for most dimensions relating to physical health: for those dimensions relating to mental health and wellbeing lowest scores were recorded for those who were unemployed.

Income

SF-36 scores varied by level of income (as measured in terms of equivalent income: see paragraph 22 of Explanatory Notes). The lower the income group the lower the mean SF-36 scores recorded, indicating poorer reported levels of health and wellbeing (table 5).

SF-36 profiles by equivalent income, age and sex standardised



SUMMARY OF FINDINGS *continued*

Socioeconomic disadvantage

The Index of Relative Socio-Economic Disadvantage is an indicator of the socioeconomic status of an area. A lower index score indicates that an area has, for example, proportionally more lower income families, more people in unskilled occupations, fewer people with post-school qualifications or training. As might be expected given the findings for income outlined above, mean SF-36 scores for people living in areas of greater relative socioeconomic disadvantage were lower for all eight dimensions than those in areas of less disadvantage (table 6). Across all index quintiles, scores for females were slightly below those for males for most health dimensions.

Household type

Scores for persons in single parent households were generally lower, particularly for the dimensions of Role limitation—emotional and Role limitation—physical (table 7). Mean SF-36 scores for persons living as couples (with or without children) were generally higher than for persons in other types of households.

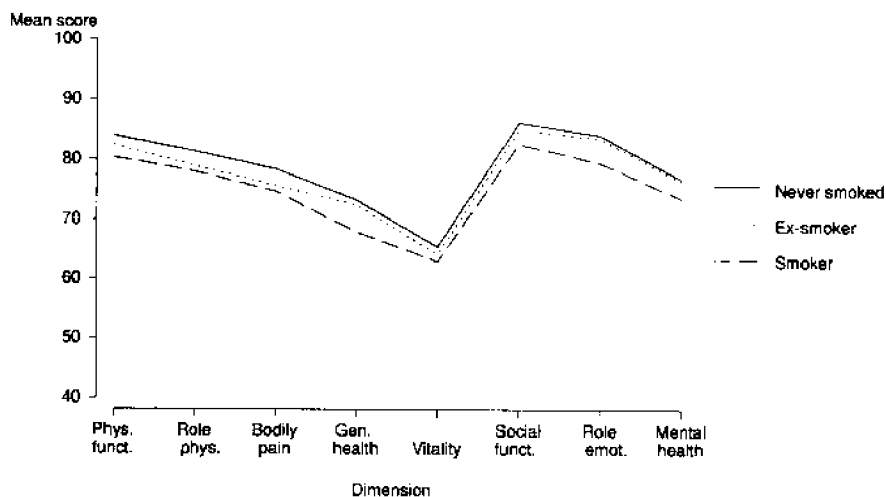
HEALTH RISK FACTORS

Lifestyle and related factors such as smoking, high levels of alcohol consumption, lack of exercise and excess body weight have been identified as risk factors for a range of medical conditions such as diabetes, heart disease and some cancers. SF-36 profiles by smoker status, body weight and exercise are discussed below. Due to sub-sampling arrangements within the NHS, SF-36 profiles for alcohol consumption levels cannot be compiled.

Smoking

Smokers recorded lower scores for all SF-36 scales than those who had never smoked and those who were ex-smokers (table 8).

SF-36 profiles by smoking status, age and sex standardised



SUMMARY OF FINDINGS *continued*

Body weight

People were categorised as being underweight, acceptable weight or overweight based on their body mass index, which was derived from their reported height and weight. Mean SF-36 scores were highest for those categorised as being of acceptable weight. Scores for those underweight or overweight were similar, and slightly below those of the acceptable weight group, across all dimensions. Those categorised as obese had lower SF-36 scores, particularly in those scales indicating physical health and wellbeing (table 8).

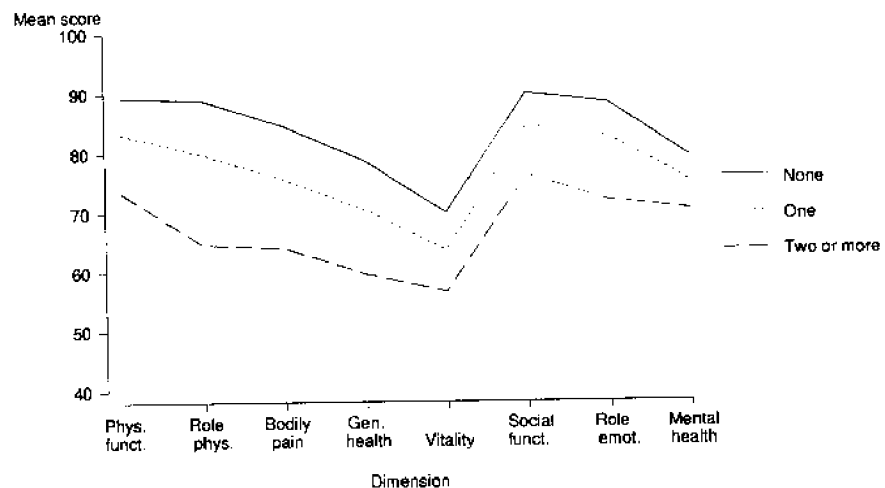
Exercise

Exercise level was derived from reported frequency, duration and intensity of exercise undertaken. SF-36 scores differed by exercise level: those reporting higher levels of exercise recorded higher SF-36 scores across all dimensions (table 8).

ILLNESS CONDITIONS

The NHS collected information on the numbers and types of recent and long-term illness conditions which people experienced. As illustrated below, SF-36 profiles were strongly influenced by the number of serious medical conditions experienced, such as cancer, diabetes, asthma and heart disease (see Glossary).

SF-36 profile by number of serious physical conditions(a), age and sex standardised



(a) See Glossary.

SUMMARY OF FINDINGS *continued*

ILLNESS CONDITIONS *continued*

By examining the SF-36 scores of those with and those without particular types of conditions, the effects of those conditions on the health and wellbeing of respondents can be assessed. In interpreting these effects, the influence of coexisting or related conditions needs to be considered; that is, the SF-36 scores reflect the health and wellbeing of people as a consequence of all conditions they experience, not just that particular condition featured in the analysis.

For some conditions (table 10) marked differences were recorded in the SF-36 scale profile of those with and without the condition. Those with arthritis, back problems, cancer, stroke, heart disease and diabetes recorded lower SF-36 scores across all dimensions than those without these conditions, with greatest differences in the dimensions reflecting physical health and wellbeing. People with asthma or hypertension also recorded lower SF-36 scores than those without, but differences were less than for most of the other conditions examined, and were fairly even across both physical and mental health dimensions. Only slight differences in mean scores were recorded for those with and without hayfever. Although the differences in the profiles of those with and those without depression and nerves, tension, nervousness were greatest in those dimensions reflecting mental health, differences in dimensions reflecting physical health were also marked.

SF-36 PROFILES(a), By Age and Sex

SF-36 PROFILES(a), By Age and Sex

Age group (years)	Physical function.....		Role limit physical.....		Bodily pain..		General health.....		Vitality.....		Social function.....		Role limit emotional.....		Mental health.....		PCS(b).....		MCS(b).....		Respondents
	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE		No.(c)
MALES																					
18-24	91.4	0.8	89.3	1.0	82.8	0.9	75.8	0.7	70.2	0.7	88.0	0.8	87.7	1.1	77.5	0.6	53.3	0.3	50.7	0.4	1216
25-34	91.7	0.6	89.5	0.8	83.2	0.7	76.8	0.6	69.1	0.6	88.3	0.6	88.7	0.8	78.2	0.5	53.4	0.2	50.9	0.3	1956
35-44	88.8	0.6	85.3	1.0	79.8	0.8	73.2	0.6	67.0	0.6	86.2	0.7	84.9	1.0	76.2	0.5	52.0	0.3	49.9	0.3	2003
45-54	84.6	0.7	82.7	1.2	77.6	0.9	70.8	0.7	67.0	0.7	87.2	0.8	85.3	1.1	76.8	0.6	50.3	0.3	50.9	0.3	1538
55-64	77.0	1.1	74.2	1.7	71.4	1.2	65.5	1.0	64.1	0.9	83.5	1.1	81.2	1.5	76.8	0.8	46.6	0.5	51.0	0.4	1021
65-74	67.5	1.3	58.9	2.1	68.8	1.4	61.2	1.1	61.8	1.1	81.7	1.2	76.9	1.8	78.4	0.9	42.3	0.6	51.9	0.5	783
75 and over	55.7	2.2	50.7	3.3	65.9	2.2	59.2	1.7	56.7	1.7	75.6	2.1	67.6	3.1	77.6	1.4	38.9	0.9	50.9	0.8	339
FEMALES																					
18-24	88.8	0.8	85.6	1.2	80.4	0.8	71.7	0.7	62.8	0.7	83.7	0.8	79.7	1.3	72.8	0.7	52.9	0.3	47.4	0.4	1331
25-34	89.3	0.5	83.5	1.0	79.8	0.7	75.9	0.6	62.3	0.6	84.0	0.7	83.7	1.0	74.2	0.5	52.6	0.2	48.3	0.3	2182
35-44	88.6	0.5	84.8	1.0	79.2	0.7	76.3	0.6	63.5	0.6	86.3	0.6	84.5	1.0	74.4	0.5	52.5	0.3	49.0	0.3	2107
45-54	81.8	0.8	81.0	1.2	74.8	0.9	72.9	0.7	64.5	0.7	85.7	0.8	84.0	1.2	75.5	0.6	49.7	0.3	50.3	0.3	1566
55-64	75.2	1.1	72.9	1.7	70.9	1.2	68.1	0.9	63.0	0.9	84.6	1.1	80.6	1.5	75.0	0.8	46.6	0.5	50.6	0.5	1012
65-74	65.2	1.3	65.8	2.0	69.0	1.3	64.1	1.1	60.0	1.1	82.2	1.2	75.9	1.8	75.3	0.9	43.2	0.6	50.7	0.5	875
75 and over	51.4	1.8	56.7	2.5	63.5	1.8	63.9	1.3	58.0	1.4	77.4	1.7	75.1	2.2	76.8	1.1	38.3	0.8	52.3	0.6	539
PERSONS																					
18-24	90.1	0.5	87.4	0.8	81.6	0.6	73.7	0.5	66.5	0.5	85.9	0.6	83.7	0.9	75.2	0.5	53.1	0.2	49.0	0.3	2547
25-34	90.5	0.4	86.5	0.7	81.5	0.5	76.3	0.4	65.6	0.4	86.1	0.5	86.2	0.6	76.2	0.4	53.0	0.2	49.6	0.2	4138
35-44	88.7	0.4	85.1	0.7	79.5	0.5	74.8	0.4	65.2	0.4	86.2	0.5	84.7	0.7	75.3	0.4	52.3	0.2	49.4	0.2	4110
45-54	83.3	0.5	81.8	0.8	76.2	0.6	71.8	0.5	65.8	0.5	86.4	0.5	84.7	0.8	76.2	0.4	50.0	0.2	50.6	0.2	3104
55-64	76.1	0.8	73.5	1.2	71.1	0.8	66.8	0.7	63.6	0.6	84.1	0.8	80.9	1.1	75.9	0.6	46.6	0.3	50.8	0.3	2033
65-74	66.2	0.9	62.7	1.4	68.9	0.9	62.7	0.8	60.8	0.8	81.9	0.9	76.4	1.3	76.7	0.6	42.8	0.4	51.3	0.4	1658
75 and over	53.0	1.4	54.4	2.0	64.4	1.4	62.1	1.0	57.5	1.1	76.7	1.3	72.2	1.8	77.1	0.8	38.5	0.6	51.8	0.5	878

(a) Unstandardised mean scores.

(b) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of

Explanatory Notes.

(c) Number of respondents with valid scores for all eight SF-36 dimensions, i.e. this is the minimum number of respondents contributing to any one particular dimension.

SF-36 PROFILES, By Sex

	Physical function	Role limit physical	Bodily pain	General health	Vitality	Social function	Role limit emotional	Mental health	PCS(a)	MCS(a)
MALES										
Age standardised values										
Mean score	83.6	80.3	77.7	71.0	66.4	85.7	83.9	77.3	49.8	50.8
Standard error of mean	0.3	0.5	0.4	0.3	0.3	0.3	0.5	0.3	0.1	0.1
Unstandardised values										
Mean score	84.2	81.0	78.0	71.3	66.6	85.9	84.2	77.3	50.1	50.8
Standard error of mean	0.3	0.5	0.4	0.3	0.3	0.3	0.5	0.2	0.1	0.1
Standard deviation	23.4	34.2	24.6	20.4	19.3	21.9	30.9	16.6	9.9	9.6
Observations contributing to mean	8 979	8 974	8 970	8 989	8 973	9 007	8 938	8 955	8 856	8 856
25th percentile score	80.0	75.0	62.0	60.0	55.0	75.0	100.0	68.0	46.0	46.4
50th percentile score	95.0	100.0	84.0	75.0	70.0	100.0	100.0	80.0	53.6	53.2
75th percentile score	100.0	100.0	100.0	87.0	80.0	100.0	100.0	88.0	56.8	57.3
Maximum score	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	72.8	74.7
Minimum score	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	3.2
Ceiling (%)	40.1	71.5	41.1	6.8	2.5	58.2	75.5	5.4	...	...
Floor (%)	0.8	10.4	0.9	0.2	0.4	0.7	7.8	0.1	...	...

	Physical function	Role limit physical	Bodily pain	General health	Vitality	Social function	Role limit emotional	Mental health	PCS(a)	MCS(a)
FEMALES										
Age standardised values										
Mean score	81.5	79.1	75.9	72.1	62.5	84.2	81.7	74.6	49.6	49.4
Standard error of mean	0.3	0.5	0.4	0.3	0.3	0.3	0.5	0.2	0.1	0.1
Unstandardised values										
Mean score	81.1	78.8	75.7	72.0	62.5	84.1	81.6	74.6	49.5	49.4
Standard error of mean	0.3	0.5	0.4	0.3	0.3	0.3	0.5	0.2	0.1	0.1
Standard deviation	24.3	36.0	25.4	20.3	20.1	22.9	33.6	17.3	10.4	10.3
Observations contributing to mean	9 755	9 736	9 729	9 746	9 755	9 782	9 682	9 721	9 612	9 612
25th percentile score	72.2	75.0	62.0	62.0	50.0	75.0	66.7	64.0	44.6	44.5
50th percentile score	90.0	100.0	84.0	77.0	65.0	100.0	100.0	80.0	52.9	52.3
75th percentile score	100.0	100.0	100.0	87.0	80.0	100.0	100.0	88.0	56.8	56.7
Maximum score	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	75.2	72.5
Minimum score	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.5
Ceiling (%)	32.5	68.9	37.6	7.3	1.2	54.4	73.1	3.7	...	...
Floor (%)	0.8	12.6	0.9	0.2	0.5	0.8	10.1	0.1	...	...

(a) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.

SF-36 PROFILES, By Sex *continued*

PERSONS

	Physical function	Role limit physical	Bodily pain	General health	Vitality	Social function	Role limit emotional	Mental health	PCS(a)	MCS(a)
Age standardised values										
Mean score	82.5	79.8	76.8	71.6	64.5	84.9	82.8	75.9	49.7	50.1
Standard error of mean	0.2	0.4	0.3	0.2	0.2	0.2	0.3	0.2	0.1	0.1
Unstandardised values										
Mean score	82.6	79.9	76.8	71.6	64.5	85.0	82.9	75.9	49.8	50.1
Standard error of mean	0.2	0.4	0.3	0.2	0.2	0.2	0.3	0.2	0.1	0.1
Standard deviation	23.9	35.1	25.0	20.3	19.8	22.5	32.3	17.0	10.2	10.0
Observations contributing to mean	18 734	18 710	18 699	18 715	18 728	18 789	18 620	18 676	18 468	18 468
25th percentile score	75.0	75.0	62.0	60.0	53.4	75.0	66.7	68.0	45.3	45.5
50th percentile score	95.0	100.0	84.0	77.0	70.0	100.0	100.0	80.0	53.3	52.8
75th percentile score	100.0	100.0	100.0	87.0	80.0	100.0	100.0	88.0	56.8	57.0
Maximum score	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	75.2	74.7
Minimum score	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	-3.2
Ceiling (%)	36.2	70.2	39.3	7.0	1.9	56.2	74.3	4.6	..	..
Floor (%)	0.8	11.5	0.9	0.2	0.5	0.8	9.0	0.1	..	..

(a) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.

SF-36 PROFILES(a), By Marital Status and Sex

SF-36 PROFILES(a), By Marital Status and Sex

Marital status	Physical function.....		Role limit physical.....		Bodily pain..		General health.....		Vitality.....		Social function.....		Role limit emotional....		Mental health.....		PCS(b).....		MCS(b).....		No.(c)
	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	
MALES																					
Married/de facto	84.0	0.5	81.0	0.6	77.1	0.5	71.4	0.4	66.6	0.4	86.6	0.4	85.2	0.6	78.2	0.3	49.7	0.2	51.3	0.2	5 971
Divorced/separated/ widowed	80.5	2.6	77.2	2.0	74.8	2.0	67.6	1.3	63.0	1.6	80.5	2.8	80.4	1.7	73.6	1.5	49.0	0.9	48.8	0.9	749
Never married	82.9	1.1	83.3	1.6	81.2	1.1	70.5	1.1	68.0	1.0	85.7	1.1	83.3	1.6	77.2	0.8	50.5	0.5	50.7	0.5	2 136
FEMALES																					
Married/de facto	81.7	0.4	79.6	0.7	76.2	0.5	72.4	0.4	62.7	0.4	85.3	0.4	82.7	0.7	75.5	0.3	49.6	0.2	49.9	0.2	6 053
Divorced/separated/ widowed	79.7	1.1	77.0	1.5	73.8	1.3	71.1	1.0	60.6	1.1	80.2	1.3	79.2	1.8	72.6	0.9	49.1	0.4	48.1	0.6	1 725
Never married	80.3	1.4	76.5	2.1	74.9	1.5	69.9	1.2	62.9	1.2	81.5	1.4	78.2	2.0	74.2	1.0	49.0	0.6	48.8	0.6	1 834
PERSONS																					
Married/de facto	82.8	0.3	80.3	0.5	76.6	0.4	71.9	0.3	64.7	0.3	86.0	0.3	83.9	0.5	76.8	0.2	49.7	0.1	50.6	0.1	12 024
Divorced/separated/ widowed	80.1	1.4	77.2	1.2	74.3	1.2	69.4	0.8	61.8	1.0	80.4	1.6	79.9	1.2	73.1	0.9	49.1	0.5	48.5	0.5	2 474
Never married	81.6	0.9	79.7	1.3	78.0	0.9	70.1	0.8	65.4	0.8	83.6	0.9	80.8	1.3	75.6	0.6	49.7	0.4	49.7	0.4	3 970

(a) Age standardised mean scores for males and females. Age and sex standardised mean scores for persons.

(b) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.

(c) Number of respondents with valid scores for all eight SF-36 dimensions, i.e. this is the minimum number of respondents contributing to any one particular dimension.

4 SF-36 PROFILES(a), By Employment Status and Sex

SF-36 PROFILES(a), By Employment Status and Sex

Employment status	Physical function.....		Role limit physical.....		Bodily pain.....		General health.....		Vitality.....		Social function.....		Role limit emotional.....		Mental health.....		PCS(b).....		MCS(b).....		Respondents
	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE		No. (c)
MALES																					
Employed	89.7	0.3	88.2	0.5	81.2	0.4	75.2	0.3	68.9	0.3	89.0	0.3	88.5	0.5	78.8	0.3	52.3	0.1	51.4	0.2	6,383
Unemployed	84.8	1.4	80.9	2.1	78.9	1.7	68.4	1.3	68.2	1.3	82.4	1.6	81.0	2.1	72.2	1.3	51.0	0.6	48.6	0.7	498
Not in labour force	72.1	1.8	59.3	2.5	66.6	1.9	58.4	1.5	56.9	1.5	71.1	1.8	67.9	2.4	65.9	1.4	45.1	0.8	44.9	0.8	851
FEMALES																					
Employed	87.9	0.4	85.1	0.6	79.4	0.5	76.1	0.4	64.4	0.4	86.8	0.4	86.0	0.6	75.8	0.3	52.1	0.2	49.8	0.2	5,328
Unemployed	81.6	3.4	77.5	4.5	75.2	3.4	71.5	2.4	62.3	2.5	78.3	3.7	71.6	4.8	67.8	2.1	50.9	1.4	45.6	1.3	325
Not in labour force	81.8	0.7	77.1	1.1	74.4	0.7	69.6	0.6	60.9	0.6	81.3	0.7	77.6	1.1	71.8	0.5	49.8	0.3	47.6	0.3	2,542
PERSONS																					
Employed	88.8	0.2	86.7	0.4	80.3	0.3	75.6	0.2	66.7	0.2	87.9	0.3	87.2	0.4	77.3	0.2	52.2	0.1	50.6	0.1	711
Unemployed	83.2	1.8	79.2	2.5	77.1	1.9	69.9	1.4	65.2	1.4	80.4	2.0	76.4	2.6	70.0	1.2	51.0	0.7	47.1	0.8	823
Not in labour force	77.0	0.9	68.1	1.4	70.5	1.0	64.0	0.8	58.8	0.8	76.2	1.0	72.7	1.3	68.8	0.7	47.4	0.4	46.2	0.4	393

(a) Persons aged 18-64 years. Age standardised mean scores for males and females. Age and sex standardised mean scores for persons.

(b) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.

(c) Number of respondents with valid scores for all eight SF-36 dimensions, i.e. this is the minimum number of respondents contributing to any one particular dimension.

SF-36 PROFILES(a), By Equivalent Income(b) and Sex

SF-36 PROFILES(a), By Equivalent Income(b) and Sex

Equivalent income	Physical function.....		Role limit physical.....		Bodily pain.....		General health.....		Vitality.....		Social function.....		Role limit emotional.....		Mental health.....		PCS(c).....		MCS(c).....		Respondents
	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	
MALES																					
Low	78.4	0.8	72.0	1.2	73.6	0.9	65.9	0.7	63.2	0.7	80.2	0.8	76.3	1.2	72.6	0.6	47.9	0.3	48.5	0.4	1 994
Medium	83.8	0.6	80.4	0.8	77.1	0.6	71.0	0.5	66.7	0.5	86.1	0.6	85.0	0.8	77.8	0.4	49.6	0.2	51.1	0.2	3 113
High	87.5	0.7	86.3	1.1	81.3	0.8	74.9	0.6	68.8	0.7	89.1	0.7	88.4	1.0	79.8	0.5	51.6	0.3	52.0	0.3	2 486
FEMALES																					
Low	77.8	0.7	73.3	1.1	71.8	0.8	67.7	0.6	59.7	0.6	79.4	0.7	75.3	1.1	70.9	0.5	48.2	0.3	47.3	0.3	2 646
Medium	81.9	0.5	79.7	0.9	76.8	0.6	72.9	0.5	63.1	0.5	85.2	0.6	82.7	0.8	75.2	0.4	49.9	0.2	49.8	0.3	3 289
High	85.3	0.8	83.4	1.3	78.7	0.8	75.2	0.7	64.6	0.7	88.0	0.7	85.5	1.1	76.6	0.5	51.1	0.3	50.5	0.3	3 342
PERSONS																					
Low	78.1	0.5	72.7	0.8	72.7	0.6	66.9	0.5	61.5	0.5	79.9	0.5	75.9	0.8	71.8	0.4	48.0	0.2	47.9	0.2	4 640
Medium	82.9	0.4	80.2	0.6	77.0	0.4	72.1	0.4	65.0	0.4	85.6	0.4	83.9	0.6	76.5	0.3	49.8	0.2	50.4	0.2	6 402
High	86.3	0.5	84.9	0.9	79.9	0.6	75.1	0.5	66.6	0.5	88.6	0.5	86.9	0.8	78.2	0.4	51.3	0.2	51.2	0.2	4 828

(a) Excludes those for whom equivalent income could not be derived. Age standardised mean scores for males and females. Age and sex standardised mean scores for persons.

(b) Equivalent income of household derived according to the Henderson Simplified Equivalent Income Scale and grouped into Low (lowest 3 deciles), Medium (middle 4 deciles), High (highest 3 deciles).

(c) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.

(d) Number of respondents with valid scores for all eight SF-36 dimensions, i.e. this is the minimum number of respondents contributing to any one particular dimension.

SF-36 PROFILES(a), By Index of Relative Socio-Economic Disadvantage(b) and Sex

Quintile	Physical function.....		Role limit physical.....		Bodily pain.....		General health.....		Vitality.....		Social function.....		Role limit emotional.....		Mental health.....		PCS(c).....		MCS(c).....		Respondents No.(d)
	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	
MALES																					
First	80.9	0.8	78.4	1.2	75.5	0.9	68.8	0.7	65.4	0.7	83.9	0.8	82.4	1.1	75.7	0.6	48.9	0.3	50.3	0.3	1 681
Second	82.1	0.8	78.4	1.1	76.7	0.8	69.2	0.7	65.4	0.6	84.8	0.7	83.0	1.1	76.3	0.6	49.2	0.3	50.4	0.3	1 773
Third	84.6	0.7	80.6	1.1	78.4	0.8	71.3	0.7	66.6	0.7	85.6	0.8	83.9	1.1	77.9	0.6	50.1	0.3	50.8	0.3	1 780
Fourth	84.0	0.8	79.8	1.2	77.2	0.9	71.3	0.7	66.2	0.7	85.7	0.8	83.6	1.1	77.3	0.5	49.8	0.3	50.8	0.3	1 794
Fifth	86.8	0.7	84.4	1.0	80.9	0.8	74.4	0.6	68.6	0.6	88.1	0.7	86.8	1.0	79.2	0.5	51.3	0.3	51.6	0.3	1 828
FEMALES																					
First	77.8	0.8	76.7	1.2	73.3	0.8	68.8	0.7	60.8	0.7	81.5	0.8	79.7	1.1	72.6	0.5	48.4	0.3	48.5	0.3	1 933
Second	80.9	0.7	76.7	1.1	74.5	0.8	71.3	0.6	61.9	0.6	83.7	0.7	80.6	1.1	74.0	0.6	49.4	0.3	49.1	0.3	1 953
Third	82.3	0.7	78.6	1.1	75.8	0.8	72.1	0.6	62.6	0.6	84.2	0.7	82.3	1.1	75.0	0.5	49.7	0.3	49.5	0.3	1 900
Fourth	82.9	0.7	80.4	1.1	77.8	0.8	73.6	0.6	63.4	0.6	85.6	0.7	82.4	1.1	75.1	0.5	50.3	0.3	49.6	0.3	1 928
Fifth	84.1	0.7	81.2	1.1	78.2	0.8	75.2	0.6	64.3	0.6	86.3	0.7	83.5	1.0	76.5	0.5	50.6	0.3	50.3	0.3	1 898
PERSONS																					
First	79.4	0.6	77.6	0.8	74.4	0.6	68.8	0.5	63.1	0.5	82.7	0.6	81.1	0.8	74.1	0.4	48.7	0.2	49.4	0.2	3 614
Second	81.4	0.5	78.6	0.8	75.6	0.6	70.2	0.5	63.7	0.5	84.3	0.5	81.9	0.8	75.1	0.4	49.3	0.2	49.8	0.2	3 726
Third	83.4	0.5	79.7	0.8	77.0	0.5	71.8	0.5	64.6	0.5	85.0	0.5	83.2	0.7	76.4	0.4	49.9	0.2	50.1	0.2	3 680
Fourth	83.4	0.5	80.2	0.8	77.6	0.6	72.5	0.5	64.9	0.5	85.7	0.5	83.0	0.8	76.2	0.4	50.1	0.2	50.2	0.2	3 722
Fifth	85.4	0.5	82.9	0.7	79.5	0.5	74.9	0.4	66.5	0.4	87.2	0.5	85.2	0.7	77.8	0.4	50.9	0.2	51.0	0.2	3 726

(a) Age standardised mean scores for males and females. Age and sex standardised mean scores for persons.

(b) See paragraph 23 of Explanatory Notes.

(c) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.

(d) Number of respondents with valid scores for all eight SF-36 dimensions, i.e. this is the minimum number of respondents contributing to any one particular dimension.

SF-36 PROFILES(a), By Household Type and Sex

SF-36 PROFILES(a), By Household Type and Sex

Household type	Physical function.....		Role limit physical.....		Bodily pain...		General health.....		Vitality.....		Social function.....		Role limit emotional.....		Mental health.....		PCS(b),.....		MCS(b),.....		No.(c)
	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	
MALES																					
Single parent with child(ren)	80.8	2.5	73.9	4.0	73.2	2.5	69.6	2.6	63.6	2.2	80.4	2.5	74.2	3.9	71.8	2.6	49.1	1.1	48.7	1.2	298
Person living alone	84.0	0.9	81.0	1.5	79.3	1.1	70.7	0.9	66.4	0.9	83.5	1.1	82.7	1.5	76.3	0.8	50.5	0.4	50.0	0.5	971
Couple only	83.6	0.7	79.7	1.1	76.7	0.8	71.5	0.6	66.7	0.7	86.6	0.7	86.2	1.0	78.8	0.5	49.3	0.3	51.7	0.3	2334
Couple with child(ren)	85.6	0.8	82.6	1.2	78.7	0.8	71.9	0.7	67.0	0.7	87.2	0.8	85.0	1.1	77.5	0.6	50.7	0.3	50.9	0.4	3962
Other	79.2	1.1	75.8	1.7	74.1	1.2	66.7	0.9	64.1	0.9	80.4	1.1	77.9	1.6	74.3	0.8	48.4	0.5	49.1	0.5	1291
FEMALES																					
Single parent with child(ren)	76.7	1.4	73.6	2.0	71.4	1.4	69.5	1.1	58.4	1.2	79.4	1.3	75.7	1.9	71.2	0.9	48.0	0.6	47.5	0.6	915
Person living alone	79.4	1.2	75.9	1.8	74.8	1.3	71.3	1.1	62.3	1.0	81.3	1.2	80.2	1.7	73.5	0.9	48.9	0.5	48.8	0.6	1279
Couple only	82.2	0.6	79.4	1.1	76.8	0.8	73.0	0.6	64.5	0.6	86.5	0.7	83.5	1.0	76.0	0.5	49.7	0.3	50.4	0.3	2346
Couple with child(ren)	82.8	1.2	81.3	1.6	77.2	1.1	72.0	0.9	62.4	0.9	85.0	1.0	81.5	1.6	74.8	0.7	50.4	0.4	49.2	0.4	3809
Other	79.6	1.0	78.1	1.6	73.6	1.2	69.1	0.9	61.0	0.9	80.5	1.1	80.7	1.5	73.0	0.8	48.9	0.4	48.4	0.5	1263
PERSONS																					
Single parent with child(ren)	78.7	1.4	74	2.2	72.5	1.4	69.6	1.4	60.9	1.2	80	1.4	75.4	2.1	71.5	1.3	48.6	0.6	48.1	0.7	1213
Person living alone	81.7	0.7	78.5	1.2	77.1	0.9	71.1	0.7	64.4	0.7	82.4	0.8	81.5	1.1	74.9	0.6	49.7	0.3	49.4	0.4	2250
Couple only	82.9	0.5	79.6	0.8	76.7	0.6	72.3	0.4	65.6	0.4	86.6	0.5	84.9	0.7	77.4	0.4	49.5	0.2	51.0	0.2	4680
Couple with child(ren)	84.2	0.7	82.0	1.0	77.9	0.7	71.9	0.6	64.7	0.6	86.1	0.7	83.2	1.0	76.1	0.5	50.5	0.3	50.1	0.3	7771
Other	79.4	0.7	77.0	1.2	73.9	0.8	67.9	0.7	62.6	0.7	80.6	0.8	79.4	1.1	73.7	0.6	48.6	0.3	48.8	0.3	2554

(a) Age standardised mean scores for males and females. Age and sex standardised mean scores for persons.

(b) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.

(c) Number of respondents with valid scores for all eight SF-36 dimensions, i.e. this is the minimum number of respondents contributing to any one particular dimension.

SF-36 PROFILES(a), By Selected Risk Factors/Behaviours

Factors/behaviours	Physical function.....		Role limit physical.....		Bodily pain..		General health.....		Vitality.....		social function.....		Role limit emotional.....		Mental health.....		PCS(b).....		MCS(b).....		Respondents No. (c)
	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	
Smoker status																					
Smoker	80.3	0.5	78.0	0.9	74.7	0.6	67.9	0.5	62.9	0.5	82.6	0.6	79.5	0.9	73.6	0.4	49.0	0.2	48.9	0.3	4 517
Ex-smoker	82.4	0.5	78.9	0.7	75.7	0.5	72.5	0.4	64.2	0.4	85.0	0.5	83.5	0.7	76.4	0.4	49.4	0.2	50.4	0.2	5 131
Never smoked	84.0	0.3	81.4	0.5	78.5	0.4	73.3	0.3	65.5	0.3	86.1	0.3	84.1	0.5	76.8	0.3	50.4	0.1	50.5	0.1	8 800
Body mass index(d)																					
Underweight	81.3	1.2	77.2	1.8	76.9	1.3	69.9	1.0	63.1	1.1	82.3	1.2	81.6	1.6	74.3	0.9	49.4	0.5	49.3	0.5	1 511
Acceptable	85.5	0.3	82.3	0.5	78.8	0.3	74.2	0.3	66.5	0.3	86.6	0.3	84.1	0.5	76.9	0.2	50.9	0.1	50.5	0.1	9 273
Overweight	80.8	0.5	77.1	0.8	74.3	0.6	69.8	0.5	62.8	0.5	83.6	0.5	81.3	0.8	75.2	0.4	48.7	0.2	49.6	0.2	4 423
Obese	73.8	0.9	73.7	1.4	71.1	0.9	64.5	0.8	59.1	0.8	81.3	0.9	80.0	1.3	74.3	0.7	46.3	0.4	49.4	0.4	1 565
Not stated	80.8	0.9	79.9	1.2	76.6	0.9	69.2	0.8	63.6	0.7	84.8	0.8	82.9	1.2	75.1	0.6	49.3	0.4	49.9	0.4	1 696
Exercise level(e)																					
Sedentary	77.1	0.4	75.1	0.6	73.4	0.5	67.0	0.4	60.8	0.4	81.6	0.4	79.9	0.6	73.8	0.3	47.7	0.2	49.1	0.2	6 008
Low	84.3	0.3	80.5	0.6	77.8	0.4	72.0	0.3	64.6	0.3	85.4	0.4	83.1	0.6	76.1	0.3	50.3	0.2	50.0	0.2	6 614
Moderate	86.6	0.4	84.4	0.7	79.9	0.5	75.2	0.4	68.3	0.4	88.0	0.4	85.5	0.6	77.8	0.3	51.4	0.2	51.1	0.2	4 459
Vigorous	91.9	0.8	89.2	1.2	82.4	0.9	81.3	0.8	73.6	0.7	91.7	0.7	88.6	1.2	80.6	0.6	53.3	0.4	52.7	0.4	1 387

(a) Age and sex standardised mean scores.

(b) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.

(c) Number of respondents with valid scores for all eight SF-36 dimensions, i.e. this is the minimum number of respondents contributing to any one particular dimension.

(d) See paragraph 25 of Explanatory Notes.

(e) See paragraphs 26 and 27 of Explanatory Notes.

SF-36 PROFILES(a), By State or Territory—Sex

SF-36 PROFILES(a), By State or Territory—Sex

	Physical function.....		Role limit physical.....		Bodily pain.....		General health.....		Vitality.....		Social functioning.....		Role limit emotional.....		Mental health.....		PCS(b).....		MCS(b).....		Respondents
	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE		No.(c)
MALES																					
NSW	82.9	0.9	79.5	1.3	77.2	0.9	70.6	0.8	86.6	0.7	85.1	0.9	81.9	1.3	76.5	0.7	49.7	0.4	50.5	0.4	1 304
Vic.	85.1	0.6	81.9	0.9	79.0	0.7	71.2	0.6	66.3	0.6	86.7	0.6	86.5	0.8	78.1	0.5	50.3	0.3	51.1	0.3	2 316
Qld	82.6	1.0	79.6	1.4	77.4	1.0	71.3	0.9	66.1	0.8	85.0	1.0	82.8	1.4	77.3	0.7	49.6	0.4	50.6	0.4	1 105
SA	83.9	0.8	79.0	1.3	76.1	0.9	70.9	0.7	65.8	0.7	85.8	0.8	84.9	1.1	77.5	0.6	49.4	0.4	51.0	0.3	1 430
WA	84.0	1.1	82.0	1.6	78.1	1.2	71.7	1.0	67.4	0.9	85.9	1.1	85.1	1.4	77.6	0.8	50.2	0.5	51.1	0.4	854
Tas.	82.9	1.5	77.9	2.3	77.4	1.8	70.5	1.4	65.9	1.4	86.0	1.6	84.0	2.1	77.9	1.3	49.2	0.6	51.0	0.7	419
NT(d)	82.4	1.8	78.9	2.8	76.8	2.2	70.4	1.7	66.1	1.6	85.5	1.8	85.5	2.6	78.9	0.9	49.0	0.9	51.4	0.6	587
ACT	85.0	1.1	80.3	1.9	78.0	1.3	71.3	1.1	67.1	1.0	86.1	1.2	83.4	1.7	76.2	0.9	50.3	0.5	50.4	0.5	831
FEMALES																					
NSW	81.2	0.8	80.3	1.3	76.1	0.9	72.4	0.7	62.8	0.7	84.6	0.8	81.9	1.2	74.2	0.6	49.8	0.3	49.4	0.4	1 435
Vic.	82.4	0.6	79.0	1.0	76.3	0.7	71.3	0.6	62.0	0.6	84.2	0.6	81.5	0.9	74.8	0.5	49.8	0.3	49.2	0.3	2 598
Qld	81.5	0.9	78.3	1.5	76.0	1.0	72.8	0.8	62.9	0.9	83.8	1.0	81.1	1.4	75.2	0.7	49.6	0.4	49.6	0.4	1 143
SA	80.8	0.8	77.6	1.3	75.1	0.9	71.3	0.7	61.5	0.7	84.0	0.8	81.6	1.2	74.0	0.6	49.2	0.3	49.2	0.4	1 550
WA	80.7	1.0	77.7	1.7	74.5	1.1	72.4	0.9	62.9	0.9	83.8	1.1	81.6	1.5	74.3	0.8	49.3	0.4	49.5	0.5	929
Tas.	81.3	1.4	80.9	2.2	77.0	1.6	71.7	1.3	63.7	1.3	85.0	1.5	85.8	2.0	76.4	1.1	49.5	0.6	50.4	0.6	482
NT(d)	82.0	1.7	78.1	2.6	73.7	1.9	71.1	1.5	63.6	1.5	83.0	1.7	80.5	2.5	76.2	1.3	49.0	0.8	49.8	0.8	587
ACT	82.3	1.0	79.9	1.7	75.1	1.2	72.6	1.0	62.6	1.0	84.0	1.1	81.1	1.7	75.4	0.8	49.8	0.5	49.8	0.5	881
PERSONS																					
NSW	82.0	0.6	80.0	0.9	76.5	0.7	71.5	0.5	64.7	0.5	84.9	0.6	82.1	0.9	75.3	0.5	49.7	0.2	49.9	0.3	2 739
Vic.	83.7	0.4	80.5	0.7	77.6	0.5	71.3	0.4	64.1	0.4	85.4	0.4	84.0	0.6	76.4	0.3	50.0	0.2	50.1	0.2	4 914
Qld	82.1	0.7	79.0	1.0	76.6	0.7	72.1	0.5	64.5	0.5	84.4	0.7	82.0	1.0	76.2	0.5	49.6	0.3	50.1	0.3	2 248
SA	82.3	0.5	78.3	0.9	75.6	0.6	71.1	0.5	63.7	0.5	84.9	0.6	83.2	0.8	75.7	0.4	49.3	0.2	50.1	0.2	2 980
WA	82.3	0.7	79.9	1.1	76.3	0.8	72.1	0.7	65.1	0.6	84.8	0.8	83.4	1.1	75.9	0.6	49.7	0.3	50.2	0.3	1 783
Tas.	82.1	1.0	79.7	1.6	77.2	1.2	71.2	1.0	64.9	0.9	85.6	1.1	85.1	1.4	77.2	0.8	49.4	0.4	50.8	0.5	901
NT(d)	82.3	1.2	78.6	1.9	75.3	1.4	70.8	1.1	64.9	1.1	84.2	1.2	82.9	1.8	77.5	0.8	49.1	0.6	50.6	0.5	1 174
ACT	83.6	0.8	80.3	1.3	76.5	0.9	72.0	0.7	64.8	0.7	85.0	0.8	82.3	1.2	75.8	0.6	50.0	0.3	49.9	0.4	1 712

(a) Age standardised mean scores for males and females. Age and sex standardised mean scores for persons.

(b) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.

(c) Number of respondents with valid scores for all eight SF-36 dimensions, i.e. this is the minimum number of respondents contributing to any one particular dimension.

(d) Relates to predominantly urban areas only.

SF-36 PROFILES(a), By Selected Types of Illness(b)

Illness	Physical function.....		Role limit physical.....		Bodily pain.....		General health.....		Vitality.....		Social function.....		Role limit emotional.....		Mental health.....		PCS(c).....		MCS(c).....		Respondents	
	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE	Mean score	SE		No. (d)
No. of serious physical conditions(e)																						
None	89.4	0.3	88.8	0.5	84.5	0.4	78.6	0.3	69.9	0.3	89.9	0.3	88.3	0.5	79.2	0.2	53.1	0.1	51.7	0.1		9 922
One	83.2	0.4	79.8	0.7	75.6	0.5	70.4	0.4	63.5	0.4	84.3	0.5	82.6	0.7	75.0	0.4	49.8	0.2	49.6	0.2		4 683
Two or more	73.4	0.7	64.5	1.2	64.0	0.9	58.6	0.7	56.5	0.7	76.1	0.9	71.8	1.3	70.2	0.6	44.8	0.3	46.9	0.4		3 863
Cancer(f)																						
No cancer	81.4	0.3	78.8	0.4	76.2	0.3	71.5	0.2	64.3	0.2	85.0	0.3	82.9	0.4	76.2	0.2	49.3	0.1	50.3	0.1		15 601
Cancer	75.0	2.7	61.8	4.5	65.6	3.0	56.5	2.6	54.6	2.2	77.3	2.8	73.4	3.8	70.4	1.9	44.6	1.1	46.8	1.0		320
Heart disease(g)																						
No heart disease	79.1	0.3	77.1	0.5	74.8	0.3	70.4	0.3	64.3	0.3	84.9	0.3	82.1	0.4	76.3	0.2	48.3	0.1	50.6	0.1		11 205
Any heart disease	65.8	2.0	51.2	4.7	60.0	2.6	52.7	2.2	54.7	1.9	73.6	2.5	70.9	3.9	71.8	1.7	40.3	1.0	48.1	1.0		578
Stroke(h)																						
No stroke	67.9	0.6	66.1	0.9	69.2	0.6	64.7	0.5	61.6	0.5	82.0	0.5	77.6	0.8	76.7	0.4	43.6	0.2	51.3	0.2		4 459
Stroke	45.0	4.9	29.7	5.5	54.0	4.4	43.9	3.3	46.2	2.8	64.4	4.1	60.5	6.9	66.3	2.6	33.7	1.6	45.9	1.6		110
Hypertension																						
No hypertension	83.9	0.3	81.2	0.4	77.8	0.3	72.9	0.2	65.5	0.2	85.6	0.3	83.9	0.4	76.5	0.2	50.3	0.1	50.4	0.1		16 038
Hypertension	76.1	1.0	72.4	1.7	70.1	1.2	62.5	1.0	58.4	0.9	81.4	1.1	76.1	1.7	72.0	0.9	46.8	0.4	48.0	0.5		2 430
Diabetes(i)																						
No diabetes	82.9	0.2	80.2	0.4	77.0	0.3	72.0	0.2	64.8	0.2	85.2	0.2	83.0	0.3	76.0	0.2	49.9	0.1	50.1	0.1		17 931
Diabetes	73.3	2.2	62.9	4.3	66.1	2.6	53.0	2.2	53.9	2.0	72.3	3.0	76.5	3.6	70.7	2.7	44.0	1.0	46.7	1.4		537

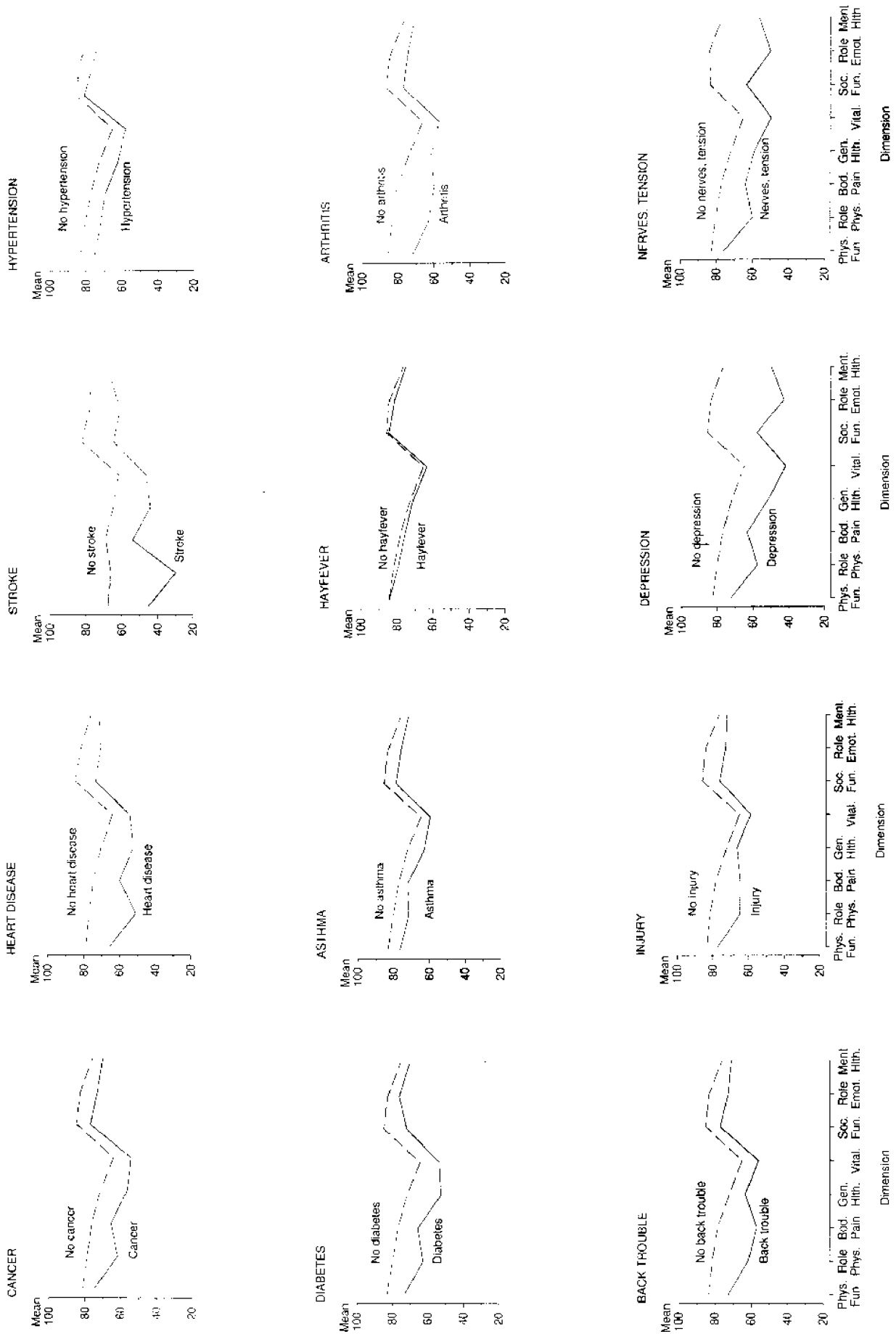
(a) Age and sex standardised mean scores.
 (b) Self-reported type of illness. Includes recent and long-term conditions, see Glossary.
 (c) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.
 (d) Number of respondents with valid scores for all eight SF-36 dimensions, i.e. this is the minimum number of respondents contributing to any one particular dimension.
 (e) See Glossary.
 (f) Persons 25 years and over. Includes breast cancer and neoplasms n.e.c. but excludes skin cancer.
 Respondents with skin cancer only are included in the 'no cancer' group.
 (g) Persons 35 years and over.
 (h) Persons 55 years and over. Includes after effects of stroke.
 (i) Includes diabetes mellitus types 1 and 2 and diabetes unspecified.

SF-36 PROFILES(a), By Selected Types of Illness(b) *continued*

Illness	Physical function.....		Role limit physical.....		Bodily pain.....		General health.....		Vitality.....		Social function.....		Role limit emotional.....		Mental health.....		PCS(c).....		MCS(c).....		Respondents	
	Mean Score	SE	Mean Score	SE	Mean Score	SE	Mean Score	SE	Mean Score	SE	Mean Score	SE	Mean Score	SE	Mean Score	SE	Mean Score	SE	Mean Score	SE	No.(d)	
Asthma																						
No asthma	83.2	0.2	80.6	0.4	77.3	0.3	72.5	0.2	65.0	0.2	85.5	0.2	83.5	0.3	76.3	0.2	50.0	0.1	50.3	0.1	16 668	
Asthma	76.6	0.8	71.8	1.3	72.2	0.9	63.1	0.8	59.6	0.7	79.1	0.9	76.2	1.3	71.9	0.6	47.3	0.4	47.8	0.4	1 800	
Arthritis(e)																						
No arthritis	85.5	0.3	83.6	0.4	80.9	0.3	73.9	0.2	66.5	0.2	86.7	0.3	84.8	0.4	77.0	0.2	51.3	0.1	50.5	0.1	14 978	
Arthritis	72.1	1.0	63.2	1.7	60.2	1.0	61.7	0.9	57.3	0.8	77.3	0.9	74.8	1.6	71.4	0.7	43.7	0.4	48.3	0.4	3 490	
Back trouble(f)																						
No back trouble	83.6	0.2	81.6	0.4	78.7	0.3	72.4	0.2	65.3	0.2	85.7	0.2	83.8	0.3	76.4	0.2	50.4	0.1	50.3	0.1	16 742	
Back trouble	72.8	0.9	61.9	1.4	57.3	0.9	63.7	0.8	56.4	0.7	77.4	0.9	73.2	1.4	71.5	0.6	43.4	0.4	48.2	0.4	1 726	
Injury(g)																						
No injury	83.1	0.2	81.6	0.4	78.2	0.3	72.2	0.2	65.2	0.2	86.0	0.2	84.0	0.3	76.4	0.2	50.2	0.1	50.4	0.1	16 478	
Any injury	77.3	0.8	64.7	1.3	64.7	0.9	66.5	0.7	58.8	0.7	76.1	0.9	72.9	1.2	72.2	0.6	45.9	0.3	47.6	0.4	1 990	
Depression																						
No depression	82.7	0.2	80.2	0.4	77.1	0.3	72.0	0.2	65.0	0.2	85.5	0.2	83.7	0.3	76.5	0.2	49.8	0.1	50.4	0.1	18 069	
Depression	72.6	1.8	57.8	3.1	63.4	2.1	51.5	1.6	41.8	1.6	58.0	2.3	42.8	3.0	49.7	1.7	47.9	0.9	33.9	1.0	399	
Nervousness																						
No nerves, tension	82.8	0.2	80.4	0.4	77.1	0.3	71.9	0.2	64.9	0.2	85.5	0.2	83.8	0.3	76.5	0.2	49.8	0.1	50.4	0.1	17 946	
Nerves, tension	76.0	1.5	60.0	2.8	63.8	2.0	59.0	1.7	49.3	1.5	63.1	2.0	49.7	2.8	56.2	1.5	48.1	0.8	37.7	0.9	522	

(a) Age and sex standardised mean scores.
 (b) Self-reported type of illness. Includes recent and long-term conditions, see Glossary.
 (c) Physical Component Summary (PCS) and Mental Component Summary (MCS); see paragraph 21 of Explanatory Notes.
 (d) Number of respondents with valid scores for all eight SF-36 dimensions, i.e. this is the minimum number of respondents contributing to any one particular dimension.
 (e) Includes rheumatoid arthritis, osteoarthritis and arthritis n.e.c.
 (f) Includes disorders of the vertebral disc, back trouble unspecified, and curvature of the spine.
 (g) Includes complications of surgical and medical care, fractures, dislocations, sprains and strains, internal injuries, open wounds, bruising and crushing, foreign bodies, burns and scalds, poisoning (other than food), other injuries, undefined injuries, hangover, other symptoms and ill defined conditions.

SF36 SCALE PROFILES, By Selected Types of Illness(a)



(a) Graphs on this page refer to data in table 10.

SF-36 HEALTH TRANSITION(a), By Age

Age group (years)	MALES										FEMALES										RESPONDENTS					
	Much better now		Somewhat better now		About the same		Somewhat worse now		Much worse now		Total		Much better now		Somewhat better now		About the same		Somewhat worse now		Much worse now		Total		Males	Females
	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	no.	no.
18-24	9.5	18.4	63.3	8.7	0.2	100.0	11.5	17.5	60.8	9.8	0.4	100.0	11.5	17.5	60.8	9.8	0.4	100.0	11.5	17.5	60.8	9.8	0.4	100.0	1,229	1,338
25-34	7.8	13.0	72.5	6.2	0.5	100.0	10.7	15.3	64.7	8.3	1.1	100.0	10.7	15.3	64.7	8.3	1.1	100.0	10.7	15.3	64.7	8.3	1.1	100.0	1,980	2,210
35-44	6.3	11.6	73.4	7.3	1.3	100.0	9.8	14.0	68.1	7.3	0.8	100.0	9.8	14.0	68.1	7.3	0.8	100.0	9.8	14.0	68.1	7.3	0.8	100.0	2,022	2,130
45-54	5.6	9.9	74.2	9.6	0.8	100.0	8.9	11.3	69.8	8.2	1.8	100.0	8.9	11.3	69.8	8.2	1.8	100.0	8.9	11.3	69.8	8.2	1.8	100.0	1,566	1,589
55-64	6.7	9.4	71.2	10.7	2.0	100.0	9.2	9.3	68.4	11.0	2.0	100.0	9.2	9.3	68.4	11.0	2.0	100.0	9.2	9.3	68.4	11.0	2.0	100.0	1,040	1,036
65-74	5.8	6.7	71.6	14.3	1.7	100.0	8.1	7.0	66.8	14.6	3.6	100.0	8.1	7.0	66.8	14.6	3.6	100.0	8.1	7.0	66.8	14.6	3.6	100.0	817	905
75 and over	4.6	5.7	63.8	22.4	3.5	100.0	6.0	5.5	66.5	18.3	3.8	100.0	6.0	5.5	66.5	18.3	3.8	100.0	6.0	5.5	66.5	18.3	3.8	100.0	357	557
Respondents	640	1,028	6,396	830	107	9,001	954	1,244	6,460	951	156	9,765	954	1,244	6,460	951	156	9,765	954	1,244	6,460	951	156	9,765	9,001	9,765

(a) Respondents rating of their health compared to one year previous. Percentages are based on weighted estimates.

SF-36 HEALTH TRANSITION(a), By Self-Assessed Health Status and Sex

Self assessed health status	MALES.....					FEMALES.....					RESPONDENTS.....				
	Much better now	Somewhat better now	About the same	Somewhat worse now	Much worse now	Total	Much better now	Somewhat better now	About the same	Somewhat worse now	Much worse now	Total	Males	Females	
	%	%	%	%	%	%	%	%	%	%	%	%	no.	no.	
Excellent	9.1	9.7	80.5	0.8	0.0	100.0	11.9	8.4	78.5	1.1	0.1	100.0	1 530	1 697	
Very good	8.5	13.5	74.2	3.7	0.2	100.0	11.6	13.4	70.4	4.4	0.3	100.0	3 311	3 644	
Good	5.2	12.4	71.4	10.7	0.3	100.0	8.4	13.9	65.7	11.4	0.6	100.0	2 870	3 000	
Fair	4.5	8.0	56.0	29.4	2.2	100.0	5.3	13.5	47.2	29.8	4.3	100.0	1 019	1 119	
Poor	3.6	4.5	33.5	35.7	22.7	100.0	1.2	5.3	29.2	37.7	26.7	100.0	267	300	
All	6.9	11.6	71.0	9.4	1.1	100.0	9.6	12.5	66.4	9.9	1.6	100.0	8 997	9 760	
Respondents	640	1 026	6 395	829	107	8 997	954	1 244	6 455	951	156	9 760	8 997	9 760	

(a) Respondents rating of their health compared to one year previous. Percentages are based on weighted estimates.

EXPLANATORY NOTES

INTRODUCTION

1 The 1995 National Health Survey (NHS) was the second in a series of regular five-yearly population surveys designed to obtain national benchmark information on a range of health-related issues and to enable the monitoring of trends in health over time. The 1995 survey was conducted throughout the 12 month period February 1995 to January 1996.

2 Topics covered in the survey included recent illness and long-term conditions; use of health services; use of medications and vitamins or minerals; days away from work and school and other days of reduced activity; smoking, alcohol consumption and exercise; height and weight; sun protection; breastfeeding; supplementary women's health issues; and injury accidents. An extensive range of demographic and socioeconomic information was also obtained.

3 The SF-36 questionnaire was included in the 1995 survey for the first time to establish population-based benchmarks for the instrument in Australia, and to complement other indicators of general health and wellbeing obtained by the survey.

4 The information contained in this publication is based on information obtained from a subsample of NHS respondents, comprising approximately 18,800 adult residents of private dwellings. Details of the concepts, methodologies and procedures used in the NHS are provided in *National Health Survey: Users' Guide, 1995* (Cat. no. 4363.0).

INTERPRETATION

5 SF-36 results are presented in the form of weighted mean scores (using survey weights from the NHS) out of 100 for each health dimension, where a higher score indicates a better state of health and wellbeing, as shown in the following table.

EXPLANATORY NOTES *continued*

Content-based descriptions of lowest and highest scale scores

MEANING OF SCORES.....		
	<i>Lowest possible (floor)</i>	<i>Highest possible (ceiling)</i>
Scale	zero	100
Physical functioning	Limited a lot in performing all physical activities including bathing or dressing due to health	Performs all types of physical activities including the most vigorous without limitations due to health
Role—physical	Problems with work or other daily activities as a result of physical health	No problems with work or other daily activities as a result of physical health
Bodily pain	Very severe and extremely limiting pain	No pain or limitations due to pain
General health	Evaluates personal health as poor and believes it is likely to get worse	Evaluates personal health as excellent
Vitality	Feel tired and worn out all of the time	Feels full of pep and energy all of the time
Social functioning	Extreme and frequent interference with normal social activities due to physical or emotional problems	Performs normal social activities without interference due to physical or emotional problems
Role—emotional	Problems with work or other daily activities as a result of emotional problems	No problems with work or other daily activities as a result of emotional problems
Mental health	Feelings of nervousness and depression all of the time	Feels peaceful, happy, calm all of the time

Source: J.E. Ware, K.K. Snow, M. Kosinski & B. Gandek, *SF-36 Health Survey Manual & Interpretation Guide*, The Health Institute, New England Medical Center, Boston, Massachusetts, 1993, Chp 9, p. 2

6 In most cases data presented in this publication have been age (and sex) standardised to the 1995 Australian population as estimated from the NHS (see paragraph 19). The dimensions are arranged in standard order from those most sensitive to differences in physical health through to those most sensitive to differences in mental health. Mean values for different SF-36 dimensions cannot be compared, because each dimension is created in a different way and is independent of other dimensions; rather, mean values for the same dimension for different population groups can be compared.

7 The SF-36 data are presented in tables and in line graphs. The line graph has become the conventional way of presenting SF-36 score profiles. This line represents the score profile for the particular population group. It is important to note that points on the same line should not be compared and the points do not form a trend. Instead comparison should be made between one line which represents the SF-36 scale profile of one population and another line which represents the profile of a different population.

EXPLANATORY NOTES *continued*

RELIABILITY OF ESTIMATES

8 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 the figures that would have been produced if all dwellings had been included in the survey.

Standard errors

9 One measure of the likely difference is given by the standard error, which indicates the extent to which estimates might have varied by chance because only a sample of dwellings was included. Standard errors of the mean scores have been derived, and in this publication are shown adjacent to the mean score to which they relate. The standard error of the mean is an estimate of the variability of the estimated mean.

10 Standard errors have been calculated using the formulas below.

For unstandardised means, the standard error =

$$\sqrt{\frac{\text{weighted variance} \times 2.0}{\text{No. respondents contributing to mean}}}$$

For age standardised means, the standard error =

$$\sqrt{\sum_i \frac{p_i^2 \times S_i^2}{P^2}}$$

Where p_i^2 = the square of the population count for the standard population in age group i

S_i^2 = the estimated variance of the unstandardised estimate of the mean for a particular age-group i , adjusted for survey design effect

P^2 = the square of the total population count for the standard population

11 A design effect of 2.0 is included in the calculations to account for the difference between the actual sampling used in this survey and simple random sampling. This value was used by C.E. Stevenson in his analysis of SF-36 data from the 1994-1995 ABS Population Survey Monitor (C.E. Stevenson, *SF-36: Interim norms for Australian data*, AIHW, Canberra, 1996).

12 For age and sex standardised means, the same formula is used as for age standardised means but the subscript refers to particular age and sex groups rather than particular age groups.

Non-response

13 A subsample of 19,785 respondents to the NHS aged 18 years or more were selected for the SF-36. Where possible, respondents were asked to complete the SF-36 questionnaire and return it to the interviewer prior to participating in the NHS interview. Of those selected for the SF-36, 15,938 (80.6%) returned fully completed forms, 2,888 (14.6%) returned partially completed forms. The remainder, 959 (4.8%) returned blank forms. The response rate (fully or partially completed forms) was therefore 95.2%, in the context of an overall household response rate of 91.5% achieved for the NHS. The 959 non-responses were made up of 278 refusals, 264 non-contacts, 177 language difficulties and 240 other reasons.

EXPLANATORY NOTES *continued*

Non-response *continued*

14 Most of the questionnaires (95% of those responding) were self-administered. However, 901 were administered by face-to-face interview (5% of those responding). Of these, 368 were administered by the interviewer because of language problems, 533 because of other problems. In this publication, no distinction is made by mode of collection; however, data are available enabling separate analysis if required.

15 Of the 2,888 respondents who returned partially completed questionnaires, 1,451 (8% of those responding) did not answer question 9i (how much of the time during the past 4 weeks have you felt tired?). It is probable that this question was missed because of the printed layout of the questionnaire used by the Australian Bureau of Statistics (ABS). The next highest number of missing responses for a question was question 3c (does your health now limit you in lifting or carrying groceries?) with 415 missing. All other questions had less than 275 missing values. Under the scoring system developed by the authors of the SF-36, missing item values are substituted with imputed values if the number of missing items is less than or equal to half of the total number of items for that dimension. The amount of imputation is described in the following table.

SF-36 Scales

	<i>Physical function</i>	<i>Role physical</i>	<i>Bodily pain</i>	<i>General health</i>	<i>Vitality</i>	<i>Social function</i>	<i>Role emotional</i>	<i>Mental health</i>
	no.	no.	no.	no.	no.	no.	no.	no.
Items contributing to scale	10	4	2	5	4	2	3	5
Respondents answering all questions in a scale	17 808	18 505	18 633	18 440	17 204	18 576	18 487	18 202
Respondents with								
1 imputed item	705	168	66	242	1 423	213	133	409
2 imputed items	130	37	—	33	101	—	—	65
3 imputed items	47	—	—	—	—	—	—	—
4 imputed items	31	—	—	—	—	—	—	—
5 imputed items	13	—	—	—	—	—	—	—
Respondents answering insufficient items to calculate a scale value	92	116	127	111	98	37	206	150
Respondents returning blank forms	959	959	959	959	959	959	959	959

Self-reported data

16 Information recorded in the NHS is as reported by respondents, and hence may differ from that which might be obtained from other sources or via other methodologies. Reported information on medical conditions was not medically verified, and was not necessarily based on diagnoses by a medical practitioner.

17 Conditions which have a considerable effect on people are likely to be better reported than those which have little effect. Some people may be unaware of minor conditions which have not been diagnosed. There may also be some instances of under-reporting as a consequence of respondents being unwilling to talk about a particular condition at an interview.

18 Some care should be taken in interpreting counts of medical conditions experienced, since to a degree the counts are a function of the conditions classifications used in the NHS. This classification was developed for the survey based on the 9th Revision of the International Classification of Diseases (ICD9). Because the NHS classification uses broad level condition categories, the counts of conditions provided by the survey are lower than, for example, the count that would have been obtained had the full ICD9 been used.

STANDARDISATION

19 Standardisation is a technique used to enable comparisons of estimates for populations which have different characteristics. Where indicated in this publication, mean scores shown have been age standardised or age and sex standardised. These standardised means are those which would occur in different populations if they had the same age and sex composition as the standard population. Unless otherwise specified, the standard population used in this publication is the total Australian population as estimated from the 1995 NHS (see Appendix B).

20 The method used for age (and sex) standardisation of results in this publication was direct standardisation, calculated as follows:

The age-standardised estimate of the mean is $\sum_i \frac{p_i \times m_i}{P}$

where p_i is the population count for the standard population in age group i

m_i is the unstandardised mean score in age group i

P is the total population count for the standard population

Factor analysis

21 The calculation of Physical Component Summary (PCS) and Mental Component Summary (MCS) scores involved three steps. First the eight SF-36 scales were standardised using a Z-score transformation and means and standard deviations from the 1995 NHS. Second the Z-scores were aggregated using factor score coefficients from the 1995 NHS as weights. Finally the aggregated summary scores were transformed to have a mean of 50 and a standard deviation of 10. The aim of this process is to produce two summary scales from the original eight scales without substantial loss of information. The means, standard deviations, and factor score coefficients used in these calculations were obtained from the 1995 NHS, using unweighted data from the 18,468 SF-36 respondents who had a non-missing value for all eight SF-36 scales. Principal components factor analysis with varimax rotation (specifying two factors to be extracted) was performed using SAS software.

EXPLANATORY NOTES *continued*

Derivation of PCS and MCS scores

	Mean	Standard Deviation	FACTOR SCORE COEFFICIENTS	
			PCS	MCS
Physical function	83.46290	23.22864	0.47268	-0.24358
Role limits—physical	80.28166	34.83783	0.38210	-0.13410
Bodily pain	76.94163	24.83714	0.36750	-0.12414
General health	71.81575	20.35165	0.18993	0.05271
Vitality	64.47694	19.77187	-0.01883	0.27100
Social function	85.05929	22.29047	-0.01324	0.26460
Role limits—emotion	83.19165	32.15215	-0.14971	0.35922
Mental health	75.97772	16.96210	-0.27145	0.48753

SELECTED VARIABLES

Equivalent income

22 Differences in household types and their income requirements can be taken into account by the application of equivalence scales. These scales are a set of ratios which when applied to the income of different household types produce standardised estimates of income which reflect the households' relative standard of living. The scales used to produce equivalent income groups in this publication are the Henderson Simplified Equivalence Scales.

Socioeconomic disadvantage

23 The Index of Relative Socio-Economic Disadvantage (IRSED) is one of five indexes (Socio-Economic Indexes for Areas) compiled by the ABS indicating different socioeconomic conditions in geographic areas. This index summarises variables related to the economic resources of households, education and occupation, and focuses on attributes such as low income, low educational attainment and high unemployment. A higher score on this index indicates that the area has characteristics such as fewer low income families and fewer people with little training or in unskilled occupations. For further information about this index, see *Information Paper: 1991 Census—Socio-Economic Indexes for Areas* (Cat. no. 2912.0)

24 In this publication, the IRSED scores are grouped by quintile, and the mean SF-36 scores are calculated for persons living in areas classified to each quintile.

EXPLANATORY NOTES *continued*

Body mass index

25 Based on the height and weight reported by respondents, body mass was derived using Quetelet's body mass index which is calculated as weight divided by the square of height. Scores were grouped into four categories, defined by the National Health and Medical Research Council as shown below.

Category	Body mass index score (kg/m ²)
Underweight	<20
Acceptable weight	20-25
Overweight	>25-30
Obese	>30

Exercise level

26 In the NHS, exercise refers to physical exercise undertaken for recreation, sport or health/fitness purposes during the two weeks prior to interview. Respondents were asked whether they did any: walking for sport, recreation or fitness; moderate exercise (apart from walking); and vigorous exercise.

27 The exercise level was calculated as follows: number of times the activity was undertaken; multiplied by average time (minutes) per session; multiplied by intensity. Intensity values were estimated as 3.5 for walking, 5.0 for moderate exercise and 9.0 for vigorous exercise. A score was derived for each of the three categories of exercise and then summed to provide a total for the respondent for that two week period. Respondents were grouped into exercise levels according to their score as shown below.

Exercise level	Score
Sedentary	< 100
Low exercise level	100 to <1 600
Moderate exercise level	1 600 to 3 200 or >3 200 and <2 hours vigorous exercise
High exercise level	>3 200 and 2 hours or more of vigorous exercise

ACKNOWLEDGMENT

28 ABS publications 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*.

EXPLANATORY NOTES *continued*

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RELATED PUBLICATIONS

29 For further information about the SF-36 see:

Ware, J.E., Snow, K.K., Kosinski, M. & Gandek, B. 1993, *SF-36 Health Survey Manual & Interpretation Guide*, The Health Institute, New England Medical Center, Boston, Massachusetts.

Ware, J.E., Kosinski, M. & Keller, S.D. 1994, *SF-36 Physical and Mental Health Summary Scales*, The Health Institute, New England Medical Center, Boston, Massachusetts.

30 This publication is one of a series of publications and other releases of information from the 1995 NHS. Information about all the publications and other products to be released is contained in the brochure *National Health Survey: Guide to Products and Services* which is available free of charge from any office of the ABS. Other ABS publications which may be of interest include:

National Health Survey: Users' Guide, 1995 (Cat. no. 4363.0)

National Health Survey: Summary of Results, 1995 (Cat. no. 4364.0)

31 Current publications produced by the ABS are listed in the *Catalogue of Publications and Products* (Cat. no. 1101.0). The ABS also issues, on Tuesdays and Fridays, a *Release Advice* (Cat. no. 1105.0) which lists publications to be released in the next few days. The Catalogue and Release Advice are available from any ABS office.

32 Other unpublished SF-36 data may be available on request. It should be noted that due to subsampling arrangements within the NHS, SF-36 results are not available for cross classification with some topics collected in the survey, including alcohol consumption, supplementary women's health topics, health insurance and education qualification. Inquiries should be made to the contact shown at the front of this publication.

33 In addition to publications and standard sets of unpublished tables, unpublished data from the survey is also available:

- through special customised tables produced on request;
- on a computer file containing unidentified unit record data; and
- through consultancy service.

SYMBOLS AND OTHER USAGES

ABS	Australian Bureau of Statistics
ICD 9	International Classification of Diseases
IRSED	Index of Relative Socio-Economic Disadvantage
MCS	Mental Component Summary
n.e.c.	not elsewhere classified
NHS	National Health Survey
PCS	Physical Component Summary
SE	standard error
SF-36	Short Form, 36 questions
—	nil or rounded to zero
..	not applicable

APPENDIX A Questions Contributing to Each Dimension

Questions	Health dimension
Extent limited by health in ability to Perform vigorous activities Perform moderate activities Lift, carry groceries Climb several flights of stairs Climb one flight of stairs Bend, kneel, stoop Walk more than one km Walk half a km Walk 100 metres Bathe, dress	Physical Functioning
As a result of physical health, whether Cut down time on activities Accomplished less Limited in kind of activities Had difficulty performing activities	Role-Physical
Magnitude of pain Extent of pain interference with activities	Bodily Pain
Self-assessed health status Whether Get sick easier than others As healthy as others Expect health to get worse Health excellent	General Health
Time felt Full of pep/life Had lots of energy Worn out Tired	Vitality
Impact of health/emotional problems on Extent of social activities Time interfered with social activities	Social Functioning
As a result of emotional problems, whether Cut down time on activities Accomplished less Not as careful in performing activities	Role-Emotional
Time felt Nervous Down in dumps Peaceful Down Happy	Mental Health
Change in health	Health Transition

Source: J.E. Ware, M. Kosinski, & S.D. Keller, 'SF-36 Physical & Mental Health Summary Scales: A User's Manual', Boston, MA, The Health Institute, 1994.

APPENDIX B Population used for Standardisation

Sex	Age group (years)	Population
Male	18-24	969 479
	25-34	1 422 088
	35-44	1 368 295
	45-54	1 135 558
	55-64	758 524
	65-74	620 836
	75+	315 936
Female	18-24	942 296
	25-34	1 419 619
	35-44	1 373 505
	45-54	1 096 699
	55-64	748 851
	65-74	727 141
	75+	491 053

GLOSSARY

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25th percentile	For any particular scale this is the value below which 25% of respondents' scale values fall.
50th percentile	For any particular scale this is the value below which 50% of respondents' scale values fall.
75th percentile	For any particular scale this is the value below which 75% of respondents' scale values fall.
Age standardisation	A technique used when comparing estimates for populations which have different age structures.
Ceiling (%)	This is the percentage of respondents with the maximum score (100) for any particular scale.
Floor (%)	This is the percentage of respondents with the minimum score (0) for any particular scale.
Long-term conditions	Medical conditions as reported by respondents (illness, injury or disability) which have lasted at least six months, or which the respondent expects to last for six months or more including: <ul style="list-style-type: none">▪ long-term conditions from which the respondent experienced infrequent or spasmodic attacks e.g. asthma;▪ long-term conditions which may be under control through use of medications or other treatment e.g. diabetes, epilepsy;▪ conditions which, although present, may not be generally considered illness because they are not necessarily debilitating e.g. reduced eyesight; and▪ long-term and permanent impairments or disabilities.
Mean	In this publication, all means are weighted means, using a specific SF-36 weight created for those selected for the SF-36 questionnaire.
Mental Component Summary Physical Component Summary	Mental Component Summary (MCS) and Physical Component Summary (PCS) are summary measures calculated using data from the eight SF-36 scales. In this publication, MCS and PCS are calculated using means, standard deviations, and factor score coefficients obtained from the (unweighted) 1995 National Health Survey, rather than from the general United States population as the authors of the SF-36 recommend: see paragraph 21 of Explanatory Notes.
Observations contributing to the mean	The number of observations which are included in the calculation of the mean score for any particular scale.
Recent Conditions	Medical conditions as reported by respondents (illness, injury or disability) experienced in the two weeks prior to interview. May include the long-term conditions experienced in the period.

GLOSSARY *continued*

Serious physical condition

Defined in this publication to include the following conditions:

- | | |
|---|---|
| Skin cancer | Ill-defined signs and symptoms of heart conditions |
| Breast cancer | Other cerebrovascular disease |
| Neoplasms (n.e.c) | Other diseases of the circulatory system |
| Thyroid disease | Bronchitis/Emphysema |
| Gout | Asthma |
| Diabetes Mellitus — type 1 | Ulcer |
| Diabetes Mellitus — type 2 | Hernia |
| Diabetes, unspecified | Kidney disease |
| High blood sugar | Complications of pregnancy, childbirth and the puerperium |
| Glaucoma | Psoriasis |
| Epilepsy | Rheumatoid arthritis |
| Paralysis | Osteoarthritis |
| Other diseases of the nervous system | Arthritis (n.e.c) |
| Other hereditary and degenerative disorders of the nervous system | Rheumatism |
| Atherosclerosis | Congenital abnormalities |
| Hypertension | Fractures (any location) |
| Heart disease | Internal injuries |
| Stroke (including after effects of) | |

Standard deviation

An estimate of the variability of individual scale values. Weighted as for means in this publication.

Standard error of the mean

An estimate of the variability of the mean scale values, corrected for sample design in this publication. The standard error of the mean can be used to construct confidence intervals for the true value of the population mean.

Type of conditions

All reported recent and long-term conditions and other reasons for health-related actions were coded to a list of 132 selected conditions/reasons for action developed by the ABS. This classification was based on the ninth Revision (1975) of the International Classification of Diseases (ICD 9), but was modified to take account of the fact that information obtained is 'as reported' by respondents. Special codes were created for some non-illness reasons for actions (e.g. check-up, preventive measure) and for some frequently reported conditions which could not be readily coded to ICD categories because insufficient detail was provided (e.g. back problems, virus, infection).





For more information . . .

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