Quality Of Life in South Australia as Measured by the SF12 Health Status Questionnaire
Population Norms For 2003
Trends From 1997 - 2003

Jodie Avery
Eleonora Dal Grande
Anne Taylor

Population Research and Outcome Studies Unit
Department of Human Services
South Australia
March 2004
ACKNOWLEDGMENTS

This work is copyright. It may be reproduced and the Population Research and Outcome Studies (PROS) welcomes requests for permission to reproduce in the whole or in part for work, study or training purposes subject to the inclusion of an acknowledgment of the source and not commercial use or sale. PROS will only accept responsibility for data analysis conducted by PROS staff or under PROS supervision.

Published March 2004 by the South Australian Department of Human Services
Population Research and Outcome Studies, Strategic Planning and Research Branch
PO Box 287 Rundle Mall 5000
South Australia, Australia

National Library of Australia Cataloguing in Publication entry:

Avery, Jodie.
Quality of life in South Australia as measured by the SF-12 Health Status Questionnaire: population norms for 2003: trends from 1997-2003.


614.429423

In accordance with the Copyright Act 1968 a copy of each book published must be lodged with the National Library. Under relevant State or Territory Legislation a copy must also be lodged with the appropriate library or libraries in the state of publication. For information about Legal Deposit, see the website at: http://www.nla.gov.au/services/ldeposit.html or contact the Legal Deposit Unit, National Library of Australia on 02 6262 1312.

This document can be found online at:
# TABLE OF CONTENTS

TABLE OF CONTENTS ........................................................................................................ 3

LIST OF TABLES ............................................................................................................ 5

LIST OF FIGURES ......................................................................................................... 6

EXECUTIVE SUMMARY ............................................................................................... 9

CHAPTER 1: INTRODUCTION .................................................................................... 13

1.1 Background to the SF-12 .................................................................................. 13

CHAPTER 2: METHODS ........................................................................................... 15

2.1 Data Sources ....................................................................................................... 15

2.2 Data Analysis ...................................................................................................... 16

CHAPTER 3: SF-12 POPULATION NORMS FOR SOUTH AUSTRALIA ............. 19

CHAPTER 4: SF-12 POPULATION TRENDS FOR SOUTH AUSTRALIA .......... 27

CHAPTER 5: SF-12 BY VARIOUS CHRONIC CONDITIONS .......................... 35

5.1 Diabetes ............................................................................................................. 36

5.2 Arthritis ............................................................................................................. 38

5.3 Heart Disease ................................................................................................. 40

5.4 Stroke ............................................................................................................... 42

5.5 Cancer ............................................................................................................. 44

5.6 Osteoporosis ................................................................................................. 46

5.7 Asthma ............................................................................................................. 48

5.8 Other Respiratory Condition ......................................................................... 50

5.9 Mental Health Condition .............................................................................. 52

5.10 Co-morbidity ................................................................................................. 54

CHAPTER 6: SF-12 BY HEALTH RISK FACTORS .............................................. 57
LIST OF TABLES

Table 3.1: 2003 SF-12 Norms for the general South Australian population, aged 18 years and over ................................................................. 20
Table 3.2: 2003 SF-12 Norms for the general South Australian population, by age........... 22
Table 3.3: 2003 SF-12 Norms for the general South Australian MALE population, by age... 23
Table 3.4: 2003 SF-12 Norms for the general South Australian FEMALE population, by age .................................................................................. 24
Table 4.1: Mean SF-12 scores, general South Australian population, aged 18 & over, by year .................................................................................. 27
Table 4.2: Mean STANDARDISED SF-12 scores (95% confidence interval of the mean) for the general South Australian population, aged 18 and over, by year .......................................................... 28
Table 5.1: Mean SF-12 scores for South Australians doctor diagnosed with diabetes aged 18 years and over, 2000. ...................................................... 36
Table 5.2: Age-sex adjusted mean SF-12 scores for South Australians diagnosed with diabetes aged 18 years and over, 2000. ........................................... 36
Table 5.3: Mean SF-12 scores for South Australians diagnosed with arthritis aged 18 years and over, 2000. ................................................................. 38
Table 5.4: Age sex adjusted Mean SF-12 scores for South Australians diagnosed with arthritis aged 18 years and over, 2000. ........................................... 38
Table 5.5: Mean SF-12 scores for South Australians diagnosed with heart disease aged 18 years and over, 2000. ......................................................... 40
Table 5.6: Age-sex adjusted Mean SF-12 scores for South Australians diagnosed with heart disease aged 18 years and over, 2000. ........................................ 40
Table 5.7: Mean SF-12 scores for South Australians diagnosed with Stroke aged 18 years and over, 2000. ................................................................. 42
Table 5.8: Age-sex adjusted Mean SF-12 scores for South Australians diagnosed with Stroke aged 18 years and over, 2000. ........................................... 42
Table 5.9: Mean SF-12 scores for South Australians diagnosed with Cancer aged 18 years and over, 2000. ................................................................. 44
Table 5.10: Age sex adjusted Mean SF-12 scores for South Australians diagnosed with cancer aged 18 years and over, 2000. ................................................ 44
Table 5.11: Mean SF-12 scores for South Australians diagnosed with osteoporosis aged 18 years and over, 2000. ............................................................... 46
Table 5.12: Age sex adjusted Mean SF-12 scores for South Australians diagnosed with Osteoporosis aged 18 years and over, 2000. ........................................ 46
Table 5.13: Mean SF-12 scores for South Australians diagnosed with current asthma aged 18 years and over, 2000. ....................................................... 48
Table 5.14: Age sex adjusted Mean SF-12 scores for South Australians with current asthma aged 18 years and over, 2000. ............................................... 48
Table 5.15: Mean SF-12 scores for South Australians currently diagnosed with any other Respiratory Condition aged 18 years and over, 2000. ....................... 50
Table 5.16: Age sex adjusted Mean SF-12 scores for South Australians with current Respiratory condition aged 18 years and over, 2000. ......................... 50
Table 5.17: Mean SF-12 scores for South Australians diagnosed with current Mental Health Condition aged 18 years and over, 2000. ......................... 52
Table 5.18: Age sex adjusted Mean SF-12 scores for South Australians with current mental health condition aged 18 years and over, 2000. ....................... 53
Table 5.19: Mean SF-12 scores for South Australians diagnosed with at least one or more chronic conditions aged 18 years and over, 2000. ................................ 54
Table 5.20: Age-sex adjusted Mean SF-12 scores for South Australians with at least one or more chronic conditions aged 18 years and over, 2000. ....................... 55
Table 6.1: Mean SF-12 scores for South Australians diagnosed with current high blood pressure aged 18 years and over, 2000. ........................................ 58
Table 6.2: Age sex adjusted SF-12 Mean scores for South Australians with current high blood pressure aged 18 years and over, 2000 ......................... 58
Table 6.3: Mean SF-12 scores for South Australians diagnosed with current high cholesterol aged 18 years and over, 2000 ............................................ 60
Table 6.4: Age-sex adjusted Mean SF-12 scores for South Australians with current high cholesterol aged 18 years and over, 2000. ................................. 60
Table 6.5: Mean SF-12 scores for South Australians by body mass index category aged 18 years and over, 2000 ........................................................................................................................................ 62
Table 6.6: Age-sex adjusted Mean SF-12 scores for South Australians by body mass index category aged 18 years and over, 2000 ........................................................................................................... 63
Table 6.7: Mean SF-12 scores for South Australians by smoking status aged 18 years and over, 2000 ........................................................................................................................................ 64
Table 6.8: Age-sex adjusted SF-12 Mean scores for South Australians by smoking status aged 18 years and over, 2000 .................................................................................................................................... 65
Table 6.9: Mean SF-12 scores for South Australians in each drinking category aged 18 years and over, 2000 ..................................................................................................................................... 66
Table 6.10: Age-sex adjusted Mean SF-12 scores for South Australians in each drinking category aged 18 years and over, 2000 ........................................................................................................ 67
Table 6.11: Mean SF-12 scores for South Australians with at least one or more health risk factors conditions aged 18 years and over, 2000 ..................................................................................................................................... 68
Table 6.12: Age sex adjusted SF-12 Mean scores for South Australians with at least one or more Health Risk Factors aged 18 years and over, 2000 ................................................................................................ 69
Table 7.1: Proportion of respondents in each South Australian Division of General Practice aged 18 years and over. .................................................................................................................. 71
Table 7.2: Mean SF-12 scores for respondents in each South Australian Division of General Practice. ................................................................................................................................................. 72
Table 7.3: Age sex adjusted Mean SF-12 scores for each South Australian Division of General Practice aged 18 years and over, 2000 ........................................................................................................ 73
Table 7.4: Mean SF-12 scores for South Australians for each SEIFA IRSD quintile, 2000 ......................................................................................................................................................... 75
Table 7.5: Age-sex adjusted Mean SF-12 scores for South Australians for each SEIFA IRSD quintile aged 18 years and over, 2000 ........................................................................................................ 76
Table 7.6: Mean SF-12 scores for South Australians in each ARIA Category aged 18 years and over, 2000 ........................................................................................................................................ 77
Table 7.7: Age-sex adjusted Mean SF-12 scores for South Australians in each ARIA Category aged 18 years and over, 2000 ........................................................................................................ 78

LIST OF FIGURES

Figure 3.1: Frequency Distribution for SF-12 Physical Component Summary (PCS) scores, 2003 ........................................................................................................................................................................ 19
Figure 3.2: Frequency Distribution for SF-12 Mental Component Summary (MCS) scores, 2003 ......................................................................................................................................................... 19
Figure 3.3: 2003 SF-12 Norms for the general South Australian population, overall, Males and Females, aged 18 years and over. ........................................................................................................ 20
Figure 3.4: 2003 SF-12 Norms for the general South Australian population, by age ............ 21
Figure 3.5: 2003 SF-12 Norms for the general MALE South Australian population by age... 22
Figure 3.6: 2003 SF-12 Norms for the general FEMALE South Australian population by age 23
Figure 4.1: Mean STANDARDISED SF-12 Physical Component Summary (PCS) scores for the general South Australian population, aged 18 years and over by year...................................... 28
Figure 4.2: Mean STANDARDISED SF-12 Mental Component Summary (MCS) scores for the general South Australian population, aged 18 years and over by year...................................... 28
Figure 4.3: Mean SF-12 Physical Component Summary (PCS) scores for the general population, aged 18 years and over by year, for each gender and age group......................... 29
Figure 4.4: Mean SF-12 Mental Component Summary (MCS) scores for the general population, aged 18 years and over by year, for each gender and age group............... 29
Figure 5.1: Age-sex adjusted 2000 Mean SF-12 scores for South Australians diagnosed with diabetes, aged 18 years and over. ........................................................................................................... 32
Figure 5.2: Age-sex adjusted 2000 Mean SF-12 scores for South Australians diagnosed with arthritis, aged 18 years and over. ........................................................................................................... 37
Figure 5.3: Age-sex adjusted 2000 mean SF-12 scores for South Australians diagnosed with heart disease, aged 18 years and over. ........................................................................................................ 41
Figure 5.4: Age-sex adjusted 2000 Mean SF-12 scores for South Australians diagnosed with stroke, aged 18 years and over ................................................................. 43
Figure 5.5: Age-sex adjusted 2000 Mean SF-12 scores for South Australians diagnosed with cancer, aged 18 years and over ................................................................. 45
Figure 5.6: Age-sex adjusted mean 2000 SF-12 scores for South Australians diagnosed with osteoporosis, aged 18 years and over ............................................................. 47
Figure 5.7: Age-sex adjusted 2000 mean SF-12 scores for South Australians diagnosed with asthma, aged 18 years and over ................................................................. 49
Figure 5.8: Age-sex adjusted 2000 mean SF-12 scores for South Australians diagnosed with respiratory condition, aged 18 years and over .............................................. 51
Figure 5.9: Age-sex adjusted 2000 mean SF-12 scores for South Australians with current mental health condition, aged 18 years and over ........................................... 53
Figure 5.10: Age-sex adjusted 2000 SF-12 mean scores for South Australians with one or more chronic conditions, aged 18 years and over .............................................. 55
Figure 6.1: Age-sex adjusted 2000 mean SF-12 scores for South Australians diagnosed with high blood pressure, aged 18 years and over .................................................. 59
Figure 6.2: Age-sex adjusted 2000 mean SF-12 scores for South Australians diagnosed with high cholesterol aged 18 years and over ......................................................... 61
Figure 6.3: Age-sex adjusted 2000 mean SF-12 scores for South Australians by body mass index category, aged 18 years and over ............................................................... 63
Figure 6.4: Age-sex adjusted 2000 mean SF-12 scores for South Australians by smoking status, aged 18 years and over ................................................................. 65
Figure 6.5: Age-sex adjusted 2000 Mean SF-12 scores for South Australians in the each drinking category aged 18 years and over, overall and age adjusted by sex ............... 67
Figure 6.6: Age-sex adjusted 2000 SF-12 mean scores for South Australians with one or more Health Risk Factors, aged 18 years and over ........................................... 69
Figure 7.1: Age-sex adjusted 2000 mean SF-12 Physical Component Summary scores for South Australia in each Division of General Practice, aged 18 years and over .......... 74
Figure 7.2: Age-sex adjusted 2000 mean SF-12 Mental Component Summary scores for South Australia in each Division of General Practice, aged 18 years and over .......... 74
Figure 7.3: Age-sex adjusted 2000 SF-12 mean scores for South Australians for each SEIFA quintile, aged 18 years and over ................................................................. 76
Figure 7.4 Age-sex adjusted Mean SF-12 scores for South Australians living each ARIA Category aged 18 years and over, 2000 ................................................................. 78
EXECUTIVE SUMMARY

Main Findings

This report summarises the Short Form 12 (SF-12) norms from surveys conducted by Population Research and Outcome Studies (PROS), South Australian Department of Human Services. The norms in this report are primarily obtained from the 2003 July Health Monitor, as well as the South Australian results from the 2000 Wellbeing Study, in order to obtain difference norms for chronic conditions, risk factors and regions. The main results are highlighted below.

The SF-12 was derived from twelve questions of the SF-36. MCS (Mental Component Summary) and PCS (Physical Component Summary) scales were calculated from these questions, in order to provide a summary measure of health status. The two scores range between 0 and 100, with increasing values equating to better health.

South Australian SF-12 Population Norms

- Women aged 18 years and over in South Australia had statistically significantly lower scores on both the SF-12 summary scores PCS and MCS than men.
- In general, norms for the PCS of the SF-12 are statistically significantly lower in the older age groups.
- When PCS was analysed by both males and females by all age groups, a decline with age was evident for both genders for the norms, however this decline is not statistically significant.
- Norms for the MCS remained consistent across all ages, with no statistically significant differences, even when adjusted for sex.

South Australian SF-12 Population Trends Over Time

- When standardised to the 2001 South Australian Census by age and sex, the standardised mean PCS score for the year 2000 was statistically significantly
lower than those for 1997 and 1998. However, the MCS summary scores did not vary significantly over time (1997, 1998, 2000 and 2003).

**South Australian SF-12 Scores By Chronic Conditions**

- People diagnosed with diabetes, arthritis, stroke, cancer, osteoporosis and current asthma scored statistically significantly lower on the PCS than people who do not have these conditions. However, there were no statistically significant differences on the MCS between people with these conditions and those who did not have them.
- People with heart disease, a current respiratory condition or a current mental health condition scored statistically significantly lower than those without these conditions, on both summary scores of the SF-12.
- South Australians with one or more chronic conditions scored statistically significantly lower than people who did not have any chronic conditions on both summary scores of the SF-12.
- In general, those who had an increasing number of chronic conditions exhibited a statistically significant decline in MCS scores, but this effect was not demonstrated in their PCS scores.

**South Australian SF-12 Scores By Health Risk Factors**

- People with current high blood pressure scored statistically significantly lower on the PCS than people without this risk factor, but there were no statistically significant differences on the MCS between people with and without current high blood pressure.
- People with current high cholesterol scored statistically significantly lower on both summary scores than people who did not have current high cholesterol.
- People classified as obese according to their Body Mass Index (BMI) scored statistically significantly lower on the PCS than all other categories of BMI.
- Current smokers scored statistically significantly lower on the PCS than people who were non-smokers or ex-smokers. Ex-smokers score statistically significantly lower on the MCS than people who are current smokers or non-smokers.
Executive Summary

- Non-drinkers or people in the no risk alcohol drinking category, as well as those in the intermediate to very high risk category, scored statistically significantly lower on the PCS than people in the low drinking risk category. There were no statistically significant differences in the scores for the MCS between people in different drinking categories.
- South Australians with one or more health risk factors scored statistically significantly lower on the PCS than people who do not any health risk factors.
- People with two or more health risk factors score statistically significantly lower on the MCS scale than people who do not any health risk factors.

South Australian SF-12 Scores By Different Population Groups

- The highest scoring Divisions of General Practice for the PCS, were the Limestone Coast, Adelaide Western, and Flinders and Far North, Divisions of General Practice. The lowest scoring Divisions on the PCS were the Adelaide Northern, Riverland, and Murray Mallee Divisions of General Practice.
- Respondents in the Adelaide Northern Division of General Practice scored statistically significantly lower on the PCS scale than those than the Adelaide Western Division.
- The highest scores for MCS were evident in the Barossa, Mid North and Adelaide Hills Divisions of General Practice. The lowest scores on the MCS were in Adelaide Central and Eastern, Adelaide North Eastern, Adelaide Northern and Adelaide Western Divisions of General Practice.
- Respondents in the Barossa Division of General Practice scored statistically significantly higher on the MCS scale than Adelaide Central and Eastern, Adelaide Northern, Adelaide North East and Adelaide Western Division of General Practice.
- South Australians who fell into the lowest SEIFA quintile scored statistically significantly lower on both summary scores of the SF-12 than people who fell into the highest SEIFA quintile.
- There was no significant difference in the PCS summary score between people living in different ARIA categories.
- There was no significant difference in MCS scores between those living in Metropolitan and Remote areas, as defined by ARIA. However, those living in
Metropolitan areas scored statistically significantly lower on the MCS than people living in Rural areas.
CHAPTER 1: INTRODUCTION

1.1 Background to the SF-12

The Medical Outcomes Study Short Form 12 Health Survey (SF-12) was derived in the United States from the twelve questions of the SF-36, which make up the MCS (Mental Component Summary) and PCS (Physical Component Summary) scales\(^1,2\), in order to provide a shorter measure health status. The survey can be administered in two to three minutes, which saves both time and resources in large-scale population surveys. In the analysis of such surveys, it is often practical to use the two summary measures, MCS and PCS, derived from the SF-12, which are able to satisfactorily gauge the general health of the population\(^2\). The SF-36 has been validated in an Australian population\(^3\). However, it is possible to use the US version of the SF-12 for international comparability, using appropriate Australian general population weighting\(^4\), and the US version has been used in this report.

The SF-12 includes 12 questions from the original SF-36 that are summarised into two summary scores, the Mental Component Summary (MCS) and Physical Component Summary (PCS) scales\(^5\). The two scores range between 0 and 100, with increasing values equating to better health.

The SF-12 survey, from which the population norms in this document were derived, was administered as a part of the 2003 July South Australian Health Monitor (HM), a "user-pays" computer aided telephone interviewing (CATI) survey system that has been in operation since 1999. Norms for different chronic diseases, health risk factors and different geographical regions have also been derived from the South Australian component of the Collaborative Health and Wellbeing Study, 2000\(^6\).

The South Australian population norms presented in this report enable comparisons of results from other studies and population groups with the general population. This will be particularly useful when assessing changes in health outcomes for chronic diseases.

The SF-12 has also been included in recent Social and Environmental Risk Context Information System (SERCIS) Surveys\(^6,7,8,9\). These surveys have been undertaken by the Population Research and Outcome Studies Unit, of the South Australian
Department of Human Services. The information gained from these surveys will enable changes in the SF-12 norms to be monitored over time.
CHAPTER 2: METHODS

2.1 Data Sources

2.1.1 The South Australian Health Monitor

The South Australian Health Monitor is a "user-pays" telephone survey system that has been operational since 1999 and is administered by the Population Research and Outcome Studies (PROS), Department of Human Services\textsuperscript{10}. The Health Monitor is an "omnibus-type" service available to government and non-government organisations to obtain data on a range of health issues within South Australia (SA). The idea of an omnibus survey is that several organisations share the cost of conducting a survey.

Three regular SA-wide surveys are conducted each year. Additionally, other studies into particular aspects of health are conducted on an ad-hoc basis. These ad-hoc surveys may be conducted within South Australia, nationally, within a selection of states and territories, or within particular regions of South Australia. An example of the invitation letter sent to potential participants in the Health Monitor can be found in Appendix 1. A further description of the methodology for this survey has been included in Appendix 2, and the questionnaire used for the 2003 Health Monitor can be found in Appendix 3.

2.1.2 The Collaborative Health and Wellbeing Survey

The 2000 Collaborative Health and Wellbeing Survey\textsuperscript{6} was originally proposed to undertake a three state/territory CATI health and wellbeing survey (Western Australia, South Australia and Northern Territory) utilising the already established South Australian infrastructure.

The overall aim of the collaboration was to demonstrate the capacity for a public health survey partnership between the three participating states and territory and the Commonwealth.

A management group, was established to oversee the survey process. Each individual state/territory also brought their own research teams and local experts to assist in the design of the questionnaire.
South Australia conducted the telephone interviewing on behalf of the other states using SERCIS (Social, Environmental and Risk Context Information System) which is a telephone monitoring system designed to provide high quality data on large samples of the South Australian/Australian population. SERCIS is managed within the Population Research and Outcome Studies (PROS) Unit of the South Australian Department of Human Services and overseen by an Advisory Committee. An example of the invitation letter sent to potential participants in the Health and Wellbeing Survey can be found in Appendix 4. A further description of the methodology has been included in Appendix 5, and the questionnaire used for this survey can be found in Appendix 6.

### 2.1.3 The Social and Environmental Risk Context Information System

The South Australian Social and Environmental Risk Context Information System (SERCIS) is a telephone survey system operating since 1995 and is administered by the Population Research and Outcome Studies Unit, Department of Human Services. SERCIS is used to conduct epidemiological surveys into particular health topics amongst randomly selected populations of South Australia.

Three other SERCIS surveys have used the SF-12 and are included here to examine trends over time for PCS and MCS scores. These surveys were undertaken in June 1997, August 1998 and November 20007,8,9.

### 2.2 Data Analysis

The data for the SF-12 summary scores have been calculated and presented in this report in a number of different ways. Norms for South Australia, as well as trends over time, are available here for both the PCS and MCS summary scales.

Means scores for the PCS and MCS scales have been used to compare groups, such as different gender groups, and different age groups. Comparisons between those with and without a particular condition, or health risk factor have also been made.

To compare between gender, age groups and demographic variables, univariate t-test was used to test for statistical significance. The conventional 5% level of statistical
significance was used. To compare people with and without chronic conditions or health risk factors, and people in different population groups, multiple linear regression, adjusting for age and sex, was used to compute mean scores for each summary score of the SF-12. The chronic conditions analysed were diabetes, arthritis, heart disease, stroke, cancer, osteoporosis, asthma, other respiratory conditions, and mental health conditions. The health risk factors analysed were high blood pressure, high cholesterol, body mass index, smoking status and alcohol use. The different population groups were the South Australian Divisions of General Practice, quintiles of the Socio-Economic Index for Areas (Index of Relative Socio-Economic Disadvantage)\textsuperscript{11}, and Accessibility/Remoteness Index of Australia (ARIA)\textsuperscript{12} categories.

Each of the two summary scales of the SF-12, the PCS and MCS, for 1997, 1998, 2000, and 2003 were standardised to the 2001 South Australian Census population to account for the changing age-sex population structure over time.

The values reported in the tables for each of the two summary scales of the SF-12 are

- mean score;
- 95% confidence interval of the mean;
- median score;
- standard deviation of the mean; and
- variance of the mean.
CHAPTER 3: SF-12 POPULATION NORMS FOR SOUTH AUSTRALIA

The frequency distributions of scores obtained in the South Australian population (aged 18 and over) in 2003, for the two summary scores of the SF-12, are illustrated in Figure 3.1 and Figure 3.2.

Figure 3.1: Frequency Distribution for SF-12 Physical Component Summary (PCS) scores, 2003

![Figure 3.1](image1.png)

Figure 3.2: Frequency Distribution for SF-12 Mental Component Summary (MCS) scores, 2003

![Figure 3.2](image2.png)
The SF-12 norms for the PCS and MCS are presented in Table 3.1 for the overall South Australian population aged 18 years and over, as well as for both the male and female population in 2003.

Table 3.1: 2003 SF-12 Norms for the general South Australian population, aged 18 years and over

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>2013</td>
<td>48.9</td>
<td>(48.6 - 49.4)</td>
<td>52.9</td>
<td>10.2</td>
<td>103.7</td>
</tr>
<tr>
<td>Male</td>
<td>979</td>
<td>49.7</td>
<td>(49.1 - 50.3)</td>
<td>53.5</td>
<td>9.6</td>
<td>92.1</td>
</tr>
<tr>
<td>Female</td>
<td>1034</td>
<td>48.4*</td>
<td>(47.7 - 49.0)</td>
<td>52.2</td>
<td>10.7</td>
<td>113.9</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>2013</td>
<td>52.4</td>
<td>(52.0 - 52.8)</td>
<td>55.3</td>
<td>8.8</td>
<td>77.3</td>
</tr>
<tr>
<td>Male</td>
<td>979</td>
<td>53.4</td>
<td>(52.9 - 53.9)</td>
<td>55.9</td>
<td>7.8</td>
<td>60.8</td>
</tr>
<tr>
<td>Female</td>
<td>1034</td>
<td>51.4*</td>
<td>(50.8 - 52.0)</td>
<td>54.7</td>
<td>9.5</td>
<td>91.0</td>
</tr>
</tbody>
</table>

Data Source: 2003 July Health Monitor
* statistically significantly different from those without condition (t-test p<0.05).

Figure 3.3 shows the SF-12 norms (PCS and MCS) for the overall South Australian population, and by gender. Overall, women had statistically significantly lower scores on both the PCS and MCS summary scores than men.

Figure 3.3: 2003 SF-12 Norms for the general South Australian population, overall, Males and Females, aged 18 years and over.
Table 3.2 to Table 3.4 and Figure 3.4 to Figure 3.6 illustrate the breakdown by 10
year age groups of the SF-12 norms for the PCS and MCS, for the overall population
in 2003, 18 years and over, as well as by gender.

When analysed by age, it can be shown that in the older age groups, the norms for the
PCS of the SF-12 were statistically significantly lower. When analysed by both age
and sex, a decline for age is evident, however this is not statistically significant. The
MCS norms remain consistent across all ages, with no statistically significant
differences, even when adjusted for sex.
Table 3.2: 2003 SF-12 Norms for the general South Australian population, by age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Component Summary (PCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 24 years</td>
<td>237</td>
<td>53.3</td>
<td>(52.5 – 53.9)</td>
<td>54</td>
<td>5.5</td>
<td>30.0</td>
</tr>
<tr>
<td>25 to 34 years</td>
<td>360</td>
<td>52.5</td>
<td>(51.8 – 53.2)</td>
<td>54</td>
<td>6.6</td>
<td>42.9</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>403</td>
<td>51.3</td>
<td>(50.5 - 52.2)</td>
<td>54</td>
<td>8.6</td>
<td>74.4</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>373</td>
<td>49.2</td>
<td>(48.2 – 50.2)</td>
<td>53</td>
<td>9.7</td>
<td>94.8</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>257</td>
<td>46.7</td>
<td>(45.4 – 48.0)</td>
<td>50</td>
<td>10.6</td>
<td>113.1</td>
</tr>
<tr>
<td>65 to 74 years</td>
<td>198</td>
<td>44.4</td>
<td>(42.7 - 46.1)</td>
<td>49</td>
<td>12.4</td>
<td>152.9</td>
</tr>
<tr>
<td>75+ years</td>
<td>185</td>
<td>39.4</td>
<td>(37.6 - 41.2)</td>
<td>41</td>
<td>12.4</td>
<td>153.6</td>
</tr>
<tr>
<td>Mental Component Summary (MCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 24 years</td>
<td>237</td>
<td>51.6</td>
<td>(50.5 – 52.7)</td>
<td>55</td>
<td>8.5</td>
<td>72.9</td>
</tr>
<tr>
<td>25 to 34 years</td>
<td>360</td>
<td>52.5</td>
<td>(51.6 – 53.3)</td>
<td>55</td>
<td>8.1</td>
<td>65.6</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>403</td>
<td>51.7</td>
<td>(50.9 – 52.6)</td>
<td>54</td>
<td>8.9</td>
<td>79.2</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>373</td>
<td>51.5</td>
<td>(50.5 – 52.5)</td>
<td>55</td>
<td>9.6</td>
<td>91.3</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>257</td>
<td>53.4</td>
<td>(52.4 – 54.5)</td>
<td>56</td>
<td>8.4</td>
<td>69.9</td>
</tr>
<tr>
<td>65 to 74 years</td>
<td>198</td>
<td>53.8</td>
<td>(52.7 – 55.0)</td>
<td>57</td>
<td>8.4</td>
<td>70.7</td>
</tr>
<tr>
<td>75+ years</td>
<td>185</td>
<td>53.6</td>
<td>(52.2 – 54.9)</td>
<td>56</td>
<td>9.2</td>
<td>83.9</td>
</tr>
</tbody>
</table>

Data Source: 2003 July Health Monitor

Figure 3.4: 2003 SF-12 Norms for the general South Australian population, by age
Table 3.3: 2003 SF-12 Norms for the general South Australian MALE population, by age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 24 years</td>
<td>121</td>
<td>53.9</td>
<td>(53.0 - 54.8)</td>
<td>55</td>
<td>5.1</td>
<td>25.9</td>
</tr>
<tr>
<td>25 to 34 years</td>
<td>181</td>
<td>53.1</td>
<td>(52.3 - 53.9)</td>
<td>54</td>
<td>5.5</td>
<td>30.0</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>199</td>
<td>51.2</td>
<td>(49.9 – 52.3)</td>
<td>55</td>
<td>8.4</td>
<td>70.8</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>184</td>
<td>49.3</td>
<td>(47.9 – 50.7)</td>
<td>53</td>
<td>9.7</td>
<td>93.9</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>128</td>
<td>47.0</td>
<td>(45.1 – 48.9)</td>
<td>51</td>
<td>10.9</td>
<td>117.7</td>
</tr>
<tr>
<td>65 to 74 years</td>
<td>94</td>
<td>45.5</td>
<td>(42.9 - 47.9)</td>
<td>50</td>
<td>12.3</td>
<td>151.2</td>
</tr>
<tr>
<td>75+ years</td>
<td>71</td>
<td>40.9</td>
<td>(38.3 – 43.4)</td>
<td>43</td>
<td>10.9</td>
<td>119.5</td>
</tr>
</tbody>
</table>

| **Mental Component Summary (MCS)** |     |      |              |        |                    |          |
| 18 to 24 years    | 121 | 53.7 | (52.5 – 54.8) | 56     | 6.6                | 43.8     |
| 25 to 34 years    | 181 | 53.9 | (52.9 – 54.9) | 56     | 6.8                | 46.0     |
| 35 to 44 years    | 199 | 53.2 | (52.1 – 54.3) | 56     | 7.9                | 63.7     |
| 45 to 54 years    | 184 | 52.4 | (51.1 – 53.7) | 55     | 9.0                | 81.6     |
| 55 to 64 years    | 128 | 53.7 | (52.4 – 55.1) | 57     | 7.7                | 59.7     |
| 65 to 74 years    | 94  | 54.0 | (52.5 – 55.6) | 56     | 7.8                | 60.2     |
| 75+ years         | 71  | 53.4 | (51.5 – 55.4) | 56     | 8.3                | 68.3     |

Data Source: 2003 July Health Monitor

Figure 3.5: 2003 SF-12 Norms for the general MALE South Australian population by age.
### Table 3.4: 2003 SF-12 Norms for the general South Australian FEMALE population, by age

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 24 years</td>
<td>115</td>
<td>52.6</td>
<td>(51.5 – 53.7)</td>
<td>54</td>
<td>5.8</td>
<td>33.6</td>
</tr>
<tr>
<td>25 to 34 years</td>
<td>179</td>
<td>51.9</td>
<td>(50.8 – 53.0)</td>
<td>55</td>
<td>7.5</td>
<td>55.5</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>204</td>
<td>51.4</td>
<td>(50.2 – 52.7)</td>
<td>54</td>
<td>8.9</td>
<td>78.2</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>189</td>
<td>49.1</td>
<td>(47.7 – 50.5)</td>
<td>53</td>
<td>9.8</td>
<td>96.1</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>130</td>
<td>46.4</td>
<td>(44.6 – 48.2)</td>
<td>49</td>
<td>10.5</td>
<td>109.3</td>
</tr>
<tr>
<td>65 to 74 years</td>
<td>104</td>
<td>43.4</td>
<td>(40.9 – 45.8)</td>
<td>47</td>
<td>12.4</td>
<td>153.9</td>
</tr>
<tr>
<td>75+ years</td>
<td>114</td>
<td>38.5</td>
<td>(36.0 – 40.9)</td>
<td>40</td>
<td>13.2</td>
<td>173.9</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 24 years</td>
<td>115</td>
<td>49.4</td>
<td>(47.6 – 51.1)</td>
<td>53</td>
<td>9.7</td>
<td>81.4</td>
</tr>
<tr>
<td>25 to 34 years</td>
<td>179</td>
<td>50.2</td>
<td>(48.9 – 51.6)</td>
<td>54</td>
<td>9.0</td>
<td>81.4</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>204</td>
<td>50.3</td>
<td>(48.9 – 51.6)</td>
<td>53</td>
<td>9.5</td>
<td>90.6</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>189</td>
<td>50.6</td>
<td>(49.2 – 52.1)</td>
<td>54</td>
<td>9.9</td>
<td>99.7</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>130</td>
<td>53.1</td>
<td>(51.6 – 54.7)</td>
<td>56</td>
<td>8.9</td>
<td>80.3</td>
</tr>
<tr>
<td>65 to 74 years</td>
<td>104</td>
<td>53.7</td>
<td>(51.9 – 55.4)</td>
<td>57</td>
<td>8.9</td>
<td>80.8</td>
</tr>
<tr>
<td>75+ years</td>
<td>114</td>
<td>53.6</td>
<td>(51.8 – 55.4)</td>
<td>56</td>
<td>9.7</td>
<td>94.4</td>
</tr>
</tbody>
</table>

Data Source: 2003 July Health Monitor

### Figure 3.6: 2003 SF-12 Norms for the general FEMALE South Australian population by age
CHAPTER 4: SF-12 POPULATION TRENDS FOR SOUTH AUSTRALIA

The SF-12 questionnaire has been administered in three previous SERCIS CATI surveys (June 1997, August 1998 and November 2000), as well as July 2003. Table 4.1 shows the trends for the SF-12 summary component mean scores over time from 1997 to 2003.

Table 4.1: Mean SF-12 scores, general South Australian population, aged 18 & over, by year

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 1997</td>
<td>2501</td>
<td>49.8</td>
<td>(49.4 – 50.2)</td>
<td>53.4</td>
<td>9.6</td>
<td>92.3</td>
</tr>
<tr>
<td>August 1998</td>
<td>3003</td>
<td>49.4</td>
<td>(49.0 – 49.7)</td>
<td>52.7</td>
<td>9.4</td>
<td>87.9</td>
</tr>
<tr>
<td>November 2000</td>
<td>2545</td>
<td>49.2</td>
<td>(48.9 – 49.6)</td>
<td>52.5</td>
<td>9.9</td>
<td>97.1</td>
</tr>
<tr>
<td>July 2003</td>
<td>2013</td>
<td>48.9</td>
<td>(48.6 – 49.4)</td>
<td>53.0</td>
<td>10.2</td>
<td>103.7</td>
</tr>
</tbody>
</table>

| **Mental Component Summary (MCS)** |     |      |           |        |                    |          |
| June 1997                  | 2501| 52.1 | (51.7 – 52.4) | 54.8  | 8.5                | 71.6     |
| August 1998                | 3003| 52.2 | (51.9 – 52.5) | 55.1  | 8.8                | 77.8     |
| November 2000              | 2545| 52.3 | (51.9 – 52.6) | 55.0  | 8.6                | 74.2     |
| July 2003                  | 2013| 52.4 | (52.0 – 52.8) | 55.0  | 8.8                | 77.3     |


Table 4.2, Figure 4.1 and Figure 4.2 show the standardised SF-12 mean scores over time. The scores were standardised to the 2001 South Australian Census to account for differences in age and sex in the population over time. The standardised mean PCS score for the year 2000 was statistically significantly lower than those for 1997 and 1998. However, the MCS summary scores did not vary significantly over time. Figure 4.3 and Figure 4.4 shows the mean PCS and MCS scores by year, for ten–year age groups for males and females. In general, there were no differences between the age and sex groups for either the PCS or the MCS over time.
Table 4.2: Mean STANDARDISED SF-12 scores (95% confidence interval of the mean) for the general South Australian population, aged 18 and over, by year.

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean (95% CI)</td>
</tr>
<tr>
<td>June 1997</td>
<td>2501</td>
<td>49.1 (47.2 – 51.1)</td>
</tr>
<tr>
<td>August 1998</td>
<td>3003</td>
<td>49.3 (47.5 – 51.1)</td>
</tr>
<tr>
<td>November 2000</td>
<td>2545</td>
<td>48.5 (46.5 – 50.4)</td>
</tr>
<tr>
<td>July 2003</td>
<td>2013</td>
<td>49.0 (46.8 – 51.2)</td>
</tr>
</tbody>
</table>


1997 statistically significantly different from 1997 (t-test p<0.05).
1998 statistically significantly different from 1998 (t-test p<0.05).
2000 statistically significantly different from 2000 (t-test p<0.05).

Figure 4.1: Mean STANDARDISED SF-12 Physical Component Summary (PCS) scores for the general South Australian population, aged 18 years and over by year

Figure 4.2: Mean STANDARDISED SF-12 Mental Component Summary (MCS) scores for the general South Australian population, aged 18 years and over by year
Figure 4.3: Mean SF-12 Physical Component Summary (PCS) scores for the general population, aged 18 years and over by year, for each gender and age group.
Figure 4.3: Mean SF-12 Physical Component Summary (PCS) scores for the general population, aged 18 years and over by year, for each gender and age group (continued)

Males 35 to 44 years

Females 35 to 44 years

Males 45 to 54 years

Females 45 to 54 years
Figure 4.3: Mean SF-12 Physical Component Summary (PCS) scores for the general population, aged 18 years and over by year, for each gender and age group (continued)
Figure 4.4: Mean SF-12 Mental Component Summary (MCS) scores for the general population, aged 18 years and over by year, for each gender and age group

Males 18 to 24 years

Females 18 to 24 years

Males 25 to 34 years

Females 25 to 34 years
Figure 4.4: Mean SF-12 Mental Component Summary (MCS) scores for the general population, aged 18 years and over by year, for each gender and age group (continued)
Figure 4.4: Mean SF-12 Mental Component Summary (MCS) scores for the general population, aged 18 years and over by year, for each gender and age group (continued)

Males 55 to 64 years

Females 55 to 64 years

Males 65 to 74 years

Females 65 to 74 years

Males 75 plus years

Females 75 plus years
CHAPTER 5: SF-12 BY VARIOUS CHRONIC CONDITIONS

This section presents the South Australian SF-12 scores for selected chronic conditions and health risk factors for people aged 18 years and over for 2000. The SF-12 scores for this section have been obtained from the 2000 Collaborative Health and Wellbeing Survey.

The following chronic conditions were examined:

- diabetes,
- arthritis,
- heart disease,
- stroke,
- cancer,
- osteoporosis,
- asthma,
- other respiratory conditions, and
- mental health conditions.

SF-12 scores are also presented by number of co-morbid conditions.

Age and sex adjusted scores are presented and significant differences between people with and without a chronic condition were examined.
## 5.1 Diabetes

Overall, 6.2% (95% CI 5.3-7.2, n=157) of respondents in South Australia in 2000 reported having medically confirmed diabetes. Table 5.1 shows the mean SF-12 scores for South Australians diagnosed with diabetes for the year 2000.

### Table 5.1: Mean SF-12 scores for South Australians doctor diagnosed with diabetes aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>157</td>
<td>40.5</td>
<td>(38.6 - 42.3)</td>
<td>43.3</td>
<td>11.8</td>
<td>137.9</td>
</tr>
<tr>
<td>No diabetes</td>
<td>2388</td>
<td>49.8</td>
<td>(49.4 – 50.2)</td>
<td>52.9</td>
<td>9.4</td>
<td>89.0</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>157</td>
<td>52.4</td>
<td>(50.9 – 54.0)</td>
<td>54.9</td>
<td>10.0</td>
<td>100.3</td>
</tr>
<tr>
<td>No diabetes</td>
<td>2388</td>
<td>52.3</td>
<td>(51.9 – 52.6)</td>
<td>55.2</td>
<td>8.5</td>
<td>72.6</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 5.2 that people diagnosed with diabetes scored statistically significantly lower on the PCS than people who do not have diabetes. There were no statistically significant differences between the groups on the MCS scale.

### Table 5.2: Age-sex adjusted mean SF-12 scores for South Australians diagnosed with diabetes aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>PCS Mean (95% CI)</th>
<th>MCS Mean (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>157</td>
<td>43.5 (42.0 – 44.9)*</td>
<td>51.7 (50.3 – 53.0)</td>
</tr>
<tr>
<td>No diabetes</td>
<td>2388</td>
<td>49.6 (49.2 – 49.9)</td>
<td>52.3 (51.9 – 52.7)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

* statistically significantly different from those without condition (t-test p<0.05).
Figure 5.1 shows the mean scores for MCS and PCS adjusted for age and sex.

**Figure 5.1: Age-sex adjusted 2000 Mean SF-12 scores for South Australians diagnosed with diabetes, aged 18 years and over.**
5.2 Arthritis

Overall, 20.5% (95% CI 19.0-22.1, n=522) of respondents in South Australia reported having arthritis. Table 5.3 shows the mean SF-12 scores for South Australians diagnosed with arthritis for the year 2000.

Table 5.3: Mean SF-12 scores for South Australians diagnosed with arthritis aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>522</td>
<td>40.9</td>
<td>(39.9 – 41.9)</td>
<td>42.2</td>
<td>11.5</td>
<td>131.5</td>
</tr>
<tr>
<td>No arthritis</td>
<td>2023</td>
<td>51.4</td>
<td>(51.0 – 51.7)</td>
<td>53.8</td>
<td>8.1</td>
<td>65.7</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>522</td>
<td>52.7</td>
<td>(51.9 – 53.5)</td>
<td>55.8</td>
<td>9.1</td>
<td>83.5</td>
</tr>
<tr>
<td>No arthritis</td>
<td>2023</td>
<td>52.2</td>
<td>(51.8 – 52.5)</td>
<td>54.9</td>
<td>8.5</td>
<td>71.8</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 5.4 that people diagnosed with arthritis scored statistically significantly lower on the PCS of the SF-12 than people who did not have arthritis. There were no statistically significant differences between the groups on the MCS scale.

Figure 5.2 shows the means scores for MCS and PCS adjusted for age and sex.

Table 5.4: Age sex adjusted Mean SF-12 scores for South Australians diagnosed with arthritis aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>PCS</th>
<th>95% CI</th>
<th></th>
<th>MCS</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthritis</td>
<td>522</td>
<td>43.1</td>
<td>(42.3 – 43.9)*</td>
<td>51.9</td>
<td>51.1</td>
<td>(52.7)</td>
</tr>
<tr>
<td>No arthritis</td>
<td>2023</td>
<td>50.8</td>
<td>(50.4 – 51.2)</td>
<td>52.4</td>
<td>51.9</td>
<td>(52.7)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

* statistically significantly different from those without condition (t-test p<0.05).
Table 5.2 shows the means scores for MCS and PCS adjusted for age and sex.

Figure 5.2: Age-sex adjusted 2000 Mean SF-12 scores for South Australians diagnosed with arthritis, aged 18 years and over.
5.3 Heart Disease

Overall, 6.2% (95% CI 5.4-7.3, n=159) of respondents in South Australia reported ever having heart disease. Table 5.5 shows the mean SF-12 scores for South Australians diagnosed with heart disease for the year 2000.

Table 5.5: Mean SF-12 scores for South Australians diagnosed with heart disease aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart disease</td>
<td>159</td>
<td>40.1</td>
<td>(38.2 – 41.9)</td>
<td>52.9</td>
<td>12.1</td>
<td>145.9</td>
</tr>
<tr>
<td>No heart disease</td>
<td>2386</td>
<td>49.9</td>
<td>(49.5 – 50.2)</td>
<td>40.2</td>
<td>9.4</td>
<td>87.9</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart disease</td>
<td>159</td>
<td>51.7</td>
<td>(50.0 - 53.3)</td>
<td>55.9</td>
<td>10.7</td>
<td>114.4</td>
</tr>
<tr>
<td>No heart disease</td>
<td>2386</td>
<td>52.3</td>
<td>(51.9 –52.6)</td>
<td>55.0</td>
<td>8.5</td>
<td>71.6</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 5.6 and that people diagnosed with heart disease scored statistically significantly lower than people who did not have heart disease on both summary scores of the SF-12.

Table 5.6: Age-sex adjusted Mean SF-12 scores for South Australians diagnosed with heart disease aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>Mean (95% CI)</td>
<td>Mean (95% CI)</td>
</tr>
<tr>
<td>Heart disease</td>
<td>159</td>
<td>44.4 (42.9 – 45.9)*</td>
</tr>
<tr>
<td>No heart disease</td>
<td>2386</td>
<td>49.6 (49.2 – 49.9)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

* statistically significantly different from those without condition (t-test p<0.05).
Figure 5.3 shows the means scores for MCS and PCS adjusted for age and sex.

**Figure 5.3: Age-sex adjusted 2000 mean SF-12 scores for South Australians diagnosed with heart disease, aged 18 years and over.**
5.4  Stroke

Overall, 2.0% (95% CI 1.5-2.6, n=51) of respondents in South Australia reported ever having a stroke. Table 5.7 shows the mean SF-12 scores for South Australians ever having a stroke for the year 2000.

Table 5.7:  Mean SF-12 scores for South Australians diagnosed with Stroke aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Component Summary (PCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>51</td>
<td>36.1</td>
<td>(33.4 – 38.7)</td>
<td>37.6</td>
<td>9.4</td>
<td>87.6</td>
</tr>
<tr>
<td>No stroke</td>
<td>2494</td>
<td>49.5</td>
<td>(49.1 – 49.9)</td>
<td>52.8</td>
<td>9.7</td>
<td>93.7</td>
</tr>
</tbody>
</table>

| Mental Component Summary (MCS) |         |      |             |        |                   |          |
| Stroke                 | 51  | 51.4 | (48.7 - 53.9)| 52.9   | 9.2               | 84.5     |
| No Stroke              | 2494| 52.3 | (51.9 - 52.6)| 55.0   | 8.6               | 74.0     |

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 5.8 that people diagnosed with stroke scored statistically significantly lower on the PCS of the SF-12, than people who did not have stroke. There were no statistically significant differences between these groups for the MCS.

Table 5.8:  Age-sex adjusted Mean SF-12 scores for South Australians diagnosed with Stroke aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean (95% CI)</td>
</tr>
<tr>
<td>Stroke</td>
<td>51</td>
<td>41.2  (38.6 – 43.7)*</td>
</tr>
<tr>
<td>No stroke</td>
<td>2494</td>
<td>49.4  (49.1 – 49.7)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey
* statistically significantly different from those without condition (t-test p<0.05).
Figure 5.4 shows the means scores for MCS and PCS adjusted for age and sex.

Figure 5.4: Age-sex adjusted 2000 Mean SF-12 scores for South Australians diagnosed with stroke, aged 18 years and over.
5.5 Cancer

Table 5.9 shows the mean SF-12 scores for South Australians diagnosed with cancer for the year 2000. Overall, 4.8% (95% CI 4.0-5.7, n=122) of respondents in South Australia reported ever having cancer.

Table 5.9: Mean SF-12 scores for South Australians diagnosed with Cancer aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>122</td>
<td>42.1</td>
<td>(40.2 – 44.0)</td>
<td>43.3</td>
<td>10.7</td>
<td>113.8</td>
</tr>
<tr>
<td>No cancer</td>
<td>2423</td>
<td>49.6</td>
<td>(49.2 – 49.9)</td>
<td>52.9</td>
<td>9.7</td>
<td>93.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>122</td>
<td>52.3</td>
<td>(50.6 – 53.9)</td>
<td>55.6</td>
<td>9.3</td>
<td>87.3</td>
</tr>
<tr>
<td>No cancer</td>
<td>2423</td>
<td>52.3</td>
<td>(51.9 – 52.6)</td>
<td>55.0</td>
<td>8.6</td>
<td>73.6</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey  Note:

It can be seen from Table 5.10 that people diagnosed with cancer scored statistically significantly lower on the PCS than people who did not have cancer. There were no statistically significant differences between the groups on the MCS scale.

Table 5.10: Age sex adjusted Mean SF-12 scores for South Australians diagnosed with cancer aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>PCS Mean (95% CI)</th>
<th>MCS Mean (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>122</td>
<td>45.5 (43.8 – 47.1)*</td>
<td>51.6 (50.0 – 53.1)</td>
</tr>
<tr>
<td>No cancer</td>
<td>2423</td>
<td>49.4 (49.1 – 49.8)</td>
<td>52.3 (51.9 – 52.6)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey
* statistically significantly different from those without condition (t-test p<0.05).
Figure 5.5 shows the means scores for MCS and PCS adjusted for age and sex.

**Figure 5.5: Age-sex adjusted 2000 Mean SF-12 scores for South Australians diagnosed with cancer, aged 18 years and over.**
5.6 Osteoporosis

Overall, 4.2% (95% CI 3.5-5.1, n=108) of respondents in South Australia reported having osteoporosis. Table 5.11 shows the mean SF-12 scores for South Australians diagnosed with osteoporosis for the year 2000.

Table 5.11: Mean SF-12 scores for South Australians diagnosed with osteoporosis aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>108</td>
<td>38.0</td>
<td>(35.6 – 40.4)</td>
<td>38.1</td>
<td>12.6</td>
<td>157.9</td>
</tr>
<tr>
<td>No osteoporosis</td>
<td>2437</td>
<td>49.7</td>
<td>(49.4 – 50.1)</td>
<td>52.8</td>
<td>9.4</td>
<td>88.7</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>108</td>
<td>51.9</td>
<td>(50.1 – 53.8)</td>
<td>54.4</td>
<td>9.6</td>
<td>92.2</td>
</tr>
<tr>
<td>No osteoporosis</td>
<td>2437</td>
<td>52.6</td>
<td>(51.9 – 52.6)</td>
<td>55.1</td>
<td>8.6</td>
<td>73.5</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 5.12 and that people diagnosed with osteoporosis scored statistically significantly lower on the PCS scale than people who did not have osteoporosis. There were no statistically significant differences between the groups on the MCS scale.

Table 5.12: Age sex adjusted Mean SF-12 scores for South Australians diagnosed with Osteoporosis aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean (95% CI)</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>108</td>
<td>42.3 (40.5 – 44.0)*</td>
</tr>
<tr>
<td>No osteoporosis</td>
<td>2437</td>
<td>49.5 (49.2 – 49.9)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

* statistically significantly different from those without condition (t-test p<0.05).
Figure 5.6 shows the means scores for MCS and PCS adjusted for age and sex.

**Figure 5.6: Age-sex adjusted mean 2000 SF-12 scores for South Australians diagnosed with osteoporosis, aged 18 years and over.**
5.7 Asthma

Overall, 12.7% (95% CI 11.5-14.1, n=324) of respondents have current medically confirmed asthma. Table 5.13 shows the mean SF-12 scores for South Australians currently diagnosed with asthma for the year 2000.

Table 5.13: Mean SF-12 scores for South Australians diagnosed with current asthma aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td>324</td>
<td>47.2</td>
<td>(46.0 – 48.4)</td>
<td>50.4</td>
<td>10.8</td>
<td>116.4</td>
</tr>
<tr>
<td>No asthma</td>
<td>2212</td>
<td>49.5</td>
<td>(49.1 – 49.9)</td>
<td>52.8</td>
<td>9.7</td>
<td>93.2</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td>324</td>
<td>51.1</td>
<td>(50.1 – 52.2)</td>
<td>53.3</td>
<td>9.5</td>
<td>90.1</td>
</tr>
<tr>
<td>No asthma</td>
<td>2212</td>
<td>52.5</td>
<td>(52.1 – 52.8)</td>
<td>55.1</td>
<td>8.5</td>
<td>71.9</td>
</tr>
</tbody>
</table>


It can be seen from Table 5.14 that people with current asthma scored statistically significantly lower than people who did not have current asthma on the PCS of the SF-12. There were no statistically significant differences between the groups on the MCS scale.

Table 5.14: Age sex adjusted Mean SF-12 scores for South Australians with current asthma aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>PCS Mean (95% CI)</th>
<th>MCS Mean (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>324</td>
<td>46.2 (45.2 – 47.2)*</td>
<td>51.5 (50.5 – 52.4)</td>
</tr>
<tr>
<td>No asthma</td>
<td>2212</td>
<td>49.7 (49.3 – 50.1)</td>
<td>52.4 (52.0 – 52.7)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

* statistically significantly different from those without condition (t-test p<0.05).
Figure 5.7 shows the means scores for MCS and PCS adjusted for age and sex.

**Figure 5.7: Age-sex adjusted 2000 mean SF-12 scores for South Australians diagnosed with asthma, aged 18 years and over.**
5.8 Other Respiratory Condition

Overall, 2.6% (95% CI 2.1-3.4, n=67) of respondents reported current respiratory conditions other than asthma such as bronchitis, emphysema, or chronic lung disease that has lasted six months or more for the year 2000. Table 5.15 shows the mean SF-12 scores for South Australians ever having and currently having other respiratory problems.

Table 5.15: Mean SF-12 scores for South Australians currently diagnosed with any other Respiratory Condition aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Component Summary (PCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory Condition</td>
<td>67</td>
<td>36.7</td>
<td>(33.7 – 39.7)</td>
<td>37.6</td>
<td>12.2</td>
<td>147.8</td>
</tr>
<tr>
<td>No respiratory condition</td>
<td>2478</td>
<td>49.6</td>
<td>(49.2 – 49.9)</td>
<td>52.8</td>
<td>9.6</td>
<td>91.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Component Summary (MCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory condition</td>
<td>67</td>
<td>50.3</td>
<td>(47.8 – 52.6)</td>
<td>50.6</td>
<td>9.8</td>
<td>96.7</td>
</tr>
<tr>
<td>No respiratory condition</td>
<td>2478</td>
<td>52.3</td>
<td>(51.9 – 52.6)</td>
<td>55.1</td>
<td>8.6</td>
<td>73.6</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 5.16 that people with a current respiratory condition scored statistically significantly lower than on both summary scores people who did not have a current respiratory condition.

Table 5.16: Age sex adjusted Mean SF-12 scores for South Australians with current respiratory condition aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean (95% CI)</td>
</tr>
<tr>
<td>Respiratory condition</td>
<td>67</td>
<td>39.5 (37.3 – 41.6)*</td>
</tr>
<tr>
<td>No respiratory condition</td>
<td>2478</td>
<td>49.5 (49.2 – 49.9)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

Figure 5.8 shows the means scores for MCS and PCS adjusted for age and sex.
Figure 5.8: Age-sex adjusted 2000 mean SF-12 scores for South Australians diagnosed with respiratory condition, aged 18 years and over.
5.9 Mental Health Condition

Current diagnosed mental health condition was determined if the respondent:
- was diagnosed with a mental health condition in the last 12 months; or
- was currently receiving treatment for a mental health condition.

Respondents indicating that a doctor had told them, in the last 12 months, that they had a mental health condition were asked if they still had the specific condition.

Overall, 8.0% (95% CI 7.0 – 9.2, n=205) of respondents in South Australia reported a diagnosed mental health condition using this definition. Table 5.17 shows the mean SF-12 scores for South Australians diagnosed with a current mental health condition for the year 2000.

Table 5.17: Mean SF-12 scores for South Australians diagnosed with current Mental Health Condition aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health condition</td>
<td>205</td>
<td>46.3</td>
<td>(44.6 – 47.9)</td>
<td>46.9</td>
<td>12.1</td>
<td>146.4</td>
</tr>
<tr>
<td>No mental health condition</td>
<td>2340</td>
<td>49.5</td>
<td>(49.1 – 49.9)</td>
<td>52.8</td>
<td>9.6</td>
<td>91.9</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health condition</td>
<td>205</td>
<td>41.5</td>
<td>(39.8 – 43.0)</td>
<td>41.6</td>
<td>11.7</td>
<td>136.3</td>
</tr>
<tr>
<td>No mental health condition</td>
<td>2340</td>
<td>53.2</td>
<td>(52.9 – 53.5)</td>
<td>55.5</td>
<td>7.6</td>
<td>57.7</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 5.14 that people with a current mental health condition scored statistically significantly lower on both summary scores than people who did not have current mental health condition.
Table 5.18: Age sex adjusted Mean SF-12 scores for South Australians with current mental health condition aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (95% CI)</td>
<td>Mean (95% CI)</td>
</tr>
<tr>
<td>Mental health condition</td>
<td>205</td>
<td>46.4 (45.1 – 47.6)*</td>
</tr>
<tr>
<td>No mental health condition</td>
<td>2340</td>
<td>49.5 (49.1 – 49.9)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

* statistically significantly different from those without condition (t-test p<0.05).

Figure 5.9 shows the means scores for MCS and PCS adjusted for age and sex.

Figure 5.9: Age-sex adjusted 2000 mean SF-12 scores for South Australians with current mental health condition, aged 18 years and over.
5.10 Co-morbidity

Multiple health conditions were derived by accumulating the nine health conditions that were reported. These health conditions were diabetes, arthritis, heart disease, stroke, cancer, osteoporosis, asthma, other respiratory conditions, and mental health conditions. Overall, 56.4% (n = 1436) of people aged 18 and over had none of the conditions listed, 27.7% (n=705) had one condition, 10.3% (n= 261) had two chronic conditions, and 5.6% (n = 143) had three to five chronic conditions. No respondent in South Australia reported having more than five chronic conditions for the year 2000.

Table 5.19: Mean SF-12 scores for South Australians diagnosed with at least one or more chronic conditions aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Component Summary (PCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No chronic health condition</td>
<td>1436</td>
<td>52.8</td>
<td>(52.5 – 53.1)</td>
<td>54.8</td>
<td>6.5</td>
<td>41.8</td>
</tr>
<tr>
<td>One chronic health condition</td>
<td>705</td>
<td>47.4</td>
<td>(46.6 – 48.2)</td>
<td>49.9</td>
<td>10.4</td>
<td>107.1</td>
</tr>
<tr>
<td>Two chronic health conditions</td>
<td>261</td>
<td>42.4</td>
<td>(40.9 – 43.7)</td>
<td>44.5</td>
<td>11.3</td>
<td>128.5</td>
</tr>
<tr>
<td>Three to five chronic health conditions</td>
<td>143</td>
<td>35.2</td>
<td>(33.4 – 36.9)</td>
<td>33.5</td>
<td>10.8</td>
<td>117.5</td>
</tr>
<tr>
<td>Mental Component Summary (MCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No chronic health condition</td>
<td>1436</td>
<td>52.9</td>
<td>(52.6 – 53.3)</td>
<td>50.6</td>
<td>7.1</td>
<td>50.1</td>
</tr>
<tr>
<td>One chronic health condition</td>
<td>705</td>
<td>52.2</td>
<td>(51.5 – 52.9)</td>
<td>55.7</td>
<td>9.8</td>
<td>95.9</td>
</tr>
<tr>
<td>Two chronic health conditions</td>
<td>261</td>
<td>50.1</td>
<td>(48.8 – 51.4)</td>
<td>52.5</td>
<td>10.9</td>
<td>117.7</td>
</tr>
<tr>
<td>Three to five chronic health conditions</td>
<td>143</td>
<td>49.4</td>
<td>(57.6 – 51.1)</td>
<td>50.7</td>
<td>10.6</td>
<td>111.5</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 5.14 that South Australians with the one or more chronic conditions score statistically significantly on both summary scores lower than people who did not have any chronic conditions.
Table 5.20: Age-sex adjusted Mean SF-12 scores for South Australians with at least one or more chronic conditions aged 18 years and over, 2000.

<table>
<thead>
<tr>
<th>Condition</th>
<th>n</th>
<th>PCS Mean (95% CI)</th>
<th>MCS Mean (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No chronic health condition</td>
<td>1436</td>
<td>51.9 (51.5 – 52.4)</td>
<td>53.4 (52.9 – 53.8)</td>
</tr>
<tr>
<td>One chronic health condition</td>
<td>705</td>
<td>48.1 (47.4 – 48.7)</td>
<td>52.1 (51.5 – 52.7)</td>
</tr>
<tr>
<td>Two chronic health conditions</td>
<td>261</td>
<td>44.8 (43.7 – 45.9)</td>
<td>49.4 (48.4 – 50.5)</td>
</tr>
<tr>
<td>Three to five chronic health conditions</td>
<td>143</td>
<td>40.8 (39.0 – 42.6)</td>
<td>48.9 (47.3 – 50.7)</td>
</tr>
</tbody>
</table>


Figure 5.10 shows the means scores for MCS and PCS adjusted for age and sex. Analyses showed that an increasing number of conditions contributed to a statistically significant decline in both PCS scores ($F=2108.84$, $df=4$, $p<0.01$), and MCS scores ($F=1603.5$, $df=4$, $p<0.01$)

Figure 5.10: Age-sex adjusted 2000 SF-12 mean scores for South Australians with one or more chronic conditions, aged 18 years and over.
CHAPTER 6: SF-12 by Health Risk Factors

This section presents the South Australian SF-12 scores for selected health risk factors for people aged 18 years and over.

The following health risk factors were examined:

- high blood pressure,
- high cholesterol,
- body mass index,
- sufficient physical activity,
- smoking, and
- alcohol.

SF-12 scores were presented by the number of health risk factors that people may have.

Age and sex adjusted scores were also presented to test for significant differences between people with and without a health risk factor.
Health Risk Factors

6.1 High Blood Pressure

Overall, 11.0% (95% CI 9.8-12.3, n=279) of respondents in South Australia reported having current high blood pressure. Table 6.1 shows the mean SF-12 scores for South Australians with current high blood pressure for the year 2000.

Table 6.1: Mean SF-12 scores for South Australians diagnosed with current high blood pressure aged 18 years and over, 2000

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Component Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(PCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High blood pressure</td>
<td>279</td>
<td>42.6</td>
<td>(41.2 – 43.9)</td>
<td>44.8</td>
<td>11.9</td>
<td>142.5</td>
</tr>
<tr>
<td>No high blood pressure / don’t know</td>
<td>2266</td>
<td>50.1</td>
<td>(49.7 – 50.5)</td>
<td>53.1</td>
<td>9.2</td>
<td>85.4</td>
</tr>
<tr>
<td>Mental Component Summary (MCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High blood pressure</td>
<td>279</td>
<td>52.1</td>
<td>(50.9 – 53.2)</td>
<td>54.5</td>
<td>9.7</td>
<td>94.8</td>
</tr>
<tr>
<td>No high blood pressure / don’t know</td>
<td>2266</td>
<td>52.3</td>
<td>(51.9 – 52.6)</td>
<td>55.1</td>
<td>8.5</td>
<td>94.8</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 6.2 that people with current high blood pressure scored statistically significantly lower scored statistically significantly lower than people who did not have current asthma on the PCS of the SF-12. There were no statistically significant differences between the groups on the MCS scale than people who did not have current high blood pressure.

Table 6.2: Age sex adjusted SF-12 Mean scores for South Australians with current high blood pressure aged 18 years and over, 2000

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th></th>
<th>MCS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean (95% CI)</td>
<td>n</td>
<td>Mean (95% CI)</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>279</td>
<td>45.5 (44.4 – 46.5)*</td>
<td>51.3</td>
<td>(50.3 – 52.4)</td>
</tr>
<tr>
<td>No high blood pressure / don’t know</td>
<td>2266</td>
<td>49.7 (49.3 – 50.1)</td>
<td>52.4</td>
<td>(52.0 – 52.7)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

* statistically significantly different from those without condition (t-test p<0.05).
Figure 6.1 shows the means scores for MCS and PCS adjusted for age and sex.

Figure 6.1: Age-sex adjusted 2000 mean SF-12 scores for South Australians diagnosed with high blood pressure, aged 18 years and over.
6.2 High Cholesterol

Overall, 7.5% (95% CI 6.5-8.6, n=191) of respondents in South Australia reported having current high cholesterol. Table 6.3 shows the mean SF-12 scores for South Australians diagnosed with high cholesterol for the year 2000.

Table 6.3: Mean SF-12 scores for South Australians diagnosed with current high cholesterol aged 18 years and over, 2000

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High cholesterol</td>
<td>191</td>
<td>44.1</td>
<td>(44.5 – 45.8)</td>
<td>48.2</td>
<td>11.4</td>
<td>130.9</td>
</tr>
<tr>
<td>No high cholesterol / don’t know</td>
<td>2354</td>
<td>49.7</td>
<td>(49.3 – 50.5)</td>
<td>52.9</td>
<td>9.6</td>
<td>92.1</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High cholesterol</td>
<td>191</td>
<td>50.6</td>
<td>(49.2 – 52.1)</td>
<td>53.9</td>
<td>10.0</td>
<td>100.6</td>
</tr>
<tr>
<td>No high cholesterol / don’t know</td>
<td>2354</td>
<td>52.4</td>
<td>(52.1 – 52.7)</td>
<td>55.1</td>
<td>8.5</td>
<td>71.9</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 6.4 that people with current high cholesterol score statistically significantly lower scored statistically significantly lower on both summary scores than people who did not have current high cholesterol.

Table 6.4: Age-sex adjusted Mean SF-12 scores for South Australians with current high cholesterol aged 18 years and over, 2000

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>PCS</th>
<th>95% CI</th>
<th>MCS</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>High cholesterol</td>
<td>191</td>
<td>46.8</td>
<td>(45.5 – 48.1)*</td>
<td>49.7</td>
<td>(45.6 – 49.2)*</td>
</tr>
<tr>
<td>No high cholesterol / Don’t know</td>
<td>2354</td>
<td>49.4</td>
<td>(49.1 – 49.8)</td>
<td>52.5</td>
<td>(52.1 – 52.8)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey
* statistically significantly different from those without condition (t-test p<0.05).

Figure 6.2 shows the means scores for MCS and PCS adjusted for age and sex.
Figure 6.2: Age-sex adjusted 2000 mean SF-12 scores for South Australians diagnosed with high cholesterol aged 18 years and over.
6.3 Body Mass Index

Self reported height and weight were used to calculate Body Mass Index (BMI)\(^{14}\). Overall, 3.7% (95% CI 3.0–4.5, n=94) of respondents in South Australia were defined as underweight according to BMI, 43.8% (95% CI 41.8–45.7, n=1114) were classified as normal, 32.2% (95% CI 30.3–34.0, n=818) were classified as overweight, and 14.6% (95% CI 13.3–16.1, n=372) were classified as obese for the year 2000.

Table 6.5 shows the mean SF-12 scores for South Australians in each BMI category.

### Table 6.5: Mean SF-12 scores for South Australians by body mass index category aged 18 years and over, 2000

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underweight (BMI &lt; 18.50)</td>
<td>94</td>
<td>50.8</td>
<td>(48.9 – 52.7)</td>
<td>54.6</td>
<td>8.9</td>
<td>80.6</td>
</tr>
<tr>
<td>Normal Weight (BMI 18.50 – 24.99)</td>
<td>1114</td>
<td>50.8</td>
<td>(50.2 – 51.3)</td>
<td>53.6</td>
<td>9.1</td>
<td>83.1</td>
</tr>
<tr>
<td>Overweight (BMI 25-29.9)</td>
<td>818</td>
<td>49.1</td>
<td>(48.5 – 49.8)</td>
<td>52.0</td>
<td>9.4</td>
<td>90.6</td>
</tr>
<tr>
<td>Obese (BMI 30.00+)</td>
<td>372</td>
<td>45.5</td>
<td>(44.4 – 46.6)</td>
<td>48.8</td>
<td>11.2</td>
<td>125.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underweight (BMI &lt; 18.50)</td>
<td>94</td>
<td>51.4</td>
<td>(49.6 – 53.3)</td>
<td>54.9</td>
<td>9.0</td>
<td>81.1</td>
</tr>
<tr>
<td>Normal weight (BMI 18.50 – 24.99)</td>
<td>1114</td>
<td>52.4</td>
<td>(51.9 – 52.9)</td>
<td>55.1</td>
<td>8.2</td>
<td>67.3</td>
</tr>
<tr>
<td>Overweight (BMI 25-29.9)</td>
<td>818</td>
<td>53.0</td>
<td>(52.4 – 53.6)</td>
<td>55.9</td>
<td>8.4</td>
<td>71.1</td>
</tr>
<tr>
<td>Obese (BMI 30.00+)</td>
<td>372</td>
<td>50.5</td>
<td>(49.5 – 51.5)</td>
<td>53.1</td>
<td>9.9</td>
<td>98.9</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey
It can be seen from Table 6.6 that people who currently fell into the obese category scored statistically significantly lower on the PCS compared to all other categories of BMI. People who currently fell into the obese also scored statistically significantly lower on the MCS than those who currently fell into the normal weight or overweight categories, but not to those who were classified as underweight.

Table 6.6: Age-sex adjusted Mean SF-12 scores for South Australians by body mass index category aged 18 years and over, 2000

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean (95% CI)</td>
</tr>
<tr>
<td>Underweight</td>
<td>94</td>
<td>49.7 (47.9 – 51.5) <strong>OB</strong></td>
</tr>
<tr>
<td>Normal weight</td>
<td>1114</td>
<td>50.4 (49.8 – 50.9) <strong>OV,OB</strong></td>
</tr>
<tr>
<td>Overweight</td>
<td>818</td>
<td>49.5 (48.9 – 50.2) <strong>N,OB</strong></td>
</tr>
<tr>
<td>Obese</td>
<td>372</td>
<td>45.9 (44.9 – 46.8) <strong>U,OV</strong></td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

U statistically significantly different from those classified as underweight (t-test p<0.05).
N statistically significantly different from those classified as normal (t-test p<0.05).
OB statistically significantly different from those classified as overweight (t-test p<0.05).
OV statistically significantly different from those classified as obese (t-test p<0.05).

Figure 6.3 shows the means scores for MCS and PCS adjusted for age and sex.

Figure 6.3: Age-sex adjusted 2000 mean SF-12 scores for South Australians by body mass index category, aged 18 years and over.
6.4 Smoking Status

Overall, 19.9% (95% CI 18.4-21.5, n=506) of respondents were current smokers, 39.3% (95% CI 37.4-41.2, n=1000) were ex-smokers and 40.8% (95% CI 38.9-42.8, n=1039) were non-smokers.

Table 6.7 shows the SF-12 means scores for South Australians according to their smoking status for the year 2000.

Table 6.7: Mean SF-12 scores for South Australians by smoking status aged 18 years and over, 2000

<table>
<thead>
<tr>
<th>Smoking Status</th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-smoker</td>
<td>1039</td>
<td>49.8</td>
<td>(50.4 – 50.6)</td>
<td>53.0</td>
<td>9.8</td>
<td>96.2</td>
</tr>
<tr>
<td>Ex-smoker</td>
<td>1000</td>
<td>48.7</td>
<td>(48.1 – 49.3)</td>
<td>51.8</td>
<td>9.9</td>
<td>98.2</td>
</tr>
<tr>
<td>Current smoker</td>
<td>506</td>
<td>49.2</td>
<td>(48.3 – 50.1)</td>
<td>52.2</td>
<td>9.8</td>
<td>95.8</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-smoker</td>
<td>1039</td>
<td>51.9</td>
<td>(51.3 – 52.4)</td>
<td>54.9</td>
<td>9.0</td>
<td>81.4</td>
</tr>
<tr>
<td>Ex-smoker</td>
<td>1000</td>
<td>53.2</td>
<td>(52.7 – 53.7)</td>
<td>55.8</td>
<td>8.3</td>
<td>65.9</td>
</tr>
<tr>
<td>Current smoker</td>
<td>506</td>
<td>51.3</td>
<td>(50.5 – 52.0)</td>
<td>53.5</td>
<td>8.6</td>
<td>73.2</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 6.8 that current smokers score statistically significantly lower on the PCS than people who are non-smokers or ex-smokers. Ex-smokers score statistically significantly lower on the MCS than people who are current smokers or non-smokers.
### Table 6.8: Age-sex adjusted SF-12 Mean scores for South Australians by smoking status aged 18 years and over, 2000

<table>
<thead>
<tr>
<th>Smoking Status</th>
<th>n</th>
<th>PCS Mean (95% CI)</th>
<th>MCS Mean (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-smoker</td>
<td>1039</td>
<td>49.7 (49.2 – 50.3)</td>
<td>52.0 (51.5 – 52.6)</td>
</tr>
<tr>
<td>Ex-smoker</td>
<td>1000</td>
<td>49.6 (49.0 – 50.2)</td>
<td>52.9 (52.3 – 53.4)</td>
</tr>
<tr>
<td>Current smoker</td>
<td>506</td>
<td>47.5 (46.7 – 48.3)</td>
<td>51.6 (50.9 – 52.4)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

C statistically significantly different from those who are current smokers (t-test p<0.05).
E statistically significantly different from those who are ex smokers (t-test p<0.05).
N statistically significantly different from those who are non smokers (t-test p<0.05).

Figure 6.4 shows the means scores for MCS and PCS adjusted for age and sex.

**Figure 6.4: Age-sex adjusted 2000 mean SF-12 scores for South Australians by smoking status, aged 18 years and over.**
6.5 Alcohol Use

Respondents were asked how many days during the week they consumed alcohol, as well as the number of drinks they usually consumed in a day. Alcohol risk was then calculated using this information to categorise respondents into non-drinkers, no risk drinkers, low risk drinkers, intermediate risk drinkers, high risk drinkers and very high risk drinkers. Overall, 53.5% (95% CI 51.5-55.4, n=1361) of respondents in South Australia were non-alcohol drinkers or were classified as no risk, 43.2% (95% CI 41.3-45.2, n=1099) of respondents were low risk drinkers and 3.3% (95% CI 2.7-4.1, n=84) of respondents were intermediate to very high risk. Table 6.9 shows the SF-12 means scores for South Australians in different alcohol drinking categories for the year 2000.

Table 6.9: Mean SF-12 scores for South Australians in each drinking category aged 18 years and over, 2000

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Alcohol or no risk</td>
<td>1361</td>
<td>48.1</td>
<td>(47.5 – 48.6)</td>
<td>51.7</td>
<td>10.3</td>
<td>105.9</td>
</tr>
<tr>
<td>Low risk</td>
<td>1099</td>
<td>50.7</td>
<td>(50.2 – 51.2)</td>
<td>53.4</td>
<td>9.1</td>
<td>82.5</td>
</tr>
<tr>
<td>Intermediate to very high risk</td>
<td>84</td>
<td>49.4</td>
<td>(47.3 – 51.5)</td>
<td>50.6</td>
<td>9.8</td>
<td>97.1</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Alcohol or no risk</td>
<td>1361</td>
<td>52.7</td>
<td>(52.2 – 53.1)</td>
<td>55.7</td>
<td>8.6</td>
<td>74.6</td>
</tr>
<tr>
<td>Low risk</td>
<td>1099</td>
<td>51.7</td>
<td>(51.2 – 52.2)</td>
<td>54.0</td>
<td>8.6</td>
<td>74.1</td>
</tr>
<tr>
<td>Intermediate to very high risk</td>
<td>84</td>
<td>53.5</td>
<td>(51.8 – 55.3)</td>
<td>55.7</td>
<td>7.9</td>
<td>62.9</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 6.10 that people who were non-drinkers or in the no risk drinking category, as well as those in the intermediate to very high risk category scored statistically significantly lower category on the PCS than people in the low drinking risk category. There were no statistically significant differences between categories for the MCS.
### Table 6.10: Age-sex adjusted Mean SF-12 scores for South Australians in each drinking category aged 18 years and over, 2000

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean (95% CI)</td>
</tr>
<tr>
<td>Non-alcohol or no</td>
<td>1361</td>
<td>48.2 (47.7 – 48.8)(^L)</td>
</tr>
<tr>
<td>risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low risk</td>
<td>1099</td>
<td>50.7 (49.9 – 51.2)(^N,I)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate to very high risk</td>
<td>84</td>
<td>48.4 (46.5 – 50.4)(^L)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

\(N\) statistically significantly different from those who were non-drinkers on in the no risk category (t-test \(p<0.05\)).

\(L\) statistically significantly different from those who were in the low risk category (t-test \(p<0.05\)).

\(I\) statistically significantly different from those who were in the intermediate to very high risk category (t-test \(p<0.05\)).

Figure 6.5 shows the means scores for MCS and PCS adjusted for age and sex for each drinking category.

**Figure 6.5: Age-sex adjusted 2000 Mean SF-12 scores for South Australians in the each drinking category aged 18 years and over, overall and age adjusted by sex.**
Multiple health risk factors were derived by accumulating the five health risk factors that were reported. These health conditions are high blood pressure, high cholesterol, overweight and obesity, smoking and high risk alcohol use. Overall 36.8% (n=937) of people aged 18 and over had none of the risk factors listed, 42.7% (n=1088) had one risk factor, 16.1% (n=409) had two risk factors, and 4.4% (n=111) had three to four risk factors. No respondents reported that they had more than four risk factors. Table 6.11 shows the mean SF-12 scores for people with at least one or more health risk factors for the year 2000.

Table 6.11: Mean SF-12 scores for South Australians with at least one or more health risk factors conditions aged 18 years and over, 2000

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No health risk factors</td>
<td>1436</td>
<td>51.3</td>
<td>(50.8 – 51.9)</td>
<td>54.1</td>
<td>8.7</td>
<td>75.3</td>
</tr>
<tr>
<td>One health risk factors</td>
<td>705</td>
<td>48.9</td>
<td>(48.4– 49.6)</td>
<td>52.2</td>
<td>9.8</td>
<td>96.1</td>
</tr>
<tr>
<td>Two health risk factors</td>
<td>261</td>
<td>46.8</td>
<td>(45.8 – 47.8)</td>
<td>50.4</td>
<td>10.5</td>
<td>110.9</td>
</tr>
<tr>
<td>Three or four health risk factors</td>
<td>143</td>
<td>43.4</td>
<td>(41.1 – 45.7)</td>
<td>45.9</td>
<td>12.2</td>
<td>148.9</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No health risk factors</td>
<td>1436</td>
<td>52.3</td>
<td>(51.8 – 52.9)</td>
<td>55.1</td>
<td>8.3</td>
<td>68.1</td>
</tr>
<tr>
<td>One health risk factors</td>
<td>705</td>
<td>52.6</td>
<td>(52.1 – 53.1)</td>
<td>55.2</td>
<td>8.4</td>
<td>71.1</td>
</tr>
<tr>
<td>Two health risk factors</td>
<td>261</td>
<td>51.8</td>
<td>(50.9 – 52.7)</td>
<td>54.9</td>
<td>9.5</td>
<td>90.7</td>
</tr>
<tr>
<td>Three or four health risk factors</td>
<td>143</td>
<td>49.8</td>
<td>(47.9 – 51.5)</td>
<td>52.6</td>
<td>9.5</td>
<td>89.7</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 6.12 that South Australians with one or more health risk factors scored statistically significantly lower on the PCS than people who did not have any health risk factors. People with two or more health risk factors score
statistically significantly lower on the MCS scale than people who do not any health risk factors.

**Table 6.12: Age sex adjusted SF-12 Mean scores for South Australians with at least one or more Health Risk Factors aged 18 years and over, 2000**

<table>
<thead>
<tr>
<th></th>
<th>PCS</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean (95% CI)</td>
</tr>
<tr>
<td>No health risk factors</td>
<td>1436</td>
<td>50.8 (50.2 – 51.4)</td>
</tr>
<tr>
<td>One health risk factors</td>
<td>705</td>
<td>49.1 (48.6 – 49.7)</td>
</tr>
<tr>
<td>Two health risk factors</td>
<td>261</td>
<td>47.2 (46.3 – 48.0)</td>
</tr>
<tr>
<td>Three or four health risk factors</td>
<td>143</td>
<td>44.7 (43.1 – 46.4)</td>
</tr>
</tbody>
</table>


Figure 6.6 shows the means scores for MCS and PCS adjusted for age and sex. Analyses showed that an increasing number of conditions contributed to a statistically significant decline in both PCS scores ($F=1749$, $df=4$, $p<0.01$), and also MCS scores ($F=1540.54$, $df=4$, $p<0.01$)

**Figure 6.6: Age-sex adjusted 2000 SF-12 mean scores for South Australians with one or more Health Risk Factors, aged 18 years and over.**
CHAPTER 7: SF-12 BY DIFFERENT POPULATION GROUPS

This section presents the South Australian mean SF-12 scores for different health regions: South Australian Divisions of General Practice, Socio-Economic Index for Areas (SEIFA), and Accessibility/Remoteness Index of Australia (ARIA) classification. Age and sex adjusted scores were presented to test for significant differences.

7.1 South Australian Divisions of General Practice

Table 7.1 shows the proportion of South Australians in each Division of General Practice.

Table 7.1: Proportion of respondents in each South Australian Division of General Practice aged 18 years and over.

<table>
<thead>
<tr>
<th>Division of General Practice</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide Central and Eastern</td>
<td>338</td>
<td>13.3</td>
</tr>
<tr>
<td>Adelaide Northern</td>
<td>295</td>
<td>11.6</td>
</tr>
<tr>
<td>Adelaide North East</td>
<td>246</td>
<td>9.7</td>
</tr>
<tr>
<td>Adelaide Southern</td>
<td>679</td>
<td>26.7</td>
</tr>
<tr>
<td>Adelaide Western</td>
<td>322</td>
<td>12.7</td>
</tr>
<tr>
<td>Adelaide Hills</td>
<td>107</td>
<td>4.2</td>
</tr>
<tr>
<td>Barossa</td>
<td>81</td>
<td>3.2</td>
</tr>
<tr>
<td>Eyre Peninsula</td>
<td>102</td>
<td>4.0</td>
</tr>
<tr>
<td>Flinders and Far North</td>
<td>51</td>
<td>2.0</td>
</tr>
<tr>
<td>Limestone Coast</td>
<td>99</td>
<td>3.9</td>
</tr>
<tr>
<td>Mid North Rural</td>
<td>67</td>
<td>2.6</td>
</tr>
<tr>
<td>Murray Mallee</td>
<td>55</td>
<td>2.2</td>
</tr>
<tr>
<td>Riverland</td>
<td>50</td>
<td>2.0</td>
</tr>
<tr>
<td>Yorke Peninsula</td>
<td>52</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

Table 7.2 shows the mean SF-12 scores in each Division of General Practice for the year 2000.
Table 7.2: Mean SF-12 scores for respondents in each South Australian Division of General Practice.

<table>
<thead>
<tr>
<th>Division</th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adelaide Central and Eastern</td>
<td>338</td>
<td>49.3</td>
<td>(48.2 – 50.3)</td>
<td>52.1</td>
<td>9.8</td>
<td>96.7</td>
</tr>
<tr>
<td>Adelaide Northern</td>
<td>295</td>
<td>48.7</td>
<td>(47.6 – 49.8)</td>
<td>51.5</td>
<td>9.6</td>
<td>91.3</td>
</tr>
<tr>
<td>Adelaide North East</td>
<td>246</td>
<td>49.4</td>
<td>(48.2 – 50.6)</td>
<td>53.2</td>
<td>9.7</td>
<td>93.3</td>
</tr>
<tr>
<td>Adelaide Southern</td>
<td>679</td>
<td>49.3</td>
<td>(48.5 – 50.0)</td>
<td>52.7</td>
<td>10.1</td>
<td>101.1</td>
</tr>
<tr>
<td>Adelaide Western</td>
<td>322</td>
<td>50.6</td>
<td>(49.6 – 51.7)</td>
<td>53.7</td>
<td>9.5</td>
<td>91.0</td>
</tr>
<tr>
<td>Adelaide Hills</td>
<td>107</td>
<td>48.2</td>
<td>(46.0 – 50.4)</td>
<td>53.1</td>
<td>11.5</td>
<td>131.9</td>
</tr>
<tr>
<td>Barossa</td>
<td>81</td>
<td>48.2</td>
<td>(46.3 – 50.2)</td>
<td>49.9</td>
<td>8.9</td>
<td>78.2</td>
</tr>
<tr>
<td>Eyre Peninsula</td>
<td>102</td>
<td>49.1</td>
<td>(47.1 – 51.1)</td>
<td>52.9</td>
<td>9.9</td>
<td>99.8</td>
</tr>
<tr>
<td>Flinders and Far North</td>
<td>51</td>
<td>49.9</td>
<td>(47.2 – 52.7)</td>
<td>53.8</td>
<td>9.9</td>
<td>97.5</td>
</tr>
<tr>
<td>Limestone Coast</td>
<td>99</td>
<td>50.2</td>
<td>(48.5 – 51.9)</td>
<td>53.1</td>
<td>8.6</td>
<td>74.5</td>
</tr>
<tr>
<td>Mid North Rural</td>
<td>67</td>
<td>47.6</td>
<td>(45.1 – 50.1)</td>
<td>51.1</td>
<td>10.3</td>
<td>106.3</td>
</tr>
<tr>
<td>Murray Mallee</td>
<td>55</td>
<td>48.1</td>
<td>(45.6 – 50.5)</td>
<td>51.2</td>
<td>9.1</td>
<td>82.3</td>
</tr>
<tr>
<td>Riverland</td>
<td>50</td>
<td>47.8</td>
<td>(44.8 – 50.9)</td>
<td>52.7</td>
<td>10.6</td>
<td>112.8</td>
</tr>
<tr>
<td>Yorke Peninsula</td>
<td>52</td>
<td>48.2</td>
<td>(45.2 – 51.2)</td>
<td>53.1</td>
<td>10.8</td>
<td>115.5</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adelaide Central and Eastern</td>
<td>338</td>
<td>51.8</td>
<td>(50.9 – 52.8)</td>
<td>54.9</td>
<td>9.1</td>
<td>82.8</td>
</tr>
<tr>
<td>Adelaide Northern</td>
<td>295</td>
<td>51.1</td>
<td>(50.1 – 52.1)</td>
<td>54.0</td>
<td>8.8</td>
<td>77.7</td>
</tr>
<tr>
<td>Adelaide North East</td>
<td>246</td>
<td>51.7</td>
<td>(50.6 – 52.9)</td>
<td>55.7</td>
<td>9.6</td>
<td>92.6</td>
</tr>
<tr>
<td>Adelaide Southern</td>
<td>679</td>
<td>52.7</td>
<td>(52.0 – 53.3)</td>
<td>54.9</td>
<td>8.1</td>
<td>66.0</td>
</tr>
<tr>
<td>Adelaide Western</td>
<td>322</td>
<td>51.0</td>
<td>(50.0 – 52.1)</td>
<td>54.9</td>
<td>9.5</td>
<td>89.5</td>
</tr>
<tr>
<td>Adelaide Hills</td>
<td>107</td>
<td>53.6</td>
<td>(52.3 – 54.8)</td>
<td>55.8</td>
<td>6.5</td>
<td>42.5</td>
</tr>
<tr>
<td>Barossa</td>
<td>81</td>
<td>55.2</td>
<td>(53.8 – 56.6)</td>
<td>56.5</td>
<td>6.3</td>
<td>39.3</td>
</tr>
<tr>
<td>Eyre Peninsula</td>
<td>102</td>
<td>53.3</td>
<td>(51.7 – 54.9)</td>
<td>55.5</td>
<td>8.2</td>
<td>66.5</td>
</tr>
<tr>
<td>Flinders and Far North</td>
<td>51</td>
<td>52.1</td>
<td>(49.6 – 54.7)</td>
<td>54.8</td>
<td>9.0</td>
<td>81.4</td>
</tr>
<tr>
<td>Limestone Coast</td>
<td>99</td>
<td>52.7</td>
<td>(51.1 – 54.4)</td>
<td>55.6</td>
<td>8.4</td>
<td>69.8</td>
</tr>
<tr>
<td>Mid North Rural</td>
<td>67</td>
<td>53.9</td>
<td>(52.1 – 55.6)</td>
<td>55.8</td>
<td>7.3</td>
<td>53.8</td>
</tr>
<tr>
<td>Murray Mallee</td>
<td>55</td>
<td>53.5</td>
<td>(51.2 – 55.8)</td>
<td>56.6</td>
<td>8.5</td>
<td>727</td>
</tr>
<tr>
<td>Riverland</td>
<td>50</td>
<td>52.8</td>
<td>(50.3 – 55.2)</td>
<td>55.3</td>
<td>8.5</td>
<td>72.9</td>
</tr>
<tr>
<td>Yorke Peninsula</td>
<td>52</td>
<td>53.6</td>
<td>(51.5 – 55.8)</td>
<td>55.9</td>
<td>7.6</td>
<td>58.4</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey
Table 7.3 shows the age-sex adjusted SF-12 summary scores for the South Australian Divisions of General Practice. The highest scoring areas on the PCS were Flinders and Far North, Adelaide Western, and Limestone Coast Divisions of General Practice and the lowest were Murray Mallee, Riverland and Adelaide Northern Divisions of General Practice. The highest scores for MCS were evident in the Barossa, Mid North Rural and Adelaide Hills Divisions of General Practice, and the lowest were in Adelaide Western, Adelaide Northern, and Adelaide Central and Eastern.

<table>
<thead>
<tr>
<th>Division of General Practice</th>
<th>PCS n</th>
<th>Mean (95% CI)</th>
<th>MCS Mean (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide Central and Eastern</td>
<td>338</td>
<td>49.3 (48.4 – 50.3)</td>
<td>51.9 (50.9 - 52.8)</td>
</tr>
<tr>
<td>Adelaide Northern</td>
<td>295</td>
<td>48.0 (46.9 – 49.1)</td>
<td>51.2 (50.3 - 52.2)</td>
</tr>
<tr>
<td>Adelaide North East</td>
<td>246</td>
<td>49.4 (48.3 – 50.5)</td>
<td>51.9 (50.8 - 52.9)</td>
</tr>
<tr>
<td>Adelaide Southern</td>
<td>679</td>
<td>49.6 (48.9 – 50.3)</td>
<td>52.6 (51.9 - 53.2)</td>
</tr>
<tr>
<td>Adelaide Western</td>
<td>322</td>
<td>50.5 (49.4 – 51.4)</td>
<td>50.9 (50.1 - 51.9)</td>
</tr>
<tr>
<td>Adelaide Hills</td>
<td>107</td>
<td>48.1 (46.4 – 49.9)</td>
<td>53.5 (51.9 - 55.1)</td>
</tr>
<tr>
<td>Barossa</td>
<td>81</td>
<td>48.8 (46.9 – 50.8)</td>
<td>55.0 (53.2 - 56.9)</td>
</tr>
<tr>
<td>Eyre Peninsula</td>
<td>102</td>
<td>48.8 (47.0 – 50.5)</td>
<td>53.5 (51.6 - 54.9)</td>
</tr>
<tr>
<td>Flinders and Far North</td>
<td>51</td>
<td>49.7 (47.2 – 52.2)</td>
<td>52.3 (49.9 - 54.6)</td>
</tr>
<tr>
<td>Limestone Coast</td>
<td>99</td>
<td>50.6 (48.8 – 52.3)</td>
<td>52.6 (50.9 - 54.3)</td>
</tr>
<tr>
<td>Mid North Rural</td>
<td>67</td>
<td>48.2 (45.9 – 50.3)</td>
<td>53.7 (51.7 - 55.7)</td>
</tr>
<tr>
<td>Murray Mallee</td>
<td>55</td>
<td>47.6 (45.2 – 50.0)</td>
<td>53.4 (51.1 - 55.6)</td>
</tr>
<tr>
<td>Riverland</td>
<td>50</td>
<td>47.8 (45.3 – 50.3)</td>
<td>52.8 (50.4 - 55.1)</td>
</tr>
<tr>
<td>Yorke Peninsula</td>
<td>52</td>
<td>48.6 (46.2 – 51.1)</td>
<td>53.4 (51.0 - 55.7)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey
W statistically significantly different from those living in Adelaide Western Division (t-test p<0.05).
B statistically significantly different from those living in Barossa Division (t-test p<0.05).

Figure 7.1 show that some regions scored statistically significant differently in PCS and MCS summary scores. Respondents in the Adelaide Northern Division of General Practice scored statistically significantly lower on PCS scale than those than the Adelaide Western Division.

Respondents in the Barossa Division of General Practice scored statistically significantly higher on MCS scale than Adelaide Central and Eastern, Adelaide Northern, Adelaide North East and Adelaide Western Division of General Practice.
Figure 7.1: Age-sex adjusted 2000 mean SF-12 Physical Component Summary scores for South Australia in each Division of General Practice, aged 18 years and over.

Figure 7.2: Age-sex adjusted 2000 mean SF-12 Mental Component Summary scores for South Australia in each Division of General Practice, aged 18 years and over.
7.2 SEIFA

The Socio-Economic Index for Areas (Index of Relative Socio-Economic Disadvantage) (SEIFA IRSD)\(^{11}\) scores for each South Australian postcode, were divided into five quintiles, where the lowest quintile contained the postcodes with the lowest 20% of socio-economic disadvantage. SF-12 Mean scores were calculated for each SEIFA IRSD quintile. Overall 16.8% (n = 414) of people aged 18 and over fell into the lowest (1\(^{st}\)) SEIFA IRSD quintile, 21.9% (n = 559) fell in the 2\(^{nd}\) SEIFA IRSD quintile, 20.3% (n = 518) fell in the 3\(^{rd}\) SEIFA quintile, and 17.7% (n =451) fell in the 4\(^{th}\) SEIFA IRSD quintile and 23.6% (n =603) fell in the highest (5\(^{th}\)) SEIFA IRSD quintile.

Table 7.4 shows the mean SF-12 scores for South Australians in each SEIFA IRSD quintile for the year 2000.

<table>
<thead>
<tr>
<th>Quintile Description</th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Component Summary (PCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st quintile (lowest)</td>
<td>414</td>
<td>48.1</td>
<td>(47.0 – 49.1)</td>
<td>52.2</td>
<td>10.7</td>
<td>114.3</td>
</tr>
<tr>
<td>2nd quintile</td>
<td>559</td>
<td>49.3</td>
<td>(48.5– 50.1)</td>
<td>51.7</td>
<td>9.2</td>
<td>84.4</td>
</tr>
<tr>
<td>3rd quintile</td>
<td>518</td>
<td>49.7</td>
<td>(48.8 – 50.6)</td>
<td>53.2</td>
<td>10.2</td>
<td>103.3</td>
</tr>
<tr>
<td>4th quintile</td>
<td>451</td>
<td>49.5</td>
<td>(48.6 – 50.4)</td>
<td>53.2</td>
<td>9.8</td>
<td>95.6</td>
</tr>
<tr>
<td>5th quintile (highest)</td>
<td>603</td>
<td>49.4</td>
<td>(48.7 – 50.2)</td>
<td>50.2</td>
<td>9.6</td>
<td>92.1</td>
</tr>
</tbody>
</table>

| Mental Component Summary (MCS) |    |      |              |        |                    |          |
| 1st quintile (lowest)          | 414| 51.4 | (50.5 –52.2)| 53.7   | 8.7                | 74.9     |
| 2nd quintile                  | 559| 51.7 | (50.9 – 52.5)| 54.6   | 9.0                | 81.1     |
| 3rd quintile                  | 518| 52.1 | (51.3 – 52.8)| 55.0   | 8.5                | 72.4     |
| 4th quintile                  | 451| 52.8 | (51.9 – 53.6)| 55.8   | 9.1                | 83.6     |
| 5th quintile (highest)        | 603| 53.2 | (52.6 – 53.8)| 55.2   | 7.8                | 60.5     |

Data Source: 2000 SA Health and Wellbeing Survey
It can be seen from Table 7.5 that South Australians who fell into the lowest (1st) SEIFA IRSD quintile scored statistically significantly lower than people who fell into all higher SEIFA IRSD quintiles on the PCS summary score. Those in the lowest (1st) and 2nd SEIFA IRSD quintile, scored statistically significantly lower than people who fell into the 4th and 5th (highest) SEIFA IRSD quintiles on the MCS summary score. Those in the 3rd SEIFA IRSD quintile also scored statistically significantly lower than people who fell into the 5th (highest) SEIFA IRSD quintile on the MCS summary score. Figure 7.3 shows the mean scores for MCS and PCS adjusted for age and sex.

Table 7.5: Age-sex adjusted Mean SF-12 scores for South Australians for each SEIFA IRSD quintile aged 18 years and over, 2000

<table>
<thead>
<tr>
<th>SEIFA IRSD Quintile</th>
<th>PCS</th>
<th></th>
<th>MCS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean (95% CI)</td>
<td>Mean (95% CI)</td>
<td></td>
</tr>
<tr>
<td>1st quintile (lowest)</td>
<td>414</td>
<td>47.9  (47.0 – 48.8)\textsuperscript{2,3,4,5}</td>
<td>51.4  (50.5 – 52.2)\textsuperscript{4,5}</td>
<td></td>
</tr>
<tr>
<td>2nd quintile</td>
<td>559</td>
<td>49.3  (48.6 – 50.1)\textsuperscript{1}</td>
<td>51.7  (51.0 – 52.4)\textsuperscript{4,5}</td>
<td></td>
</tr>
<tr>
<td>3rd quintile</td>
<td>518</td>
<td>49.5  (48.7 – 50.3)\textsuperscript{1}</td>
<td>52.1  (51.3 – 52.8)\textsuperscript{5}</td>
<td></td>
</tr>
<tr>
<td>4th quintile</td>
<td>451</td>
<td>49.8  (48.9 – 50.6)\textsuperscript{1}</td>
<td>52.9  (52.1 – 53.6)\textsuperscript{1,2}</td>
<td></td>
</tr>
<tr>
<td>5th quintile (highest)</td>
<td>603</td>
<td>49.5  (48.8 – 50.2)\textsuperscript{1}</td>
<td>53.1  (52.4 – 53.8)\textsuperscript{1,2,3}</td>
<td></td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

1 statistically significantly different from those 1st SEIFA quintile (t-test p<0.05).
2 statistically significantly different from those 2nd SEIFA quintile (t-test p<0.05).
3 statistically significantly different from those 3rd SEIFA quintile (t-test p<0.05).
4 statistically significantly different from those 4th SEIFA quintile (t-test p<0.05).
5 statistically significantly different from those 5th SEIFA quintile (t-test p<0.05).

Figure 7.3: Age-sex adjusted 2000 SF-12 mean scores for South Australians for each SEIFA quintile, aged 18 years and over.
7.3 ARIA

Mean SF-12 scores were calculated for three categories of the Accessibility/Remoteness Index of Australia\textsuperscript{12} (ARIA). Overall 80.7\% (n = 2055) of people aged 18 and over resided in the Metropolitan Area, 15.5\% (n = 393) resided in the Rural Area, and 3.8\% (n = 97) resided in the Remote Area.

Table 7.6 shows the mean SF-12 scores for South Australians in each SEIFA quintile for the year 2000.

Table 7.6: Mean SF-12 scores for South Australians in each ARIA Category aged 18 years and over, 2000

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>95% CI</th>
<th>Median</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Component Summary (PCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan</td>
<td>2005</td>
<td>49.3</td>
<td>(48.9 – 49.7)</td>
<td>52.7</td>
<td>9.9</td>
<td>98.3</td>
</tr>
<tr>
<td>Rural</td>
<td>393</td>
<td>48.7</td>
<td>(47.7 – 49.7)</td>
<td>51.7</td>
<td>9.6</td>
<td>92.8</td>
</tr>
<tr>
<td>Remote</td>
<td>97</td>
<td>49.6</td>
<td>(47.7 – 51.5)</td>
<td>53.1</td>
<td>9.4</td>
<td>88.2</td>
</tr>
<tr>
<td><strong>Mental Component Summary (MCS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan</td>
<td>2005</td>
<td>52.0</td>
<td>(51.7 – 52.4)</td>
<td>54.9</td>
<td>8.8</td>
<td>76.5</td>
</tr>
<tr>
<td>Rural</td>
<td>393</td>
<td>54.4</td>
<td>(52.7 – 54.2)</td>
<td>55.9</td>
<td>7.8</td>
<td>60.7</td>
</tr>
<tr>
<td>Remote</td>
<td>97</td>
<td>52.6</td>
<td>(50.9 – 54.4)</td>
<td>55.5</td>
<td>9.7</td>
<td>75.4</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

It can be seen from Table 7.7 that there is no difference in the PCS summary scores between people living in different ARIA categories. Nor is there a difference in MCS scores between those living in Metropolitan and Remote areas. However, those living in Metropolitan areas score statistically significantly lower on the MCS than people who live in Rural areas.
Table 7.7: Age-sex adjusted Mean SF-12 scores for South Australians in each ARIA Category aged 18 years and over, 2000

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>PCS Mean (95% CI)</th>
<th>MCS Mean (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan</td>
<td>2005</td>
<td>49.3 (48.9 – 49.7)</td>
<td>52.0 (51.7 - 52.4)</td>
</tr>
<tr>
<td>Rural</td>
<td>393</td>
<td>49.1 (48.2 – 49.9)</td>
<td>53.3 (52.5 – 54.2)</td>
</tr>
<tr>
<td>Remote</td>
<td>97</td>
<td>49.1 (47.3 – 50.9)</td>
<td>52.7 (51.0 – 54.4)</td>
</tr>
</tbody>
</table>

Data Source: 2000 SA Health and Wellbeing Survey

R statistically significantly different to those living in rural areas (t-test p<0.05).

Figure 7.4 show the mean scores for MCS and PCS adjusted for age and sex across regions.

Figure 7.4 Age-sex adjusted Mean SF-12 scores for South Australians living each ARIA Category aged 18 years and over, 2000.
REFERENCES


July 2003

Dear Householder,

I am writing to seek your assistance in an important health survey being conducted on behalf of a range of organisations which are involved in the delivery of health services to South Australians.

One of our interviewers will be contacting your household in the next few weeks to speak to the adult in the household who had the last birthday. The interview will be conducted over the telephone and will take around 15 minutes. Your phone number has been selected randomly from all telephone listings in the state and over 2000 people will be interviewed. All information collected will be confidential.

Your participation in the survey is very important. The results of the survey will help authorities in planning and developing health services that meet the needs and concerns of your community.

If you have any queries about the survey please contact the Population Health Study Hotline, on 1800 635 352.

Yours sincerely,

Anne Taylor
A/Manager
Population Research and Outcome Studies Unit
APPENDIX 2: HEALTH MONITOR METHODOLOGY
SURVEY DESIGN

A2.1 Sample selection

All households in South Australia with a telephone connected and the telephone number listed in the Electronic White Pages (EWP) were eligible for selection in the sample. Telephone numbers were randomly selected from the Adelaide and country regions EWP telephone listings.

Within each household, the person who had their birthday last, and was 18 years or older, was selected for interview. There was no replacement for non-contactable persons.

A2.1.1 Introductory letter

A letter introducing the survey (Appendix 1) was sent to the household of each selected telephone number. This informed people of the purpose of the survey and indicated that they could expect to be contacted by telephone within the time frame of the survey.

A2.1.2 Questions

The SF-12 questionnaire was obtained from the Health Institute, New England Medical centre, Boston, Massachusetts, where the survey was developed. In addition, 15 demographic questions were asked, as were questions regarding health risk factors. Before the conduct of the main survey, the questionnaire was pilot tested (n=50).

A2.2 Data Collection

Data collection was undertaken by the contracted agency, Harrison Health Research. Pilot testing took place in July 2003. The survey commenced on 9th July 2003 and concluded on 27th July 2003. Telephone calls were made between 10.00 am and 9.00 pm, seven days a week. Professional interviewers conducted the interviews and were supervised by Harrison Health Research and PROS personnel. Disposition codes were supplied to PROS staff daily, or as required, to ensure careful monitoring of survey activities.
On contacting the household, the interviewer initially identified themselves and the purpose of the survey.

**A2.2.1 CATI**

The CATI III (Computer Assisted Telephone Interview) system was used to conduct the interviews. This system allows immediate entry of data from the interviewer’s questionnaire screen to the computer database. The main advantages of this system are the precise ordering and timing of call backs and correct sequencing of questions as specific answers are given. The CATI system enforces a range of checks on each response with most questions having a set of pre-determined response categories. In addition, CATI automatically rotates response categories, when required, to minimise bias. When open-ended responses were required, these were transcribed exactly by the interviewer.

**A2.2.2 Call backs**

At least ten call-backs were made to the telephone number selected to interview household members. Different times of the day or evening were scheduled for each call-back. If a person could not be interviewed immediately they were re-scheduled for interview at a time suitable to them. Where a refusal was encountered, another interviewer generally (at the discretion of the supervisor) called later, in an endeavour to obtain the interview(s). Replacement interviews for persons who could not be contacted or interviewed were not permitted.

**A2.2.3 Validation**

Of each interviewer’s work, 10% was selected at random for validation by the supervisor. In addition, Harrison Health Research is a member of Interviewer Quality Control Australia (IQCA), a national quality control assurance initiative of the Market Research Society of Australia. Accredited organisations must strictly adhere to rigorous quality assurance requirements and are subject to regular audits by IQCA auditors.

**A2.2.4 Response rate**

The overall response rate was 68.5%. Initially, a sample of 3400 was drawn. Sample loss occurred due to fax / modem connections (39), non–connected numbers (374), no contact due to no answer / always busy / answering machine (229), and non–residential numbers (62). From the eligible sample of 2925, the response rate was calculated as shown in Table A2.1.
Table A2.1: Summary of response rate

<table>
<thead>
<tr>
<th>Response rate</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Eligible Sample</td>
<td>2925</td>
<td>100.0</td>
</tr>
<tr>
<td>Refusals</td>
<td>423</td>
<td>14.5</td>
</tr>
<tr>
<td>Non-contact after 10 attempts</td>
<td>251</td>
<td>8.6</td>
</tr>
<tr>
<td>Foreign language</td>
<td>75</td>
<td>2.6</td>
</tr>
<tr>
<td>Incapacitated</td>
<td>103</td>
<td>3.5</td>
</tr>
<tr>
<td>Terminated</td>
<td>6</td>
<td>0.2</td>
</tr>
<tr>
<td>Respondent unavailable</td>
<td>63</td>
<td>2.2</td>
</tr>
<tr>
<td>Completed interviews</td>
<td>2005</td>
<td>68.5</td>
</tr>
</tbody>
</table>

The participation rate, which is the percentage of completed interviews following a successful contact being made with the household, was 81.6%.

A2.3.2 Weighting

Weighting was used to correct for disproportionality of the sample with respect to the population of interest\textsuperscript{16}. The data were weighted by age and sex to reflect the structure of the population in South Australia over the age of 18 years and probability of selection in the household. Probability of selection in the household was calculated on the number of adults in the household and the number of listings in the White Pages that reach the household.
APPENDIX 3: HEALTH MONITOR QUESTIONNAIRE
2003 – JULY (TRUNCATED)

INTRODUCTION
Good …… My name is …………………
I’m calling on behalf of the South Australian Department of Human Services. We are conducting a survey on a range of health issues. You were recently sent a letter about the survey on behalf of the Department of Human Services.

1. Did you receive the letter?
   (single response)
   1. Yes [    ]
   2. No [    ]
   3. Don’t know [    ]

Could I please speak with the person in the household, aged 18 and over, who was the last to have a birthday.

I can assure you that all information given will remain confidential. The answers from all people interviewed will be gathered together and presented in a report. No individual answers will be passed on.

DEMOGRAPHICS
As some of the next questions relate to certain groups of people only, could you please tell me:

2. How old you are?
   (single response)
   1. Enter age __ __
   2. Not stated [999]

Sequence Guide: If 2 < 999 Go to 4.

3. Which age group are you in? Would it be …
   (Read options - single response)
   1. 18 to 24 years [    ]
   2. 25 to 34 years [    ]
   3. 35 to 44 years [    ]
   4. 45 to 54 years [    ]
   5. 55 to 64 years [    ]
   6. 65 to 70 years [    ]
   7. 71 to 74 years [    ]
   8. 75 years or over [    ]
   9. Refused [    ]
   If 3 = 9 End interview.

4. Voice (ask if unsure)
   (single response)
   1. Male [    ]
   2. Female [    ]

5. Including yourself, how many people aged 18 and over live in this household?
   (Single response. Enter number of people 18 years and over. Enter 0 if none)
   1. Enter number __ __
   2. Not stated [999]

6. How many children under 18 years live in your household?
   (Single response. Enter number of people 18 years and over)
   1. Enter number __ __
   2. Not stated [999]

7. What is the postcode of the house?
   (Single response. Enter number 5999 if not known)
   1. Enter number __ __
   2. Not stated [5999]

Sequence Guide: If 7 < 5999 Go to 9

8. What town or suburb do you live in?
   (Single response, enter town/suburb)
   1. Enter town/suburb ____________
QUALITY OF LIFE (SF12)

These first few questions ask for your views about your health.

9. In general, would you say your health is:

(Read options - single response)
1. Excellent [    ]
2. Very good [    ]
3. Good [    ]
4. Fair [    ]
5. Poor [    ]

The following items are about activities that you might do during a typical day.

10. Does your health now limit you in undertaking moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf? Does your health limit you?

(Read option, single response)
1. A lot [    ]
2. A little [    ]
3. Not at all [    ]

11. What about climbing several flights of stairs? Does your health limit you?

(Read options - single response)
1. A lot [    ]
2. A little [    ]
3. Not at all [    ]

12. During the past four weeks, have you accomplished less than you would like with your work or other regular daily activities as a result of your physical health?

(Read options - single response)
1. Yes [    ]
2. No [    ]

13. During the past four weeks, were you limited in the kind of work or other activities as a result of your physical health?

(Read options - single response)
1. Yes [    ]
2. No [    ]

14. During the past four weeks, have you accomplished less than you would like with your work or other regular daily activities as a result of any emotional problems, such as feeling depressed or anxious?

(Read options - single response)
1. Yes [    ]
2. No [    ]

15. During the past four weeks, did you not do work or other activities as carefully as usual as a result of any emotional problems, such as feeling depressed or anxious?

(Read options - single response)
1. Yes [    ]
2. No [    ]

16. During the past four weeks, how much did pain interfere with your normal work, including both work outside the home and housework?

(Read options - single response)
1. Not at all [    ]
2. A little bit [    ]
3. Moderately [    ]
4. Quite a bit [    ]
5. Extremely [    ]

The next few questions are about how you feel and how things have been with you during the past 4 weeks. Please give the one answer that comes closest to the way you have been feeling.
17. How much of the time during the past four weeks have you felt calm and peaceful?
   (Read options - single response)
   1. All of the time
   2. Most of the time
   3. A good bit of the time
   4. Some of the time
   5. A little of the time
   6. None of the time

18. How much of the time during the past four weeks did you have a lot of energy?
   (Read options - single response)
   1. All of the time
   2. Most of the time
   3. A good bit of the time
   4. Some of the time
   5. A little of the time
   6. None of the time

19. How much of the time during the past four weeks have you felt downhearted and blue (or down)?
   (Read options - single response)
   1. All of the time
   2. Most of the time
   3. A good bit of the time
   4. Some of the time
   5. A little of the time
   6. None of the time

20. During the past four weeks, how much of the time has your physical health or emotional problems interfered with your social activities like visiting friends or relatives?
   (Read options - single response)
   1. All of the time
   2. Most of the time
   3. Some of the time
   4. A little of the time
   5. None of the time

E. DEMOGRAPHICS

Now, to finish with some general questions

21. What is your marital status?
   (Read options - single response)
   1. Married
   2. Living with a partner
   3. Separated
   4. Divorced
   5. Widowed
   6. Never married
   7. Refused

22. What is your work status?
   (Read options if necessary, single response)
   1. Full time employed
   2. Part time/casual employment
   3. Unemployed
   4. Home duties
   5. Retired
   6. Student
   7. Disability pension/WorkCover/Invalid
   8. Other (specify)
   9. Refused

   If 22 = 1 or 2 go to 24

23. Do you receive any of the following pension benefits?
   (Read options, multiple response)
   1. Aged/widow’s pension
   2. Service or defence / war widow’s/ Repatriation Pension
   3. Invalid/ Disability pension
   4. Unemployment benefits
   5. Sickness benefits
   6. Supporting parents benefit
7. AUSTUDY/student allowance [ ]
8. Other (specify) _____
9. None [ ]
10. Refused [ ]

24. What is your country of birth? (single response)
   1. Australia [ ]
   2. Austria [ ]
   3. Bosnia-Herzegovina [ ]
   4. Canada [ ]
   5. China [ ]
   6. Croatia [ ]
   7. France [ ]
   8. Germany [ ]
   9. Greece [ ]
  10. Holland/Netherlands [ ]
  11. Hong Kong [ ]
  12. Iran [ ]
  13. Italy [ ]
  14. Japan [ ]
  15. Malaysia [ ]
  16. New Zealand [ ]
  17. Philippines [ ]
  18. Poland [ ]
  19. Slovenia [ ]
  20. Spain [ ]
  21. U.K. and Ireland [ ]
  22. USA [ ]
  23. Vietnam [ ]
  24. Former Yugoslav Republic of Macedonia [ ]
  25. Former Yugoslav Republics of Serbia & Montenegro [ ]
  26. Other country (specify) ______________________
  27. Refused [ ]

25. Which best describes the highest educational qualification you have obtained? (Read options - single response)
   1. Still at school [ ]
   2. Left school at 15 years or less [ ]
   3. Left school after age 15 [ ]
   4. Left school after age 15 but still studying [ ]
   5. Trade / Apprenticeship [ ]
   6. Certificate / Diploma [ ]
   7. Bachelor degree or higher [ ]
   8. Refused [ ]

26. The next question is about housing. Is this dwelling … (Read options - single response)
   1. Owned or being purchased by the occupants [ ]
   2. Rented from the Housing Trust [ ]
   3. Cooperative housing [ ]
   4. Rented privately [ ]
   5. Retirement village [ ]
   6. Other (specify) _____
   7. Refused [ ]

27. How many years/months have you lived in the [neighbourhood / community]? (single response)
   1. Enter number of years _____
   2. Enter number of months _____
   3. Don't know [ ]
   4. Refused [ ]
28. I would now like to ask you about your household's income. We are interested in how income relates to health, lifestyle and access to health services. Can you tell me the approximate annual gross income of your household? That is, for all people in the household before tax is taken out. I'll read out some categories and could you please tell me into which one your household's income falls?

1. (Read options - single response)

2. Up to $12,000 [ ]
3. $12,001 - $20,000 [ ]
4. $20,001 - $40,000 [ ]
5. $40,001 - $60,000 [ ]
6. $60,001 - $80,000 [ ]
7. More than $80,000 [ ]
8. Not stated / refused [ ]
9. Don't know [ ]
October 2000

Dear Householder

I am writing to seek your assistance in an important health survey being conducted on behalf of the [state’s health department] and the Commonwealth Department of Health and Aged Care during the months of November and December. Your telephone number has been selected randomly from the [state] White Pages telephone book.

An interviewer will be contacting your household in the next few weeks. They will ask you a few questions about the ages of the people in your house and then they will ask to speak with the person aged eighteen or over who has had the most recent birthday. This person will be asked to participate in an interview over the telephone. The interview will take about fifteen minutes.

About 2,500 people will be selected to be interviewed and all information collected will be strictly confidential. The results of the survey will help us in planning and developing health services that meet the needs of your local community.

If you have any queries about the survey, please call [Manager of the Population Survey in each state] on [1800 number].

I would like to thank you in advance for your support and assistance with this important survey.
A5.1 Survey Design

A5.1.1 Sample selection

All households in SA with a telephone connected and the telephone number listed in the latest version of the EWP (Electronic White Pages) were eligible for selection in the sample. The target number of interviews for South Australia was 2500.

In this study, the total number of interviews for South Australia were determined to be distributed as 900 interviews in the metropolitan area, 800 interviews in rural areas, and 800 interviews in remote areas. The minimum sample size of 800 was necessary to enable populations estimates of health conditions and behaviours to be made with a reasonable confidence intervals. A random sample of the whole state would be representative of the population structure, but health estimates for rural and remote areas would have wide confidence intervals. Such estimates would do little to describe health in the less populated areas of the state. A stratified sample was therefore determined to be the best use of survey resources.

As a consequence of the need to over-sample non-metropolitan areas, separate samples were drawn for each of the three geographic regions (metro/rural/remote). These samples represented increasing proportions of the population as remoteness increased. A summary of the target number of interviews as a proportion of the estimated residential population in each region in 1999 is shown in Table A5.1. The estimated residential population figures supplied by the Australian Bureau of Statistics were the most up-to-date available at the time of sampling and were used for these purposes.

The initial sample sizes drawn from the EWP were based on the best recent estimates of response rates available to the survey team.
Table A5.1: Target interviews by region as a proportion of population size

<table>
<thead>
<tr>
<th>Region</th>
<th>Target interviews</th>
<th>Residential population 18+ *</th>
<th>Sample proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan</td>
<td>900</td>
<td>933,554</td>
<td>0.1%</td>
</tr>
<tr>
<td>Rural</td>
<td>800</td>
<td>169,374</td>
<td>0.5%</td>
</tr>
<tr>
<td>Remote</td>
<td>800</td>
<td>34,801</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

* Estimated Residential Population – ABS 1999

Within each household, the person who had their birthday last was selected for interview. There was no replacement for non-contactable persons.

**A5.1.2 Definition of geographic regions**

The state can be divided into three regions representing metropolitan (capital city), rural, and remote areas. The rural and remote areas were substantially less populated than the metropolitan region. Rural and remote areas were a particular focus of the survey in terms of assessing health status and health service planning requirements. Defining remoteness of population locations from health and other services has been an issue of considerable discussion in recent years and has resulted in two classifications: Rural, Remote and Metropolitan Area (RRMA) and the Accessibility/Remoteness Index of Australia (ARIA).

Regions were defined as aggregations of postcode areas in the state. Postcodes were taken as the geographic reference as this was the only reliable location data available in the telephone listing database that could be extrapolated to larger regions. Postcodes are readily translated to SLA’s (Statistical Local Areas) in which estimated population numbers are published. This connection between address and ABS data was necessary for weighting of the data to reflect population proportions by age and gender.

The definitions of regions in South Australia were based on ARIA (Accessibility/Remoteness Index of Australia) codes. ARIA seeks to define remoteness from services in terms of distance by road. All populated locations in Australia are given an ARIA value ranging from 0 for high accessibility to 12 for high remoteness. This index is also available as five categories, which are better suited to classifications such as required by the present study. ARIA categories were used to define regions in SA in the following way:

- Highly Accessible (ARIA score 0-1.84) defined metropolitan.
• Accessible (ARIA score 1.84-3.51) and Moderately Accessible (ARIA score 3.51-5.80) together defined rural; and
• Remote (ARIA score 5.80-9.08) and Very Remote (ARIA score 9.08-12) together defined remote regions.

A5.1.3 Introductory letter

A letter introducing the health survey (Appendix 4) was sent to the household of each selected telephone number. The letter informed people of the purpose of the survey and indicated that they could expect to be contacted by telephone within the time frame of the survey.

A5.1.4 Questions

Initial questionnaire design was based on a previous SERCIS survey. Modifications were made based on management group discussions and individual state/territory sub-committee recommendations.

The full list of questions asked in this survey is contained in Appendix 6.

A5.1.5 Pilot testing

Before the conduct of the main survey, the questionnaire was pilot tested (n=50). Pilot testing took place from Tuesday 17th October 2000 to Thursday 19 October 2000. Modifications were made to the questionnaire following the debrief on Friday 20th October.

A5.2 Data collection

Data collection was undertaken by the contacted agency, Harrison Health Research. The survey commenced on 1st November 2000 and concluded on Thursday 21st December. Telephone calls were made between 9:30 am and 9.00 pm, seven days a week. Professional interviewers conducted the interviews and were supervised by Harrison
Health Research and SERCIS personnel. Disposition codes were supplied to SERCIS staff daily, or as required, to ensure careful monitoring of survey activities.

On contacting the household, the interviewer initially identified themselves and the purpose of the survey.

**A5.2.1 CATI**

The CATI III (Computer Assisted Telephone Interview) system was used to conduct the interviews. This system allows immediate entry of data from the interviewer’s questionnaire screen to the computer database. The main advantages of this system are the precise ordering and timing of call backs and correct sequencing of questions as specific answers are given. The CATI system enforces a range of checks on each response with most questions having a set of pre-determined response categories. In addition, CATI automatically rotates response categories, when required, to minimise bias. When open-ended responses were required, these were transcribed exactly by the interviewer.

**A5.2.2 Call backs**

At least six call-backs were made to the telephone number selected to interview household members. Different times of the day or evening were scheduled for each call-back. If a person could not be interviewed immediately they were re-scheduled for interview at a time suitable to them. Where a refusal was encountered, another interviewer generally (at the discretion of the supervisor) called later, in an endeavour to obtain the interview(s). Replacement interviews for persons who could not be contacted or interviewed were not permitted.

**A5.2.3 Validation**

Of each interviewer’s work, 10% was selected at random for validation by the supervisor. In addition, Harrison Health Research is a member of Interviewer Quality Control Australia (IQCA), a national quality control assurance initiative of the Market Research Society of Australia. Accredited organisations must strictly adhere to rigorous quality assurance requirements and are subject to regular audits by IQCA auditors.
A5.2.4 Response rate

The overall response rate was 63.8%. Initially a sample of 5170 was drawn. Sample loss of 1181 occurred due to non-connected numbers (844), non-residential numbers (153), respondent unavailable (145) and fax/modem connections (39). From the eligible sample of 3989, the response rate and participation rate were calculated as shown in Table A5.2.

Table A5.2: Response rates

<table>
<thead>
<tr>
<th>Description</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial eligible sample</td>
<td>3989</td>
<td>100.0</td>
</tr>
<tr>
<td>Refusals</td>
<td>737</td>
<td>18.5</td>
</tr>
<tr>
<td>Non-contact after six attempts</td>
<td>542</td>
<td>13.6</td>
</tr>
<tr>
<td>Respondent unable to speak English, Italian, Greek, Croatian,</td>
<td>41</td>
<td>1.0</td>
</tr>
<tr>
<td>Chinese (traditional and simplified) or Vietnamese</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incapacitated and unable to be interviewed</td>
<td>98</td>
<td>2.5</td>
</tr>
<tr>
<td>Terminated interviews</td>
<td>12</td>
<td>0.3</td>
</tr>
<tr>
<td>Hearing impaired</td>
<td>14</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Completed interviews</strong></td>
<td><strong>2545</strong></td>
<td><strong>63.8</strong></td>
</tr>
</tbody>
</table>

Response rate $= \frac{\text{completed interviews}}{\text{initial eligible sample}}$

Participation rate $= \frac{\text{completed interviews}}{\text{initial eligible sample} - \text{non-contact after six attempts}}$

A5.2.5 Weighting

The data presented in this report were weighted by age, gender, and probability of selection in the household. Weighting was used to correct for the disproportionality of the sample with respect to the populations of interest. The weights reflect unequal sample inclusion probabilities and compensate for differential non-response. The adult populations, aged 18 years or over, of South Australia were obtained from the Australian Bureau of Statistics. The most recently available population estimates, being the estimated residential population for 1999, were used. The data were weighted using the ABS data so that the health estimates calculated would be representative of the adult populations of those three states.
Probability of selection of the adult in the household was calculated from the number of adults in the household and the number of telephone listings in the EWP that reach the household.

As each region involved a discrete sample, these were weighted separately. The estimated residential populations in regions were aggregated from SLA's using the geographic information used to define the regions (see Section 1.2.2). Combined weights to enable state level analyses were constructed from the region weights by applying the sampling proportions in each region. In this way, metropolitan responses, for example, were weighted up slightly and remote responses were weighted down substantially.
APPENDIX 6: SA, NT and WA CATI Health and Wellbeing Survey November 2000

Introduction

Good ....... My name is ....... from the SA Dept of Human Services/Health Dept of WA/Territory Health Services. We are conducting a survey about the health needs of Australians.

We recently sent you a letter telling you about the survey. Did you receive the letter?

1. (Single Response)
   1. Yes [    ]
   2. No [    ]
   3. Don't know [    ]

Could I please speak with the person in the household, aged 18 and over, who was the last to have a birthday.

I can assure you that information given will remain confidential. The answers from all people interviewed will be gathered together and presented in a report. No individual answers will be passed on.

Interviewer select the appropriate type:

1. Respondent [    ]
2. Foreign language interviewer required [    ] Enter language
3. Refusal [    ] Enter reasons

A. DEMOGRAPHICS

As some of the next questions relate to certain groups of people only could you please tell me

2. What was your age at last birthday?
   (Single Response. Enter 999 if not stated)
   1. Enter age [    ]
   2. Not stated [999]

3. Voice (ask if unsure)
   1. Male [    ]
   2. Female [    ]

4. Including yourself how many people aged 18 and over live in this household?
   (Single Response. Interviewer note: enter number of people 18 years and over)
   1. Enter number [    ]
   2. Not stated [999]

5. How many children (including babies) under 18 years live in your household?
   (Single Response. Interviewer note: enter number of people 18 years and over)
   1. Enter number [    ]
   2. None [    ]
   3. Not stated [999]

6. What is the Postcode of the house?
   (Single Response)
   1. Enter postcode [    ]
   2. Not stated [999]

Sequence Guide: For SA & WA If 6 < 9999 Go to Section 0

7. What town, suburb or community do you live in?
   (Single Response.)
   1. Enter town/suburb [    ]
   2. Not stated [    ]
B. QUALITY OF LIFE (SF12)

These first few questions ask for your views about your health.

8. In general, would you say your health is:
   (Read Options. Single Response)
   1. Excellent [ ]
   2. Very good [ ]
   3. Good [ ]
   4. Fair [ ]
   5. Poor [ ]

The following items are about activities that you might do during a typical day.

9. Does your health now limit you in undertaking moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf? Does your health limit you?
   (Read Options. Single Response)
   1. A lot [ ]
   2. A little [ ]
   3. Not at all [ ]

10. What about climbing several flights of stairs? Does your health limit you?
    (Read Options. Single Response)
    1. A lot [ ]
    2. A little [ ]
    3. Not at all [ ]

11. During the past four weeks, have you accomplished less than you would like with your work or other regular daily activities as a result of your physical health?
    (Read Options. Single Response)
    1. Yes [ ]
    2. No [ ]

12. During the past four weeks, were you limited in the kind of work or other activities as a result of your physical health?
    (Read Options. Single Response)
    1. Yes [ ]
    2. No [ ]

13. During the past four weeks, have you accomplished less than you would like with your work or other regular daily activities as a result of any emotional problems, such as feeling depressed or anxious?
    (Read Options. Single Response)
    1. Yes [ ]
    2. No [ ]

14. During the past four weeks, did you not do work or other activities as carefully as usual as a result of any emotional problems, such as feeling depressed or anxious?
    (Read Options. Single Response)
    1. Yes [ ]
    2. No [ ]

15. During the past four weeks, how much did pain interfere with your normal work, including both work outside the home and housework?
    (Read Options. Single Response)
    1. Not at all [ ]
    2. A little bit [ ]
    3. Moderately [ ]
    4. Quite a bit [ ]
    5. Extremely [ ]

The next few questions are about how you feel and how things have been with you during the past 4 weeks. Please give the one answer that comes closest to the way you have been feeling.

16. How much of the time during the past four weeks have you felt calm and peaceful?
    (Read Options. Single Response)
    1. All of the time [ ]
    2. Most of the time [ ]
    3. A good bit of the time [ ]
    4. Some of the time [ ]
    5. A little of the time [ ]
    6. None of the time [ ]
17. How much of the time during the past four weeks did you have a lot of energy? 
(Read Options. Single Response) 
1. All of the time [ ] 
2. Most of the time [ ] 
3. A good bit of the time [ ] 
4. Some of the time [ ] 
5. A little of the time [ ] 
6. None of the time [ ] 

18. How much of the time during the past four weeks have you felt downhearted and blue (or down)? 
(Read Options. Single Response) 
1. All of the time [ ] 
2. Most of the time [ ] 
3. A good bit of the time [ ] 
4. Some of the time [ ] 
5. A little of the time [ ] 
6. None of the time [ ] 

19. During the past four weeks, how much of the time has your physical health or emotional problems interfered with your social activities like visiting friends or relatives? 
(Read Options. Single Response) 
1. All of the time [ ] 
2. Most of the time [ ] 
3. A good bit of the time [ ] 
4. Some of the time [ ] 
5. A little of the time [ ] 
6. None of the time [ ] 

C. CO-MORBIDITY

The next few questions are about specific health condition.

20. Have you ever been told by a doctor that you have any of the following conditions? 
(Read Options. Multiple Response) 
1. Diabetes [ ] 
2. Arthritis [ ] 
3. Heart disease [ ] 
4. Stroke [ ] 
5. Cancer [ ] 
6. Osteoporosis (not osteoarthritis) [ ] 
7. None [ ] 

21. Have you ever been told by a doctor that you have asthma? 
(Single Response) 
1. Yes [ ] 
2. No [ ] Go to 23 

22. Do you still have asthma? 
(Single Response) 
1. Yes [ ] 
2. No [ ] 
3. Don’t know [ ] 

23. Have you ever been told by a doctor that you have any other respiratory problem (Bronchitis, Emphysema, Chronic Lung Disease) that has lasted six months or more? 
(Single Response) 
1. Yes [ ] 
2. No [ ] Go to 25 
3. Don’t know [ ] Go to 25 

24. Do you still have these (this) other respiratory problem(s)? 
(Single Response) 
1. Yes [ ] 
2. No [ ] 

25. Have you ever been told by a doctor that you have high cholesterol? 
(Single Response. Interviewer note: include never measured response into no category) 
1. Yes [ ] 
2. No [ ] Go to 27 
3. Don’t know [ ] Go to 27 

26. Do you still have high cholesterol? 
(Single Response) 
1. Yes [ ] 
2. No [ ] 
3. Don’t know [ ]
27. Have you ever been told by a doctor that you have High Blood Pressure?
   (Single Response. Interviewer note: include never measured response into no category)
   1. Yes [ ]
   2. No [ ] Go to 29
   3. Don’t know [ ] Go to 29

28. Do you still have High Blood Pressure?
   (Single Response)
   1. Yes [ ]
   2. No [ ]
   3. Don’t know [ ]

29. In the last 12 months have you had an injury that has required medical treatment eg at a hospital or clinic?
   (Single Response. Interviewer note: The Royal Flying Doctors is included)
   1. Yes [ ]
   2. No [ ]

D. MEDICATION USE

30. In the last 2 weeks have you regularly taken any tablets or medicines bought from a pharmacy, supermarket, health shop etc?
   (Single Response)
   1. Yes [ ]
   2. No [ ] Go to next section

31. In regard to the main medicine you take, is the medicine prescribed by a doctor?
   (Single Response)
   1. Yes [ ]
   2. No [ ]

E. HEALTH CARE UTILISATION

Now some questions about the use of health services.

32. How many times in the last 12 months, have you used these health services in [SA, WA, NT]?
   (Read Options. Rotate options. Multiple Response. Interviewer note: Enter number of times or 999 if not known. Not a hospital admission)
   1. Primary health care eg general practitioner, community health centre, community or district nurses [ ]
   2. A mental health service eg psychiatrist psychologist, counsellor [ ]
   3. Hospital based services eg accident & emergency department, day surgery or procedure or outpatients department or clinic (specialist/allied health) but not an overnight stay [ ]
   4. Allied health services eg physiotherapist, chiropractor, acupuncturist, naturopath, osteopath, podiatrist [ ]
   5. None of the above [ ]

33. In the last 12 months, how many nights, have you spent in
   (Read Options. Multiple response. Interviewer note: Enter number of times or 999 if not known)
   1. A Private hospital [ ]
   2. A Public hospital [ ]
   3. None [ ]

F. KESSLER PSYCHOLOGICAL DISTRESS SCALE

The next questions are about how you have been feeling in the last 4 weeks.

34. In the past four weeks, about how often did you feel tired out for no good reason?
   (Read Options. Single Response)
   1. All of the time [ ]
   2. Most of the time [ ]
   3. Some of the time [ ]
   4. A little of the time [ ]
   5. None of the time [ ]
35. In the past four weeks, about how often did you feel nervous?

(Read Options. Single Response)
1. All of the time [    ]
2. Most of the time [    ]
3. Some of the time [    ]
4. A little of the time [    ]
5. None of the time [    ]

Sequence guide: If 35 = 5 Go to 37

36. In the past four weeks, about how often did you feel so nervous that nothing could calm you down?

(Read Options. Single Response)
1. All of the time [    ]
2. Most of the time [    ]
3. Some of the time [    ]
4. A little of the time [    ]
5. None of the time [    ]

37. In the past four weeks, about how often did you feel hopeless?

(Read Options. Single Response)
1. All of the time [    ]
2. Most of the time [    ]
3. Some of the time [    ]
4. A little of the time [    ]
5. None of the time [    ]

38. In the past four weeks, about how often did you feel restless or fidgety?

(Read Options. Single Response)
1. All of the time [    ]
2. Most of the time [    ]
3. Some of the time [    ]
4. A little of the time [    ]
5. None of the time [    ]

Sequence guide: If 38 = 5 Go to 40

39. In the past four weeks, about how often did you feel so restless you could not sit still?

(Read Options. Single Response)
1. All of the time [    ]
2. Most of the time [    ]
3. Some of the time [    ]
4. A little of the time [    ]
5. None of the time [    ]

40. In the past four weeks, about how often did you feel depressed?

(Read Options. Single Response)
1. All of the time [    ]
2. Most of the time [    ]
3. Some of the time [    ]
4. A little of the time [    ]
5. None of the time [    ]

41. In the past four weeks, about how often did you feel everything was an effort?

(Read Options. Single Response)
1. All of the time [    ]
2. Most of the time [    ]
3. Some of the time [    ]
4. A little of the time [    ]
5. None of the time [    ]

42. In the past four weeks, about how often did you feel so sad that nothing could cheer you up?

(Read Options. Single Response)
1. All of the time [    ]
2. Most of the time [    ]
3. Some of the time [    ]
4. A little of the time [    ]
5. None of the time [    ]

43. In the past four weeks, about how often did you feel worthless?

(Read Options. Single Response)
1. All of the time [    ]
2. Most of the time [    ]
3. Some of the time [    ]
4. A little of the time [    ]
5. None of the time [    ]
G. RISK FACTORS – Physical Activity

As the following questions relate to certain groups of people I need to ask

44. What is your work status?
   (Read Options if necessary. Single Response)
   1. Full time employed [   ]
   2. Part time employed [   ]
   3. Unemployed [   ]
   4. Home duties [   ]
   5. Retired [   ]
   6. Student [   ]
   7. Other (Specify) [   ]

Sequence guide: 44 > 2 (do not work full or part time at all) go to 46

45. When you are at work, which of the following best describes what you do?
   Would you say:
   (Read options. Single response. Interviewer note: if the respondent has multiple jobs, include all jobs)
   1. Mostly sitting or standing [   ]
   2. Mostly walking [   ]
   3. Mostly heavy labour or physically demanding work [   ]
   4. Don't know / Not sure [   ]
   5. Refused [   ]

46. In a usual week, on how many days do you walk for at least 10 minutes at a time [while at work], for recreation, exercise, to get to and from places, or for any other reason?
   (Single Response)
   1. Zero days [   ] Go to 6
   2. Days per week ___ Go to 6
   3. Don't know/Not sure [   ] Go to 6
   4. Refused [   ] Go to 6

47. What is the usual total time that you spend walking per day?
   (Single Response. Enter number)
   1. Minutes per day [   ]
   2. Don’t know / Not sure [   ]
   3. Refused [   ]

48. In a usual week, on how many days do you do moderate activities for at least 10 minutes at a time, such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes some increase in breathing or heart rate?
   (Single Response)
   1. Days per week [   ]
   2. No moderate activities [   ]
   3. Don’t know / Not sure [   ]
   4. Refused [   ]

49. In a usual week, on how many days do you do any activities designed to increase muscle strength or tone, such as lifting weights, pull-ups, push ups, or sit ups?
   (Single Response. Interviewer note: enter number of days)
   1. Days per week [   ]
   2. No muscle strength or toning activities [   ]
   3. Don’t know / Not sure [   ]
   4. Refused [   ]

50. In a usual week, on how many days do you do vigorous activities for at least 10 minutes at a time, such as running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate?
   (Single Response)
   1. Days per week [   ]
   2. No vigorous activities [   ]
   3. Don’t know / Not sure [   ]
   4. Refused [   ]
H. RISK FACTORS – BMI

51. What is your height without shoes?
   (Single Response)
   1. Centimetres ___
   OR
   2. Feet : Inches ___  ___
   3. Don’t know [ ]
   4. Refused [ ]

52. What is your weight? (Undressed in the morning)
   (Single Response)
   1. Kilograms (Kg) ___
   OR
   2. Stones : Pounds ___  ___
   3. Don’t know [ ]
   4. Refused [ ]

I. RISK FACTORS - Alcohol

Now to change the subject.

53. How often do you usually drink alcohol?
   (Single Response)
   1. I don’t drink alcohol [ ] Go
to J
   2. Less than once a week [ ]
   3. On 1 or 2 days a week [ ]
   4. On 3 or 4 days a week [ ]
   5. On 5 or 6 days a week [ ]
   6. Every Day [ ]
   7. Refused [ ]

54. A Standard Drink is equivalent to a schooner or midi of full strength beer, a glass of wine or a nip of spirits. On a day when you drink alcohol, how many drinks do you usually have?
   (Single Response)
   1. 1 or 2 drinks [ ]
   2. 3 or 4 drinks [ ]
   3. 5 to 8 drinks [ ]
   4. 9 to 12 drinks [ ]
   5. 13 to 20 drinks [ ]
   6. More than 20 drinks [ ]
   7. Refused [ ]

J. RISK FACTORS – Smoking

55. Do you or any family members smoke inside the home?
   (Single Response)
   1. Yes [ ]
   2. No [ ]
   3. Refused [ ]

56. Which of the following best describes your smoking status?
   (Single Response. Read options)
   1. I smoke daily [ ]
   2. I smoke occasionally [ ]
   3. I don’t smoke now but I used to [ ]
   4. I’ve tried it a few times but never smoked regularly [ ]
   5. I’ve never smoked [ ]
   6. Refused [ ]

Sequence guide: If 56 = 4 or 5 (non-smoker) go to section K
If 56 = 3 (ex-smoker) go to 59

57. How soon after you wake up do you usually smoke your first cigarette?
   (Single Response)
   1. 0 – 14 minutes [ ]
   2. 15 – 29 minutes [ ]
   3. 30 – 59 minutes [ ]
   4. 1 – 2 hours [ ]
   5. More than 2 hours [ ]

58. On average how many cigarettes do you smoke per day or each week?
   (Single Response. Enter number)
   1. Daily ___
   2. Weekly ___
   3. Monthly ___
   4. Don’t know [ ]

Sequence guide: Go to Section K
59. When did you last smoke?
(Single Response)
1. Yesterday or today  [ ]
2. 2 days to 1 month ago  [ ]
3. 1 month to 6 months ago  [ ]
4. 6 months to 1 year ago  [ ]
5. 1 to 5 years ago  [ ]
6. 5 to 10 years ago  [ ]
7. More than 10 years ago  [ ]

K. NUTRITION

Now to some questions about food.

60. How many serves of vegetables do you usually eat each day?
(Single Response. Interviewer note: a serve = half cup of cooked vegetables or 1 cup of salad)
1. One serve or less  [ ]
2. Two to three serves  [ ]
3. Four to five serves  [ ]
4. Six or more serves  [ ]
5. Don’t eat vegetables  [ ]
6. None  [ ]
7. Don’t know  [ ]

61. How many serves of fruit do you usually eat each day?
(Single Response. Interviewer note: a serve = 1 medium piece or 2 small pieces of fruit or 1 cup of diced pieces)
1. One serve or less  [ ]
2. Two to three serves  [ ]
3. Four to five serves  [ ]
4. Six or more serves  [ ]
5. Don’t eat fruit  [ ]
6. None  [ ]
7. Don’t know  [ ]

62. How often is the meat you eat trimmed of fat either before or after cooking?
(Read Options if necessary. Single Response. Interviewer note: includes chicken, excludes fish)
1. Never / rarely  [ ]
2. Sometimes  [ ]
3. Usually  [ ]
4. Always  [ ]
5. Don’t eat meat  [ ]
6. Don’t know  [ ]

63. What type of milk do you usually consume?
(Single Response)
1. Whole milk  [ ]
2. Low / reduced fat  [ ]
3. Skim  [ ]
4. Evaporated/sweetened condensed  [ ]
5. Soya  [ ]
6. None of the above  [ ]
7. Don’t know  [ ]

L. PERCEIVED CONTROL OF LIFE EVENTS

The next few questions are again about your life in general.

64. During the past four weeks how much of the time did you feel a lack of control with your life in general:
(Read options. Single response)
1. Never  [ ]
2. Rarely  [ ]
3. Sometimes  [ ]
4. Often  [ ]
5. Always  [ ]

65. During the past four weeks] how much of the time did you feel a lack of control with your financial situation:
(Read options. Single response)
1. Never  [ ]
2. Rarely  [ ]
3. Sometimes  [ ]
4. Often  [ ]
5. Always  [ ]

66. During the past four weeks] how much of the time did you feel a lack of control with your personal life:
(Read options. Single response)
1. Never  [ ]
2. Rarely  [ ]
3. Sometimes  [ ]
4. Often  [ ]
5. Always  [ ]
67. [During the past four weeks] how much of the time did you feel a lack of control with your job security:
   (Read options. Single response)
   1. Never [ ]
   2. Rarely [ ]
   3. Sometimes [ ]
   4. Often [ ]
   5. Always [ ]
   6. Not Applicable [ ]

68. [During the past four weeks] how much of the time did you feel a lack of control with your work life (paid or voluntary):
   (Read options. Single response)
   1. Never [ ]
   2. Rarely [ ]
   3. Sometimes [ ]
   4. Often [ ]
   5. Always [ ]
   6. Not Applicable [ ]

69. [During the past four weeks] how much of the time did you feel a lack of control with your health:
   (Read options. Single response)
   1. Never [ ]
   2. Rarely [ ]
   3. Sometimes [ ]
   4. Often [ ]
   5. Always [ ]
   6. Not Applicable [ ]

M. PSYCHOSOCIAL EVENTS

70. In the last 12 months have you personally been affected by any of the following?
   (Multiple Response - Read options)
   1. Unplanned loss of job [ ]
   2. New job [ ]
   3. Family or domestic violence [ ]
   4. Death of somebody close to you [ ]
   5. Discrimination [ ]
   6. Moved house [ ]
   7. Robbed or home burgled [ ]
   8. Marriage/relationship breakdown [ ]
   9. Serious injury [ ]
   10. Serious illness [ ]
   11. Any other major events (specify) [ ]
   12. None [ ]

N. MENTAL HEALTH

71. In the last 12 months have you been told by a doctor that you have any of the following conditions?
   (Read Options. Multiple Response)
   1. Anxiety [ ]
   2. Depression [ ]
   3. A stress related problem [ ]
   4. Any other mental health problem [ ]
   5. None [ ] Go to 73
   6. Refused [ ] Go to 73

72. Do you still have [this / any of these] condition(s)?
   (Single Response)
   1. Yes [ ]
   2. No [ ]
   3. Refused [ ]
73. Are you currently receiving treatment for anxiety, depression, stress related problems or any other mental health problem?

(Single Response. Interviewer note: includes phone treatment)
1. Yes [ ]
2. No [ ]
3. Refused [ ]

Sequence guide: If 71 = 5,6 AND 73 ≥ 2 Go to O
If 72 ≥ 2 AND 73 ≥ 2 Go to O

76. During the last four weeks, how many days were you totally unable to work or carry out your normal duties because of your health?

(Single Response. Interviewer note: enter number of days off or 999 if unknown)
1. None [ 0 ]
2. Enter Days [ ]
3. Don’t know [999]

77. During the last four weeks, how many days were you partially unable to work or carry out your normal duties because of your health?

(Single Response. Interviewer note: enter number of days off or 999 if unknown)
1. None [ 0 ]
2. Enter Days [ ]
3. Don’t know [999]

0. SOCIAL CHARACTERISTICS

Now to finish off with some general questions.

Sequence guide: If 44 = 1 (work full time) go to 76

75. Do you receive a pension or benefit from the Department of Social Security?

(Multiple Response. Interviewer note: not self-funded eg superannuation & not family allowance. Includes Veterans Affairs & Overseas pensions)
1. Yes [ ]
2. No [ ]
3. Don’t know [ ]
78. What kind of work have you done for most of your life?

(Single Response. Interviewer note: if not sure get as much detail as possible ie clerk, ask what type of clerk)

1. Manager or administrator
   (eg parliamentarian, judge, general or specialist manager, managing supervisor) [ ]
2. Professional (eg scientist, architect, engineer, medical practitioner, school teacher, social work, accountant, journalist) [ ]
3. Para-Professional (eg medical or science technical officer, engineering or building technician, pilot, registered nurse, police or ambulance officer) [ ]
4. Trades person (eg metal fitter or machinist, electrician, carpenter, mechanic, cook, hairdresser) [ ]
5. Clerk (eg public service clerk, typist, data processor, receptionist, telephone) [ ]
6. Sales person or personal service worker (eg sales representative or assistant, teller, enrolled nurse, waiter or waitress) [ ]
7. Plant or machine operator or driver (eg truck, delivery van, bus, or taxi drive, fire fighter, crane operator, textile machinist, etc) [ ]
8. Labourer or related worker (eg trades assistant, hand packer, farm hand, cleaner, storeman/woman, kitchen hand) [ ]
9. Home Duties [ ]
10. Never worked [ ]
11. Other (specify) [ ]

80. Were you born in Australia?

(Single Response)
1. Yes [ ]
2. No [ ] Go to 82
3. Refused [ ] Go to 82

81. Are you of Aboriginal or Torres Strait Islander origin?

(Single Response)
1. No [ ]
2. Aboriginal [ ]
3. Torres Strait Islander [ ]
4. Both [ ]
5. Not stated [ ]

82. What is the highest level of education you have completed?

(Single Response. Interviewer note: Prompt if necessary)
1. Never attended school [ ]
2. Some Primary school [ ]
3. Completed Primary School [ ]
4. Some High School [ ]
5. Completed High School (i.e. Year 12, Form 6, HSC) [ ]
6. TAFE or Trade Certificate or Diploma [ ]
7. University, CAE or some other Tertiary Institute degree [ ]
8. Other (specify) [ ]

83. Which best describe your family's money situation?

(Read Options. Single Response)
1. [I am / we are] spending more money than [I / we] get [ ]
2. [I / we] have just enough money to get [me / us] through to the next pay day [ ]
3. There's some money left over each week but [I / we] just spend it [ ]
4. [I / we] can save a bit every now and then [ ]
5. [I / we] can save a lot [ ]
6. Don't know [ ]
7. Refused [ ]
84. Can you tell me the approximate annual gross income of your household? That is, for all people in the household before tax is taken out. I'll read out some categories and could you please tell me into which one your household's income falls?

(Read Options. Single Response)
1. Up to $12,000
2. $12,001 - $20,000
3. $20,001 - $40,000
4. $40,001 - $60,000
5. $60,001 - $80,000
6. More than $80,000
7. Not stated/refused
8. Don't know

85. How many residential telephone numbers, including mobile phones, can be used to speak to someone in this household?

(Single Response. Interviewer note: do not include Internet or fax numbers)
1. Enter number
2. Don't know

86. How many times do these numbers appear in the White Pages?

(Single Response. Interviewer note: do not include Internet or fax numbers. Total number of entries includes numbers that are listed more than once.)
1. Enter number
2. Don't know

87. Date of interview

88. Day of week interview undertaken

89. Time of day interview undertaken

90. In a survey like this, issues often arise which require further explanation. If we need to could we phone you at a later date to help clarify some issues?

(Single Response)
1. Yes (specify - record first name only) ________
2. No

Interviewer note: read next section if necessary, if not Go to 92

[SA & WA only] As some of the questions we have asked may have been distressing or caused some concern for some people, we would like to offer you a telephone number if you feel that you need to discuss some of these concerns with a qualified health professional.

[SA - Adult Mental Health Services – 24 hour crisis and emergency assistance - 131465]
[WA – Contact GP]

91. Did the respondent accept the number?

(Single Response)
1. Yes
2. No

92. Please record what language this interview was conducted in

(Single Response)
1. English
2. Italian
3. Greek
4. Vietnamese

That concludes the survey. On behalf of the SA Dept of Human Services/Health Dept of WA/Territory Health Services, thank you very much for taking part in this survey.